
How to take advantage of the relationship between the actual movement and the imaginary movement to create interactive art works to enrich the field of contemporary painting art.

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ABSTRACT

Plastic art is not only a means for the artist to express what is inside him of ideas, but rather is a means that stimulates the viewer's senses, whether visual, auditory, or even by touching materials with their different touches, thus provoking other responses in the viewer such as imagination, understanding and emotion, which is called perceptual perception, There are limits imposed by the viewer's eye and determined by the process of feeling the effectiveness of the image, the lighting, and the movement in the work of art.

Hence, the actual movement is one of the important elements that achieve the interaction of the viewer with the work, as with moving parts of the work, many forms appear, which gives new and innovative aesthetic dimensions. The research idea came based on the use of both illusory motion in lines and colors that depend on the structural properties of the shapes and their visual perception.

In addition to using the actual movement, the viewer must move parts of the work to produce renewed and innovative shapes according to the viewer's vision, and from here the research problem can be identified in the following question:

How can we benefit from the relationship between the actual movement and the imaginative movement to create interactive artworks to enrich the art of painting art?

The researcher follows the descriptive and analytical approach regarding the theoretical framework of the actual movement, inspiration, and interactivity in artistic work in the field of painting art, and the experimental approach when applying the experiment, followed by the findings and recommendations.

1. INTRODUCTION:

The viewer's relationship with the artistic work is not limited to aesthetic relationships, or just enjoyment and contemplation. Rather, it is within it an attitude relationship that depends on perceptual coexistence and the nature of the existing interaction between the viewer and the artistic work through which he can perceive innovative aesthetic feelings and reach important results that represent a natural result of his culture and artistic experiences.

Therefore, the artist must rely on innovation and renewal in the implementation of artistic work and expression in new ways and develop aesthetic solutions that keep pace with modern concepts that allowed the artist a large area of freedom in experimentation and creativity in the artwork in line with his idea and style of expression, Since each era has a culture and ideology that differs from the eras that preceded it, the development of science and technology has a

great impact on the artist's thought and philosophy, and thus the development and growth of the experimental side and the renewal of his creative tendency.

And since the aspects of life in all its forms and forms are an explanation of the existence of movement, the artist directed in his artistic works to simulate the movement, where he dealt with delusions for quite some time until he began to deal with the real actual movement in his artistic works in the modern era, Movement has become an important element of artistic expression, so with the emergence of machines in large numbers, the artist had to adapt and cope with it, and then the human need to add movement to artistic relations in the work of art has always been of great importance.

Many artists in the modern era have tended to introduce actual movement into many of their artistic works and deal with them in a way that helps to achieve their artistic idea, As the actual movement in the artwork creates new aesthetic dimensions that are taken into space and time simultaneously, as "time and space are the foundations of human life and they alone must - lay the foundations of art."

The artist must understand and realize the element of the void that surrounds the artistic work, as the artist's ability to take advantage of this space appears in a way that gives renewed and variable aesthetic dimensions related to the movement of the artwork itself, from here appears what is called the spatial value surrounding the artistic work." The actual movement value is evident in the artwork, as it highlights the three recognized dimensions and a fourth dimension, which is the element of time, and those dimensions include the moving or driving energies, whether these forces are natural, mechanical, electrical, magnetic, or even through the interference of the viewer in moving the work themselves and reformulating other parts.

Hence, a new form of art appeared, which is "interactive art", which is distinguished from any other art as it creates a dialogue between the artistic work and the interacting with it, where the viewer has the opportunity and role in interacting with the artwork either by moving in front of it or by moving part of it or by deleting or adding elements, We can say that the work achieved an interaction between it and the viewer based on the expectations of interaction that the artist sets during the implementation of the work.

1.1. Research Problem:

The postmodern artists tended to be free from the presence of a single meaning and interpretation of the artistic work, and to work on creating many interpretations and meanings depending on the type of interaction between the scenes and the work of art, As the aesthetic artistic experience became dependent on the presence of factors that stimulate the viewer's senses to discover and perceive the meanings of the artistic work according to the viewer's interpretation and perception of this interpretation, and from here the artwork has become aimed at achieving interaction with the viewer.

Then it becomes clear the importance of creating new ideas that distinguish the artwork and motivate the artist to search for solutions, alternatives and ideas for topics that attract the viewer's attention to savor the artwork and interact with it.

And with the emergence of trends calling for combining the plastic arts with different fields, whether scientific, cultural, or theoretical, which gives the artist multiple opportunities to formulate the artistic work to achieve the interaction between the scenes and the artistic work.

With the emergence of the illusory movement for a period in artistic works, especially art works, in addition to the tendency of artists to also deal with the actual movement in many of their artistic works, which added to the artistic works new and innovative artistic dimensions and values taking a space of space and time at the same time, The movement, whether illusory or actual, makes the viewer in a state of interaction with the artwork to discover new and innovative artistic relationships and formations, which made the viewer an effective role in the creative process.

From the above, the research problem can be identified in the following question: How can the relationship between the actual movement and the imaginary movement be used to create interactive visual works?

1.2. Research objectives:

The research aims to:

- find aesthetic formulas and solutions based on the relationship between actual and illusory movement in contemporary painting art work.
- To uncover new ways to achieve the interaction between the artistic work and the recipient to enrich the art of painting art.

1.3. Research importance:

- Shed light on the effect of actual movement on painting art.
- Learn about the possibility of employing the motion element to produce multiple creative formulas.
- Production of pictorial works.
- Emphasizing the role of the recipient and his interaction with the artwork to produce multiple formulations by moving the parts of the work.
- Making use of the combination of the actual movement as a moving part and the illusory movement to achieve the interactivity of the artwork.

1.4. Research hypotheses:

From the above, the researcher assumes that:

- Innovative visual visions can be formulated through the plastic variables resulting from the actual movement component in addition to the illusory movement in the artwork.
- Study the effect of actual and delusional movement to achieve the interactivity of the artwork.
- Make use of expressively and formally from the merging of the illusory and actual movement to achieve interaction between the recipient and the artwork.

1.5. Research boundaries:

- Employment of the actual movement and impulsion in the artwork by moving the parts of the work.
- Combining the techniques of mural and oil painting to produce an innovative artwork.
- Focusing on the role of both types of movement (actual and delusional) to achieve interaction between the recipient and the artistic work.

1.6. Research methodology:

- The researcher follows the descriptive and analytical approach regarding the theoretical framework of the actual, inspiring, and interactive movement in the artistic work in the field of painting art.
- The experimental method when applying the experiment.

1.7. Research terms:

- **The concept of motion:** "There are many concepts of motion and varied, but it was agreed about the existence of a relationship between the force that causes motion and the moving object or substance and the distance that this object travels and the time it takes to travel this distance."
- **Actual motion:** "is the actual movement that takes place in works of art whose components are physically moved by using the moving parts of electric energy or natural energy such as magnetism or gravity."
- **The illusory movement:** "The illusory movement is generated visually in the work, as its indications depend on the structural properties of the shapes, whose levels of influence are above the natural capabilities of the retina, so the visual response to that effect is the driving force of the design movement, One of the practical explanations for this type of kinetic deception sees that "there is a severe strain on the network due to the lack of a brain in identifying and translating the strong visual signifiers that are in conflict and contrast, so the eye becomes the main engine that activates the work."
- **Interactivity in art:** The word interactivity is composed of two words in its Latin origin, that is, from the previous work (Inter) meaning between or in between, and the word activity and the practice is useful in contrast to the theory and accordingly, when the term interactivity is translated from Latin, it means practice Any exchange and interaction between two people.
- **Theoretical framework:** The theoretical framework deals with the concept of interactivity in art and the actual movement and impulsion and their role in achieving the interactivity of artistic work in the field of arts in general and painting art especially.

2. INTRODUCTION:

Plastic art is not only a means for the artist to express what is inside him of ideas, but rather is a means that stimulates the viewer's senses, whether visual or auditory, or even by touching materials with their different touches, thus provoking other responses in the viewer such as imagination, understanding and emotion, which is called perceptual perception. There are limits imposed by the viewer's eye and approved by the process of feeling the effectiveness of the image, lighting and movement in the work of art, hence the role of the viewer in

implementing his idea and imagination in discovering and contemplating aesthetic values through interactive artworks, and the viewer becomes complementary or complementary to achieve the interactivity of the work, Positive participation with the work according to the expectations set by the artist for the type of interaction, whether emotional or skilled (whether by moving a part of the work or by moving it in front of the work or adding and deleting). From here we can define interactivity in art as indicating a relationship that aims to transform scenes from negative to positive, Whereas, the artistic work (pictorial) becomes interactive when an interaction occurs between the scenes and the artwork, which results in a communication space between them by moving the viewer parts of the artwork, thus producing new and renewed aesthetic formulas with each change in the direction of movement, whether the movement of all parts of the work or some parts, This provides an opportunity for the viewer to extract dozens of changing and innovative artistic formulations according to the viewer's desire.

In the art of painting, whether oil or mural, many and multiple attempts began calling for the abandonment of the standardization of reading the pictorial work. Rather, the artist invited to create works of art with new ideas and topics that attract the viewer and create a position that helps him to review the work again and from several angles, he sees new combinations and different relationships with each movement of the parts of the work or his own movement in front of the work.

From the foregoing, we can say that kinetic art is one of the elements that can achieve the interactivity of the artwork, considering that not all works that move are considered or considered kinetic art, However, the movement must be characterized by the effect on the viewer, whether by moving the work or by moving it himself in front of the work. The movement should also aim to enrich the artistic work in terms of aesthetics and plasticity. From the above, we can deal with the movement and its role in achieving the interactivity of the work.

2.1. Types of movement:

There are many types of movement to static movement, discretionary movement and actual movement. In this research, movement is divided into two types:

First, the delusional movement: There have been many definitions of the delusional movement, so many researchers have agreed that the delusional movement is:

"The movement that is evident in the artwork that depends on its creation on employing formal patterns according to systems and structures that are driven by the sense of sight, which makes the viewer feel the movement of the artwork despite the stability of the form."

Also, the delusional movement in psychology means:

"An illusory feeling generated by the relationship of all the elements of the artwork to each other during the eye's viewing of this work in what is called the visual reaction time confined between arousal and the sensory response to this arousal so that the viewer becomes in a psychological state, pushing to take a positive attitude towards this action, the more intense the stimulus, the less the response time.

Where "the illusory movement is generated in the work visually, as its indications depend on the structural properties of the shapes, whose levels of influence are above the natural capabilities of the retina, so the visual response to that effect is the driving force on the design movement."

And one of the scientific explanations for this type of kinetic deception believes that a severe stress occurs to the retina due to the lack of a brain's ability to identify and translate the visual signifiers that are highly inconsistent and disparate, so that the eye becomes the main engine that activates the work.

The art of optical deception, despite the statistics of its lines and shapes, aims to create a sense of my illusion with the mobility of lines and shapes by organizing lines and formations in a style and thought conscious of the properties of visual processes and methods of influencing them, There have been many methods of drawing optical illusions, either by using the opposite colors in the color circle or black and white, or by the different sizes of lines, light and shadow, repetition and transparency... and other methods of realizing optical illusions that the viewer interacts with while seeing the artwork, so the illusory movement arises, which provokes the viewer's sense of the spatial change of the shapes, so he moves his eye inside the work repeatedly, searching for the origin of the movement of the shapes, and from here the interactivity of the visual illusion works is achieved.

Where "the art of optical illusions depends on some perceptual tricks in the process of perception, which results in a kind of movement based on the fluctuation of the vision between the shape and the ground and the perception of these formulas varies according to their formal qualities and according to the perceptual visual field in which these formulas are present, as the change in the formal properties of the formulas and the change in the visual field in shape, size and color affects the perception of these formulas and their role on the surface of the artwork."

Many artists have dealt with visual art in their works as they are distinguished by creativity and suggest a delusional movement. Figure.1 deals with some of the works of the artist *Victor Vasarely*:

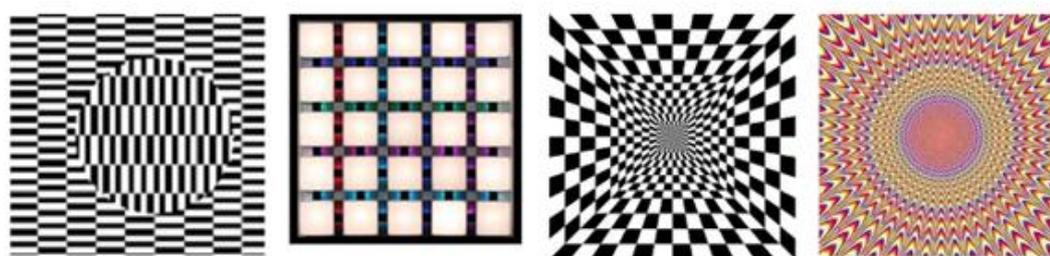


Fig.1 (a) (b) (c) (d)

Secondly, the actual movement:

"It is the movement that takes place in works of art whose components are physically moving, using the moving parts of electrical or mechanical energy or natural energy such as magnetism or gravity."

Elements of actual movement:

Actual movement requires several elements to occur, such as (material force - distance - time). The movement of matter from one space to another takes place as a result of the action of a force affecting it, and this transition takes a certain period to occur, Therefore, the absence of one of these elements causes the absence of movement, the current research, the force is

represented in the viewer who moves the parts of the artwork, so the material that is represented in the artwork moves and moves in a space of any distance and takes any time. In this way it is completed in the technical work (research experiment) the actual elements of the movement. The foundations upon which the science of mechanics (motion) is built are:

- Void: As movement means moving from one place to another, and for this to happen there must be a limited space.
- Time: in which the movement takes place because the movement is not completed without taking a part of the time that is long or short.
- The material that forms the body and shape of the sand, which is the mass.
- Power: It is what brings about movement.

With the beginning of the twentieth century, some artists presented works of art based on the actual real movement in their execution, the following are some examples of artists' works based on the use of movement:

Figure.2 illustrates a group of artist *Alexander Calder's* works that are moving pendants from wood and metal and the actual movement through the air.



Fig.2

(a)

(b)

(c)

Figures (3) and (4) illustrate a work of kinetic art in the name of the rotating glass disk by the artist Marcel Duchamp.

Fig.3 illustrates the work while still, and Fig.4 illustrates work while in motion:



Fig.3



Fig.4

We can say that the advantages of kinetic art are many, and from the above, they can be deduced as follows:

- The merging and combining of the different fields of arts to produce artistic works of multiple aesthetic and plastic values.
- The interaction of the scenes with the artwork by moving the work or rearranging and changing its parts.
- A departure from the static, traditional form of artistic work.

2.2. The scientific interpretation of movement through artistic works:

The movement is based on two basic elements, change and time. Change may occur mentally in the perception process or objectively in the visual field, or both together. And time is accompanying us in all cases, the process of forms does not depend only on the sense of sight and touch, but that the mind has an important role in seeing and perception as it is a mental process in which both imagination, knowledge and previous experiences play important roles. We can say that the concept of kinetic art (introducing movement into artistic works) differs from the concept of visual deception (illusory movement) as kinetic art is a real moving art without deception in it, as for the optical deception, it is fixed and does not move, but the movement is illusory and is not real. Hence, we can say that “Proofing the shape does not mean proving the perceived.

Whereas "kinetic art is an expression of the extension of the artistic work in time as it extended in the place. As for dealing with moving works on a purely performance basis, as a result of literally dealing with movement, However, it is only caused by motors that give the artwork a feeling of superficiality, as it is wrong to add itching to a static shape or building, as it may acquire more vitality than it will remain artificial, As for movement, it is the ability to breathe freely in new dimensions, and it is the language in which the artist's perception of the reality of emptiness can be expressed.

The aesthetic value and the composition resulting from the relationship between the elusion movement and the actual:

Many artists have tended to use the movement in their works of art, relying on the participation of the viewer either by moving in front of the work or moving by engine or by moving the work itself as the driving force of the parts of the artwork, And this is what the idea of research depends on the interaction of the viewer with the work depends on him moving the parts of the work available to move them which makes him reveal the multiple plastic variables that result from moving the work and overlapping faces with each other and creating many formulations and plastic solutions.

In addition to the elusion movement that results in visual variables such as changes in the changing relationships between the lines that are accompanied by a change in shapes which causes a kind of important movement based on the oscillation of vision between the floor and the shape In terms of research, the art of visual deception has been used to make the four designs of the wooden body, and the diversity in the use of oil painting art and frescoes (opaline glass).

The role of the viewer in the interactive work:

The artist when performing the interactive artwork puts a set of expectations of the interaction of the viewer with the artwork, it may be an interaction based on movement whether the movement of the viewer in front of the work itself figure.5 or move the scenes to some parts of the work, whether by manual or electromechanical movement in the form of work control devices figure.6.

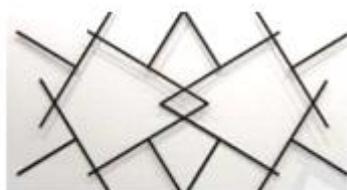


Fig.5



Fig.6

3.SUMMARY:

The artist must invent new ways and ideas to distinguish his works of art and he must develop topics that attract the viewer and provoke his senses to interact with the work, the actual movement and the elusion movement have a role to play in provoking the viewer's senses to interact with him as mentioned above, so the relationship between the actual movement and the adhesion may achieve the interactive work of pictorial artwork.

4. PRACTICAL ASPECT:

4.1. *The idea of work:*

The research experience aimed at employing the actual movement by moving parts of the work to produce multiple and variable configurations with new and innovative visual values, In addition to using the elusion movement represented by visual deception designs and employing them in multiple artistic and formative relationships, the viewer of the artwork must interact with the work by moving its parts and creating overlap between the designs together, In addition to linking wall painting art with oil painting art, opaline glass has been used in some aspects of the stereoscopic shape and oil painting in other aspects, the overlap here is not only in the overlap of designs with each other, but also the overlap of materials, Which gives more interaction opportunities for the viewer when moving to the parts of the artwork .

The following is an explanation of the research experience, its objectives, importance, and implementation steps, while presenting some of the works of art that achieve the objectives of the research:

The purpose of the experiment: to benefit from the movement of the parts of the work (actual movement) in addition to the art of deception insisting on linking oil painting art with the merit in drawing lines or cutting glass to achieve the elusion movement to achieve the interactive work of painting art of diversification in movement and materials.

4.2. The importance of experience:

Finding formulations and aesthetic solutions based on the relationship between actual movement and elusion in achieving interactive work the limits of the experience. The experience limit was limited to opaline glass and oil colors. The experience was interested in focusing on the importance of taking advantage of the art of visual deception from lines and colors to achieve the elusion movement.

4.3. Experiment steps (search procedures):

4.3.1. Phase One:

A. Processing the wood stereoscopic adopted in its design to move parts in all directions in a circular way around itself as figures 7 and 8.

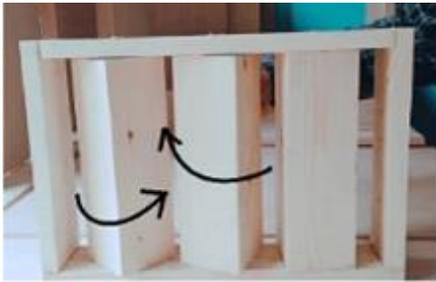


Fig.7



Fig.8

B. Download the design on the wood (with the assembling of the cut pieces) and draw the design on the four sides of the wooden shape as in the figure 9.



Fig.9

4.3.2. Phase Two:

A. Identify the materials that can be used in the implementation of the selected design.

B. Choose from them the right colors and the closest to the design colors based on the available colors.

4.3.3. Phase Three:

A. Start cutting opals according to the design of the visual deception chosen.

B. And the composition and paste of the section opaline glass and install it in the right place in the design.

4.3.4. Phase Four:

- A. Finish casting spaces between opaline pieces and coloring the frame to complete the work.
- B. And photographing the work from several angles to see. The work was analyzed according to the search idea.

The following is the presentation and analysis of 10 works (conducted by the research):

Work (1)

	<ul style="list-style-type: none">-Total work area: 60x80cm.-Colors used: blue, black, white, and milky.-Materials used: opaline glass and oil colors.-The work parts were cut into 7 different parts of size giving dozens of formulations and technical configurations.-The use of the art of visual deception in the four aspects.
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A picture that shows the overlapping aspects of the work depending on the movement of the parts



Work (2)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total working area: 55x 75cm.
- Colors used: blue, milky, beige, and white.
- Materials used: opaline glass and oil colors.
- The work parts were cut into 11 different parts in size giving dozens of formulations and artistic configurations.
- The use of the art of visual deception in the four aspects.



Work (3)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total working area: 50x 60cm.
- Colors used: Red,White,black,Orange and Blue.
- Materials used: opaline glass and oil colors.
- The work parts were cut into 13 different parts in size giving dozens of formulations and artistic compositions.
- The use of the art of visual deception in the four aspects.



Work (4)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total working area: 55x 75cm.
- Colors used: white, Black, Brown, beige, Red, Green and Milky.
- Materials used: opaline glass and oil colors.
- The work parts were cut into 9 different parts in size giving dozens of formulations and artistic compositions.
- The use of the art of visual deception in the four aspects.



Work (5)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total work area: 50 x 65 cm.
- The colors used: are Ukraine, black, violet in its shades, red, green, and milky.
- The materials used: opaline glass and oil colors.
- The parts of the work were cut into 9 equal parts, which gives dozens of formulations and artistic configurations.
- The use of the art of visual deception in the four aspects.



Work (6)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total work area: 55 x 75 cm.
- Used colors: white, black, gray, and dark purple.
- The materials used: opaline glass and oil colors.
- The parts of the work were cut into 9 equal parts, which gives dozens of formulations and artistic configurations.
- The use of the art of visual deception in the four aspects.



Work (7)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total work area: 50 x 70 cm.
- Used colors: blue / black / green / white.
- The materials used: opaline glass and oil colors.
- The parts of the work were cut into 7 equal parts, which gives dozens of formulations and artistic configurations.
- The use of the art of visual deception in the four aspects.



Work (8)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total area of work: 60 x 70 cm.
- Colors used: white, black, yellow, blue, milky, brown, red, and orange.
- Raw materials used: opaline glass and oil colors.
- The parts of the work were cut into 14 unequal sizes, which gives dozens of formulas and artistic formations.
- The use of the art of optical illusions in the four aspects.



Work (9)



- Total area of work: 55 x 75 cm.
- Colors used: white, black, blue, milky, and brown.
- Raw materials used: opaline glass and oil colors.
- The parts of the work were cut into 9 equal sizes, which gives dozens of formulas and artistic configurations.
- The use of the art of optical illusions in the four aspects.

A picture that shows the overlapping aspects of the work depending on the movement of the parts



Work (10)



A picture that shows the overlapping aspects of the work depending on the movement of the parts

- Total work area: 50 x 63 cm.
- Used colors: yellow, blue, white, black, blue, orange, red, and green (contrasting colors).
- Materials used: opaline glass and oil colors.
- The parts of the work were cut into 9 equal parts, which gives dozens of formulas and artistic configurations.
- The use of the art of optical illusions in the four aspects.



5.CONCLUSION:

From the above, the art works that combine oil painting and mural painting art (research experiment) are presented, the movement, designs, colors, and materials varied, and we note with moving parts of the work in a different way in more than one position, which gives dozens of designs and shows us the work.

From what has been previously covered in the study from the theoretical and practical side, it becomes clear to us that because of the movement of work parts from in several directions and fabricated, many new and innovative interlocking designs are produced for us in addition to the four original designs, a design on each of the four aspects, it stimulates the viewer to move the parts to create many new and innovative designs.

The results of the research and their statistical analysis: The research question was answered by applying an arbitration form for pictorial artworks (the research experience) and presenting it to a group of specialized professors to ensure the correct formulation of its items in order to measure the extent of potential “ How to take advantage of the relationship between the actual movement and the imaginary movement to create interactive art works to enrich the field of contemporary painting art”

To reach results, the researcher relied on statistical analysis to verify the validity of the research hypotheses or not, using the IBM Spss22 program to calculate the reliability and validity ratios, averages, and standard deviation for the items of the arbitration form, and this is explained in the following:

5.1. Statistical analysis using the IBM Spss22 program:

- First, the arbitration form variables:
The questionnaire includes the following variables:
 - Independent variables.
 - dependent variables.

It is represented in the response of the referees (his professors in specialization in Egyptian universities) to the items of the questionnaire, which are 10 items.

- Secondly, the statistical treatments used:
 1. Repetition and percentages.
 2. Arithmetic mean.
 3. Standard deviation.
- Third: Adopting an estimated balance according to the five-year Likart scale Table 1.

An estimated balance according to the five-year Likart scale.

Table 1

General Trend	Response	Average
Weak	From 1 to 1.80	(1)
Fair	From 1.81 to 2.60	(2)
Good	From 2.61 to 3.40	(3)
Very Good	From 3.41 to 4.20	(4)
Excellent	More than 4.20	(5)

Therefore, we will use the weighted average of the responses of the arbitrators on the items of the arbitration form.

- The percentage of responses below is a table 2 of the percentage of responses.

Table 2

Cases	Number of arbitrators	Percentage
Valid	10	100%
Excluded	0	0%
Total	10	100%

- Measuring validity and reliability
- Calculating the reliability of the Cronbach alpha method.

The value is negative due to a negative mean variance between the elements, this violates the assumptions of the reliability model, you may want to check the coding of the elements.

The following table 3 shows the percentage of responses:

Table 3

Number of arbitrators	Alpha coefficient
10	-1.610

5.2. Statistics:

The following is a table 4 showing statistics regarding the arbitration forms based on the number of arbitrators, their number (10), and the validity of all the forms that have been arbitrated are evident.

Table 4

	Items of the arbitration form	Valid	Wrong
1	The clarity of the intellectual vision of the work to achieve interactive	10	0
2	The interactivity of the work is achieved through the combination of actual and impulsive movement	10	0
3	The choice of materials corresponds to the idea of achieving the interactivity of the work	10	0
4	The plastic properties of the raw materials have been employed by various techniques	10	0
5	The materials used helped to achieve the interactivity of the work	10	0
6	The movement of actual work parts produced renewed plastic formulations	10	0
7	The workspace is suitable for realizing the idea of interaction	10	0
8	Adapting the overall structural system to the artwork to achieve interactivity	10	0
9	Clarity of the interactive viewer's role with the artwork by moving its parts	10	0
10	There is flexibility in the viewer's interaction with the artwork	10	0

Calculation of honesty, provisions of the arbitration form: Table (5)

Table (5)

	Grade	Frequency	Percent	Valid Percent	Cumulative Percent
The clarity of the intellectual vision of the work to achieve interactive	Very Good	3	30.0	30.0	30.0
	Excellent	7	70.0	70.0	100.0
	Total	10	100.0	100.0	
The interactivity of the work is achieved through the combination of actual and impulsive movement	Good	4	40.0	40.0	40.0
	Very Good	5	50.0	50.0	90.0
	Excellent	1	10.0	10.0	100.0
	Total	10	100.0	100.0	
The choice of materials corresponds to the idea of achieving the interactivity of the work	Excellent	10	100.0	100.0	100.0
	Very Good	1	10.0	10.0	10.0
	Excellent	9	90.0	90.0	100.0

The plastic properties of the raw materials have been employed by various techniques	Total	10	100.0	100.0	
The materials used helped to achieve the interactivity of the work	Very Good	7	70.0	70.0	70.0
	Excellent	3	30.0	30.0	100.0
	Total	10	100.0	100.0	
The movement of actual work parts produced renewed plastic formulations	Good	3	30.0	30.0	30.0
	Very Good	2	20.0	20.0	50.0
	Excellent	5	50.0	50.0	100.0
	Total	10	100.0	100.0	
The workspace is suitable for realizing the idea of interaction	Good	1	10.0	10.0	10.0
	Very Good	6	60.0	60.0	70.0
	Excellent	3	30.0	30.0	100.0
	Total	10	100.0	100.0	
Adapting the overall structural system to the artwork to achieve interactivity	Good	3	30.0	30.0	30.0
	Very Good	5	50.0	50.0	80.0
	Excellent	2	20.0	20.0	100.0
	Total	10	100.0	100.0	
Clarity of the interactive viewer's role with the artwork by moving its parts	Fair	1	10.0	10.0	10.0
	Very Good	3	30.0	30.0	40.0
	Excellent	6	60.0	60.0	100.0
	Total	10	100.0	100.0	
There is flexibility in the viewer's interaction with the artwork	Fair	1	10.0	10.0	10.0
	Good	2	20.0	20.0	30.0
	Very Good	1	10.0	10.0	40.0
	Excellent	6	60.0	60.0	100.0
	Total	10	100.0	100.0	

The mean and standard deviation of the arbitration form clauses: Table (6)

Table (6)

Items	N	Mean	Std. Deviation
The clarity of the intellectual vision of the work to achieve interactive	10	4.7000	.48305

The interactivity of the work is achieved through the combination of actual and impulsive movement	10	3.7000	.67495
The choice of materials corresponds to the idea of achieving the interactivity of the work	10	5.0000	.00000
The plastic properties of the raw materials have been employed by various techniques	10	4.9000	.31623
The materials used helped to achieve the interactivity of the work	10	4.3000	.48305
The movement of actual work parts produced renewed plastic formulations	10	4.2000	.91894
The workspace is suitable for realizing the idea of interaction	10	4.2000	.63246
Adapting the overall structural system to the artwork to achieve interactivity	10	3.9000	.73786
Clarity of the interactive viewer's role with the artwork by moving its parts	10	4.4000	.96609
There is flexibility in the viewer's interaction with the artwork	10	4.2000	1.13529

From the previous tables of statistical analysis, the mean and the standard deviation of the arbitration questionnaire, the following results can be drawn, by calculating the scores of the attached arbitration standard, which are designed to be between one (1) score for the lowest level, and five scores for the highest level, And what is between them for the degrees that they mediate, and each arbitrator has chosen the degree that he deems appropriate for each item of the form, as in Table (5) in which it became clear that the third item related to the compatibility of the selection of materials for the idea of achieving the interactivity of work at the highest degree, The item (1,4,5,6,7,9,10) received the highest marks, while the lowest scores were scored by each of the items (8, 2).

Through statistical analyzes of the previous tables, we can draw the following results:

5.3. Results of the research:

Through this study it was possible to achieve the research hypotheses in terms of the results associated with them as follows:

- That multiple and innovative visual visions can be formulated through the plastic variables resulting from the actual movement component in addition to the illusory movement in the artwork.
- That the actual and illusory movement influences achieving the interactivity of the artwork.
- That it can be used expressively and formally from the merging of the illusory and actual movement to achieve the interaction between the recipient and the artwork.

5.4. Recommendations:

Considering the findings of the researcher, she presents some of the proposals as follows:

- The necessity of paying more attention to research and studies on the impact of the movement and how to employ it in the new art works.
- The necessity of linking the art of mural painting art with the art of painting to enrich the art of painting art.
- To hold technical workshops and seminars to clarify the necessity of linking modern science and technology with artistic works to keep pace with the tendencies and trends of the constantly changing scenes.
- Establishing a course for complex and interactive works within the various technical colleges (specific education - fine arts - art education - applied arts).

6.APPENDIX:

	Items	Number of arbitrators	The mean	Standard deviation
1	The clarity of the intellectual vision of the work to achieve interactive			
2	The interactivity of the work is achieved through the combination of actual and impulsive movement			
3	The choice of materials corresponds to the idea of achieving the interactivity of the work			
4	The plastic properties of the raw materials have been employed by various techniques			
5	The materials used helped to achieve the interactivity of the work			
6	The movement of actual work parts produced renewed plastic formulations			
7	The workspace is suitable for realizing the idea of interaction			
8	Adapting the overall structural system to the artwork to achieve interactivity			
9	Clarity of the interactive viewer's role with the artwork by moving its parts			
10	There is flexibility in the viewer's interaction with the artwork			

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