

DYNAMIC VISION OF THE MONUMENTAL SCULPTURAL WORKS THROUGH REFLECTIVE SURFACES DEVELOP THE CAPACITY FOR CREATIVE LEARNERS OF ART

Mahmoud Mostafa El-Sayed Mohamed Metwally

Dr., Sculpture Instructor, Department of Art Education Faculty
of Specific Education Alexandria University, dr.mahmoudmostafaelsayed@gmail.com

Abstract

I've marked the twentieth century many mastermind trends started carvers looking for different ways to express their ideas and find multiple forms and concepts put into trial and thus rejoined sculptor looking at everything from shapes and materials and to topics in a new reality, which led to the detection of the internal structure of materials, to develop fiber polymers and plastics and high quality mirrors and fiberglass and other reflective materials that appear most accurate reflection on the rooftops, And different types of reflective surfaces and their characteristics, including glass and plastic mirrors and metal reflective surface, and all of these types vary all images on the surface "reflected" a different form of art, flat mirrors reflect images differ from the convex and concave and these differences are the result of different angles of light reflection from the reflective surface, and that are subject to organize an athlete according to the laws of reflection.

And care this research researcher to express a sense of where the real or alaihami by professional researcher adopted applications makes the viewer sees himself when he looks at artwork as having some divided mirrors lead to non-optical selection through overlap image viewer and broken, vacuum sensor in this business depends on the surrounding environment, as well as the integration between Visual elements and concept by sharing scenes with place and work, seeing the sights for that job. Become a part of it through his image reflected on the various parts of the work, and even be a silent dialogue with the rest of the audience with him inside, and this is reflected on the Viewer to see himself in a new default is influenced by spatial reality and the new place, It already covers this reflection phenomenon research perceive the artwork and how to handle and manipulate geometric shapes and their impact on the artistic composition, it is clear that reflective materials can be exploited in holographic form building, and to check the dynamic vision of the shape object and link the work of both the viewer and the external environment variables to work.

Keywords: dynamic vision, monumental sculptural works, reflective surfaces

Background research

In the 20th century resulted in the detection of the internal structure of materials, polymers, and fibers to create plastic and plastic mirrors and high quality alloy, fiberglass and other reflective materials that show give a reflection on the rooftops. It is necessary at this point to optical reflection phenomenon researcher and related concepts, as well as the types and characteristics of light reflective materials and properties of images formed on reflective surfaces. (Granov L, 1986, p80)

And different types of reflective surfaces and their characteristics, including glass mirrors, plastic and metal mirrors with a reflective surface, and all of these types vary all images on their surface (reflected) in different form, for example, flat mirrors reflect images differ from the concave mirrors convex mirrors and these differences are the result of different angles of reflection of light from reflective surface, which are subject to organize an athlete according to the laws of reflection.

Therefore it must be when you invest the reflective surfaces of light both in the areas of public, scientific or artistic life relying on mathematical calculations and geometric angles in assembling component parts to work, since the general nature which can be realizing through engineering management who masterminded athletic system is optical rays fall falling straight and its reflection in the angle of incidence is determined by the direction the new reflection and so on, so the business was aFaith problem of reflective surfaces units require a conscious understanding when organizing laws of reflection, and changes arising from the diversity of different surfaces, and also structural engineering for tracking relationships and correspondence and request for opening angles and inner and outer space for artwork, as well as the impact and affected units established enough on this inner and outer space for artwork, as well as its variants of light and movement and color and shape, as under construction sports systems include laws of reflection and emerging variants accounts, prepare The need to control the final look of the artwork and the plus of variables.

So you can perceive an artwork richer than physical reality. Therefore, it must be here to address the concept of public perception, and its relationship to the artwork, the perception of scientific investigation that have evolved dramatically with the turn of the century. (Douglas Davis, 1973, p103)

It describes (gilam Scott) "recognition that total system of nervous energy and mental response towards sensory alarm. And he's smooth installation of many sensory images plus the previous options correspond in mind" (Robert Scott gilam, 1980, p 46)

Through the phenomenon of optical reflection using reflective surfaces in the formulation of the holographic artwork it can achieve the vision of dynamic holographic action whether those dynamics between parts of the work among and between changes IME surround work and link and interaction with the viewer and the surrounding environment. (Amira Helmi Matar , 1974, p 77)

Search problem:

- You could invest the reflective surfaces to achieve dynamic Visual and link to the viewer and the environment to surround sculptured work?
- How can I benefit from using reflective surfaces on the wording and see holographic artwork?

Research objectives:

- 1- Reach stereoscopic formats where dynamic Visual vision through the use of reflective surfaces.
- 2- Formal relations systems through refraction of light through the glass crystals for building contemporary sculptural work.
- 3- Utilize holographic artwork link both the viewer and the external environment through the exploitation of reflective surfaces in the construction work.
- 4- Find some entrances to develop student's knowledge and very Jet Li by utilizing optical reflections reflective surfaces in building holographic form.

Hypotheses of research:

- 1- There is a positive relationship between the use of reflective surfaces in building holographic form and come out with the surrounding environment.
- 2- You can achieve dynamic vision surround format using reflective surfaces.
- 3- There is a positive relationship between the use of reflective surfaces in building holographic form and its

parts interact with each other and the interaction with the receiver.

4. to know the physical properties and chemical composition of ore reflex clear role in adding new content I have sculptured emerging artist.

Significance of research:

- Stresses that research on the relationship between science and art through the investment of scientific laws derived from a study of light and its properties.
- Detect aesthetic values of employment relationship between optical reflections reflective surfaces and dynamic vision for surround format.
- Enrich knowledge and practical experience in the field of sculpture that research students in employment reflective materials in the field of aesthetic sculpting.
- Enrich the teaching sculpture at technical colleges with a new portal sculpture with glass material in achieving progress in the educational process.
- Research sheds light on non-ores are common in art education and reflective materials.

Search terms:

1- Optical reflection:

Means optical reflection optical wave direction change falling on a reflective surface, the surface of the article when optical energy waves accepts it is kept as is, but retains and disposes of another part, shines on him, this is not to say that light energy is divided into two parts, so that it retains the physical configuration of the part, and puts another part, it means that some more energy income, came out as the smallest, and the difference between the income and Output capacity varies from the reflective surface to another, depending on the degree of refinement and color and transparency and without becoming "(Abdel Mohsen Saleh, 1974, p. 37), that is, each central to one degree or another reflects and absorbs luminescence and absorption and reflection depends irradiance on the body, on the type of material and surface condition and installation of radiation and radiation falloff. (L. granov,1986, p. 80), and on it you can define light reflection (light beam bounced from the polished surface of a certain direction whether this glass plate surface or a surface

2- Dynamic vision:

The researcher means dynamic term vision in this study to mean changing rhythm and varied in seeing and perceiving the holographic artwork by changing light reflections.

If the dynamic known as "it's science that specialises in non-regular or changing motion movement (movement or the movement of regular changing various movement of others) both in terms of magnitude or direction" (Aladdin Hamdi, p 11)

The dynamic movement in the art of rhythmic movement means the evolutionary system variable and constant change and diversity in seeing and perceiving the holographic artwork gives a sense of dramatically draws scenes, anti boredom also adds aesthetic value are more effective for artwork.

Search limits: The study is limited to:

- Historical study of light and optical reflectance and its impact in achieving dramatic functions in the artwork.
- Reflective study materials and types.
- Applied research experience is limited to using light-reflective surfaces (glass-plastic mirrors Mirrors – polished surfaces).
- Search is confined to providing training unit has many practical applications to achieve a dynamic vision of the art of 2D surround composition for students of the third party Professional Education Department, Faculty of specific education Alexandria University aimed at producing artwork based on aesthetic recruitment materials reflex in stonework painter and verbally far to open new professional horizons and variety of art education students.

Research methodology: In the theoretical framework follows int descriptive analytic.

Applied framework follows int experimental method through practical applications.

First Theoretical framework: Supports research on study of contemporary sculptures that illustrates the extent to which the sculptor to achieve aesthetic values by the aesthetic of glass material employment in sculpture creations through:

- 1- Study of concepts associated with light and the action and linked to art.
- 2- Study of concepts associated with perception and vision, and their relationship with artwork Studio surround private ones, and the impact of modern technology.
- 3- The concept of dynamic and its relationship to art.
- 4- Analysis of some of the artists used reflective surfaces in the composition.
- 5- Study of light in architecture and in sculpture especially where lighting is one of the most important elements that contribute to the exquisite atmosphere of sculptured shape terms.

-Definition of the light: -what light:

Contemporary physicists believed that (light is a uniform set of waves or electromagnetic radiation, which is spreading as a straight line within a unified Community structure, able to generate effects on the retina, called optical effects. (faris Metri Daher, 1979, p 15)

Light sources: Light sources are divided into two parts: 1 2. natural sources industrial sources.

Analysis of light: Industrial lighting is known to consist of standard optical package this package is only the optical result of gathering a large number of optical radiation, light itself consists of waves vary in length and speed, when these waves reach optical eye happen feeling light and color. "And is an experience Newton in dropping a beacon scanned italic on the surface of the glass, and had noted that the beam breaks for moving between different density and Ogg are air, glass, Newton received a white wall refraction outputs noted a number of colors are arranged as follows: red – orange – yellow – green – blue-Indigo-violet color, which we call the visible solar spectrum, because there are invisible rays, ultraviolet, infrared." (shokry Abdul Wahab, 1985, p 56-57)

Interpreting theories of light: Numerous theories interpreting physical light, those theories:

1. Newton's particle theory: Presumably Newton Newten (1642-1727) that light is a very fine particle released from the optical source in straight lines and high speed and Newton has conducted his experiments on beam of white light and discovered the phenomenon that light analysis and differentiation, and may assume Newton that the different colors of light, primarily due to the different particles. (shokry Abdul Wahab 1985, p 51)

2. Positive theory Ihigns: And presumably Christian Higgins C. Huigens (1629-1695) that light energy spread of optical source in the form of waves varies depending on the source color length tenbat. (Amina Mohamed Abdul Rahim, 1963, p 80.) According to this theory, these waves that carry light energy and implement its material light or other articles Boomerang waves too.

3. modern theory of light: says that theory developed by Maxwell 0 that light radiates as separate packages of electromagnetic energy and each package including a moving pattern or waveform, and these packages or radiate energy fast to the point of no longer including little breaks (faris metri Daher, 1979, p. 142), that light is an electromagnetic wave and these waves arise from the volatility of two one chord and another Magneto,

The dramatic functions of light:

The lighting can be assessed by how well they achieve their required dramatic functions list, the artist that controls the light optical plan following factors which have a significant impact on this control these factors are:1. the ability to preform Plasticety (Any three-dimensional vision):2. mental state that must be confirmed and maintained. " (Azza Mohamed Morsi Kahlaoui, 1979, p 77)

- Optical reflection and reflective surfaces: Beginning to use reflective surfaces in modern art: Optical reflection phenomenon have received with interest the relatively limited number of artists in the modern era, and has begun with the start of the constructivist school trends in art Constructivism , Construction took sophisticated situations operated by dynamic concept in fine work, and resulted in the emergence of kinetic art Kinetic Art , And Visual art Op.Art, which combines the impact of technology on their art form, and attention to eye allergy when she greeted the visuals, (Gamal ahmed,1989,p20) and I meant constructivism that pretty featured, and made him the focus of Visual expression, as tending to

achieve visual experience directly from the artwork and the Viewer, and edit the shape of all homtwarth, who use traditional drafting methods and materials, resulting in the emergence of new structures and materials in the construction of the artwork and thus the emergence of new concepts for movement and space, time and the environment within the artwork. (Oren Parker and Harvey K. Smith, 1974, p 43) First came the artwork reflective materials used, in constructivist movement by the artist Brancusi Brancusi, Followed by the work of artist Hans breederHans Breder, wehanzmak Hans Make, and other artists, as the actual movement artists used reflective surfaces to create various lighting effects during movement of the components of the artwork.

Optical and the effect are clear paths reflected light from reflective surfaces and will we cite them as follows:

Optical reflection law:

The first law: (Fall and equal reflection angles) and this means that the light falling on a surface level is reflected at an angle equal to the angle of his fall, which bounces from the reflective surface in the same corner as he fell, the fallen beam called optical wave meter and optical wave beam called a reflex bounce, while the reflective surface-based column separates angles fall, reflection, and it also means that the beam falling vertically on the reflective surface bounces in the same path, because the angle of falling be zero and thus the angle of reflection is Zero also.

The second law: (The reflected beam diameter beam and the vertical line on a reflective surface at a point falls, all on one level) " (shokry Abdul Wahab, 1985, p 66) And to understand the laws of optical reflection sets on hire in works of art where the artist sign optical reflections paths and thus controlled to obtain the desired result.

Types of reflective surfaces: The reflective surfaces appear finer reflection on its surface there are many types of reflective surfaces are to look as follows:

1. the water surface

2. smooth metal

3. mirrors:

A-glass mirrors: Thin glass plates are polished, covers a symbiosis with a thin layer of silver on the surface consists of photos of NEOs as a result of the reflection of light on these surfaces (percentage depends on the nature of light reflected from reflective surface, for example the surface flat 90% of almvdad reflect the light falling on it and absorbs 10% of it, either ordinary glass absorbs 5% 5% reflects 90% implements of light falling on it. (shokry Abdul Wahab, 1985, p 65)

There are mirrors its different colors than normal silver mirrors, gray or blue or pink or light brown (alvamet) and it adds a kind of beauty but that affect the degree of light reflection from the reflector surface leading to decreased legibility shapes or images reflected on the rooftops.

B-plastic mirrors: Plastic and its derivatives is a modern scientific innovations in the field of raw materials that were used to create mirrors and although glass mirrors provide accurate reflections are more tolerant to shocks, as he easily formed by simple tools available, which can be folded or twisted her or make sharp breaks on their surface, using heat and pressure as he easily punched through and cut up, and plastic forming under pressure and heat without losing its coherence, and can also retain the new form that was earned. " (said saed Hussain, 1984, p 9)

Hence, we can say that the plastic mirrors combine many characteristics of glass mirrors and plastic plastic material of potential and is therefore best used in holographic artwork.

Different shapes of mirrors and properties of images formed on them: Different forms of mirrors as reflector surface thus generated images properties vary and there are three forms of flat mirrors are mirrors and spherical mirrors (both convex and concave) and mirrors.

1. flat mirrors: Are regular mirrors, completely equal to discretionary picture object that has matching him in terms of dimensions and shape but differ about one thing is that they mirrored the situation for horizontal trends so that the right of the image formed on the surface of the mirror reflects the left of the original shape while the left image is produced when it is the right of the original shape.

2. Spherical mirrors: It forms (concave mirrors convex mirrors.)

A-Concave mirrors: "It is the reflective surface in the form of a hollow hemisphere surface arcuate inside,

cover layer into bright" shokry Abdul Wahab , 1985, p. 65) It works on collecting fallen rays in front area reflective surface so called shiny mirrors Influenced by the characteristics of images formed by concave mirrors surface after the original shape or location of concave mirror surface if the body was placed outside the women's Center, the image formed is mirrored (right figure reflected left women and vice versa) and upside (any higher figure reflected down women and vice versa), and the image is smaller than the actual size and shapes the closer the concave surfaces of the volume images formed on the rooftops And when the topic of shape to the center of the concave mirror-balled, generated images came upside down and backwards and is equal to the size of the shape.

B-convex mirrors: "Completely concave mirrors are similar, except that the outer surface is covered with bright-disaggregated class" and working to break up the fallen rays on her so called divided mirrors, convex mirror opens up towards the light source, a mirror at an angle wide on the periphery, while the image is formed on concave mirror sometimes and other times real discretionary, the image formed on the convex mirror always discretionary and moderate (not upside down) and the microcosm of the size of the original shape, and is less than a length For women, the reflected images are increasingly mutated on the outskirts of convex mirror in the middle.

3-Non regular mirrors: And are intended to mirror that gathers intelligence and characteristics of concave and convex planar surfaces irregularly, Surface irregularity leads in this type of mirror to reflect light in different directions and is scientifically called dispersion or disperse light, and they are subject to illegal optical reflection (Bertamoris Parker, 1979, p 9)

Sports management and its relationship to the optical reflection: Sports management is necessary when using reflective surfaces, and note that general nature which can be seen is the geometric nature which lies behind the simple mathematical system in optical rays fall falling straight and its reflection of measurable mathematical angle, the reflected ray continues in a straight line until it hits the reflective surface, as the angle of incidence is determined by the direction reversal

Cognition and its importance for the artwork, and influencing factors:

Optic demonstrate: Visual communication is through the eye by light reflected from the visuals which receive the eye by retina lens, consists typically has a highly varying degrees of Web portal, of multiple surfaces, and substantive stuff that skins "component and then you move the nerve signals to the brain are some physiological changes in the nerves and brain cells, which cause awareness stuff and feel it, and alerting capabilities to think and respond , Which the mind is doing his part in conveying that impression from the outside world in the form of pictures "(luckiesh.m,1965,p.5) and Visual reception process requires the skills related to the ability to sense the location and the size and shape of the motion of things, or topics surrounding the perceived shape, and controls the level of mental activity of an individual and his ability to observe in the visible manifestations of the location.

"Total awareness that process Visual for most people in successive phases beginning with the overall Outlook, then to the analysis and understanding of relationships between the parts, and then rebuild the parts in College again" (Yusuf Murad, 1965, page 162)

The importance of cognitive dimension in the artwork: Besides the artist's attention to knowledge, experience and ideas that goes around building and content of artwork, you must pay attention also to cognitive dimension to viewers receiving this action, as an integral aspect of the artist's experience, this is even more important in the current search as interested in vision and perception changes where it becomes necessary to clear visual message to the Viewer, and include for the attractions and excitement, and the implications of different and dynamic, kinetic, and not available to the artist through identifying aspects of the cognitive dimension.

And a place in the realization of the artwork: That time reveals the symmetry (or similarity) by continuing (or permanence), and reveals the heterogeneity (or differences) through relay (or straight), and place likewise, reveals a unit, from where it (connected) and reveals the multiplicity (or sunny) is a compound of its parts, and a spatial and temporal reality with these printers, which makes it impossible to establish any separator between time and place for this "Alexander Alexander "Takes off on time and selected is the place that takes off where buckets (or pluralistic) is time, and if it was time to just follow, and the place was just an empty unit" (Zakaria ebrahem, 1987, p 147)

-Abstraction and subject: Abstract art aimed at ridding the technical installations of the representation of nature, a desire to create a new fact, and absolutely enjoyed art and sincere, where artists used geometric shapes to create a dynamic relationship between the abstract elements and lines and spaces, and the value

of the abstract says "Susan Langer Sozan Lanjer "To deprive the shapes in art to look clearly and become apart of regular use and describes new uses to function as symbols, to reflect the human conscience" (rady hakem, 1986, p 17) ,

The artist has sought to make the expressive function of geometric elements and be based on the absolute expression of the essence of things is the most enduring, abstraction is an essential part in the work of the artist who reframes his idea of Visual reality, where abstraction looking substance (expression), and through a process of abstraction artist recognizes what is common among many things, and ultimately create a circular image, Characteristics of tangible objects, which are fleeting and more lasting image is because it's an expression of the essence of things, " Abstract art represents mental realism, because it puts in as many corners of the shape instead of a single perspective. In order to provide everything from the corner which highlights the nature of truth "(Abdel Fattah Reedy, 1981, p 138)

-A new concept for the recipient: Modern fine arts allowed to watch a positive role, sometimes to the extent of actual participation, and events within variables artwork, even the role of the viewer part of art interests when creating the artwork, and carried out some work on how to make their parts can be moved and changed by the Viewer, allowing modification of forms and colors and artistic working relationships as seeing the sights, providing an opportunity for aesthetic judgments, and develop independent taste has , And no longer just a recipient of the artwork

Dynamic definition:

Define dynamic arts encyclopedia: "is the derivative of the Greek word (Dynamikos)

That means power and energy, a branch of mechanics which means strong influence research on moving objects "(Runes (D.D) Suhrickel (H.G), 1946, p. 294) , Also known as Aristotle's dynamic "as do is force with force", in the sense that the dynamic is a powerful impact on bodies in motion are affected by previous force change.

The importance of dynamic Visual artwork: So dynamic in the fine art of rhythmic movement, meaning the system variable and constant, any change in the system of rhythmic movement of plastic almfradat, "dynamic movement is measured for each transaction in the evolution and change" and is therefore considered an important foundation in building the artwork, because without them there would be no movement, and no artistic style in dealing with your vocabulary, so I knew the meaning of the art dynamic rhythm which is a basis for your designm , "Fine artwork covers a range of different tunes and one is bigger than all the other sovereign tunes tunes representing focus artwork (sovereign Center, or point of impact) while the rest of the other tunes supplementary items that contribute to the diversity of artistic work and working on giving technical characteristics.

-Movement arising from the use of reflective surfaces: Is a kind of traffic originates on the reflective surfaces of various types, and reflect the realities of an invisible pivot, and depends on the optical reflection laws, Emerging movement depends on the use of reflective surfaces on important basic tools are the reflective materials and body problem, and organize the sport forms of artwork in the environment as a tool for change and also viewing angle and condensation.

-Raw material: it is the basic tool that appears on their surfaces different aspects give a sense of movement, strictly depends the purity reflection reflective surface and severity of refinement.

-Reflective surface: And represent the body by the reflective surface when it formed an important role in movement, where emerging image type on the surface of the body Shaper on reflective surface, concave surfaces reflect the movement in different direction for what it really is and increase the rate of movement due to the image of zoom, while the convex surfaces reduces the rate of movement due to the image of the thumbnail.

-Sports management: Installation, construction and operations that are subject to the laws of optical reflection influence in ways that appear on her movement, or any change in construction planning greatly affects the overall body of artwork, through sports organization can get the simplest and most complex relationships, which affects the sense of movement.

-Environment: Bestow the external and internal environment to work, a dynamic character through reflection variables on reflective surfaces consisting of action, the artwork is gaining rhythmic, as well as the colors and lights and forms of that environment, and become business through its association with a constantly changing environment and regeneration, and unite with their environment, and become the

environment including variables is a fundamental aspect of the semantic change is visible in the artwork.

-Viewing angle: Wanakastha forms vision affected on reflective surfaces with minimal changes in the angle of vision by the Viewer, where hidden forms and other forms as the reflection angles as the reflected images of different shapes for different angles of vision too, which gives a sense of and change in vision.

-Condensation: And intended to intensify the kinds of reflective surfaces and angles in relation to one or more changes are making the environment on reflective surfaces, making it difficult mental interpretation and analysis processes which give greater intensity of movement.

Researcher finds that the dynamics in architecture mean changing rhythm and varied in seeing and perceiving the work and gives a sense of dramatically draws the viewer vs bored as adds aesthetic value more effectively by the artwork.

II: Applied window:

The importance of experience:

1- Identify the characteristics of wall composition.

2- Create multiple entries in dealing with synthetic formulations for wall profiles.

3- Clarifying the dimensions using the materials in use of synthetic formulations for your contemporary works of wall.

Trial limits: The researcher shall apply where the students practical experience and analytical study results researcher examines business models based compositional style mural art and engineering +

the building with quality education College University of Alexandria, reflective materials to implement the third band students quality education Art Education Department at the University of Alexandria's 100 demanded to produce an interactive sculptural work sarahi within a yard of the College by one job for each student to work geometric 2D surround formation ores reflex in Area of 100 cm x 70 cm rose to be higher dimensional parts height does not exceed 20 cm.

Limitation of the experiment:

- Int experience is designed to be applied over a month and a half in the form of a module composed of six lessons or six interviews by interview one week and four hours.

- Experience in business application takes four interviews and production engineering is a written composition on the shingle wipers 2D polyphonic in compositionally to make geometric-shaped compound sarahi written by each student's work in the area of 100 cm x 70 cm x 20 cm.

- Experience in the first month and is a half second of the second semester of the academic year 2016-2017 to benefit from the knowledge and experience accumulated in skill experience results.

- Experience in the classroom is dedicated to teaching the 3rd Division selected as a sample for research, as the place with the proper preparation in terms of lighting, tables, and chairs.

Plastic border to experiment:

- Khatami is experiment using plastic glass mirrors and opaque glass materials and non-reflective and treated using the methods of cutting and drilling and engineering as a basis for systematic direct modulation in third party study. - Are various experiment using materials available which fit with the idea of working with student and handled painter using synthetic formulations according to what it takes to implement the idea of creative work.

Experience: Theme: dynamic vision of stonework view through reflective surfaces for the development of creative ability for students of art:

Sculptural composition work sarahi maasarali walls of the administrative building of Alexandria University quality education

Introduction: Includes practical application across asample of students quality education 3rd Division Department of art education at the University of Alexandria in the light of the findings of the researcher of the results within the theoretical framework of research study, which aims to illustrate the philosophical dimensions and dynamic creative vision for stonework view through reflective surfaces for the development of creative ability for students of art, and to light several properties including property alanakaO and vary the

degree of light reflection in different material falling on them, including glass and plastic mirrors, and other materials that deal with large degrees of light reflection, and can invest this property through the use of reflective materials in building holographic form, thus achieving a significant degree of interaction with the surrounding environment, and its interaction with the viewer with the light falling on it, and its parts interact with each other through reverse images, transforming them and repeating them, experimental method is closely related to the goals of art education as effective practice And learning and creativity.

Goals of the experiment: General objectives:

- 1- The student knows the laws of reflection, understandable and reflective materials properties and types.
- 2- Develop your skills with reflective materials and plastic potential recognition.
- 3- Develop the student's ability to design for their reflective surfaces, to achieve dynamic visibility into shape through mathematical thinking.
- 4- The student can achieve formation and polyphonic forms reflective crude are interacting with the surrounding environment and recipient.

- Procedural objectives:

A- cognitive goals:

- Explain the concept of student reflection.
- Little student optical reflection laws.
- The student lists the types of reflective surfaces.
- The student compares the characteristics of images formed on reflective surfaces.
- The student explains the concept of dynamic shape. Student finds images formed on reflective surfaces are vertical.

B-skill goals:

- The student can use multiple Visual techniques to reflective surfaces.
- Designing a student pursuant to incarnate through regulation of its parts.
- The student mastered using configuration tools on reflective surfaces. pursuant to a molding with reflective surfaces available to him.

C-compassionate goals:

- Taste the student photos on surround work surfaces.
- The provisions on the work of his colleagues.
- Listening to the teacher during the commentary showing relaxed to hear about reflection of light.
- The desire to learn more about dynamic action.

Student raises new points in the commentary about the reflection and results see fig.

- Respect art as work on pairing of science and beauty.

Basic concepts of unit:

(Optical reflectance-reflective materials-plastic potential.-sports organization-the dynamic vision-building and formation)

-Raw materials and tools. Glass and plastic mirrors-reflective adhesive tape-nickel (spray) Spray - Astanltil-adhesive-widgets-saws manual sponsors-wood-cardboard.

-Teaching: (Photos and illustrations of the phenomenon of reflection-pictures of works of art made with reflective surfaces).

- A teaching unit: The unit is taught through four interviews each of them 6 hours total time 24 hours.

- Sequence of interviews: The unit should be taken into account in interviews for the objectives and moving toward the implementation of a work of art 2D a molding is dynamic vision, as observed in the sequence of interviews gradient from simple to complex.

- Assessment methods: evaluation unit interviews through:

- Discussions during interviews.
- The oral questions after each interview and at the end of the unit.
- Business valuation 2D hologram for students at the end of the unit.
- **Creation of location:** Has been creating and processing experiment place where appropriate to work, To view pictures and explain them, and tooling and materials in place on the tables so that each student using the tools and materials they want without hindrance to his colleagues.

- First interview: Topic:

- Learn the concepts of reflection, what materials and basic concepts.
- Optical reflectance and its laws,
- Multiple student some reflective materials.
- Reflective materials.

Knowledge objectives:

- Explain the concept of student reflection.
- Little student legally optical reflectance.
- Student lists some reflective materials.

Skill objectives:

- Try using reflective materials student in light reflection.

Affective objectives:

- Student seeks to learn more about the properties of light.

-Conduct the interview: The researcher with a simplified presentation of the concept of reflection, and explains the laws of optical reflection, with some examples of reflection we see in our daily reflective crude and mirrors in our homes, and some media and devices that rely on optical reflection, like a Lantern (dark pictures display device), etc.

- Assessment: According to the objectives of the lesson.

-Second interview: topic: Developing the skills of reflective materials, molding and plastic potential recognition.

Basic concepts: The plastic potential of raw materials: reflective materials and characteristics of different forms, including glass and are made of plastic, so each has its own methods and Visual techniques, as it varies in its forms also exist, and shaped pipes or different geometric shapes.

Procedural objectives: Cognitive goals:

- Explain the concept of plastic material for potential student.
- Lists several technologies used in formation of reflective surfaces

Skill goals: The student applies several appropriate techniques to form malleable ores reflective surfaces (Soft) and steel (Hard).

Compassionate goals: -Student shows enjoyable to work with new materials.

-Conduct the interview: The student explains the concept of the plastic potential of the materials, and doing a demonstration in front of the students, to illustrate the potential fine ores reflective surfaces with emphasis on methods of formation and composition, as well as methods of compilation, and installation methods for each material , Int leaves opportunity for students to experiment with ways of grouping and composition in different materials, with some guidance, and training students the possibility to combine several materials with different properties in formation.

Assessment interview: According to the targets.

- **Third interview: topic:** Designs lend themselves to implement reflective surfaces to achieve dynamic vision using the sports organization.

Basic concepts: -Sports management-dynamic vision.

Procedural objectives: Cognitive goals:

-The student knows the concept of sports management.

-The student explains how to achieve dynamic vision.

Skill goals: -Student designs several designs lend themselves to implement reflective materials to achieve dynamic vision.

Compassionate goals: Student raises new points about the dynamic vision through reflection.

Corresponding workflow: The researcher creates a dynamic concept in General and particular vision dynamics, with relation to optical reflection, how to achieve through the sports organization, employing optical reflection laws, and show some photos of artworks have been using reflective surfaces and sports organization, and then asks the seeker of students work several layouts for polyphonic forms can be implemented with reflective surfaces to achieve dynamic vision

Evaluation of the interview: What is procedural goals achieved.

- **Interview 4: topic:** Implementation of a design that has been set up to make a model.

Basic concepts: Construction here means fitting parts work together according to the specific points for completing basic and general body shape model.

Either configuration is that our operations on raw material to take a particular form, such as cutting and bending and rounded shape. Etc

Procedural objectives: Cognitive goals:

-Little student the difference between construction and composition.

Skill goals:

-A student materials in accordance with the design.

-Student conducts installations between parts of the work. -Student work well in terms of finishing.

Compassionate goals: -Respect the value of art as a student working on a combination of science and beauty.

Corresponding workflow: Retrieves a researcher with the concepts and skills students passed in previous lessons, and then explain to them the concepts of construction and composition, and the difference between them and asks the Finder of the students implement a form that is set up in the previous lesson, and choose the most suitable designs to achieve dynamic vision, the researcher chooses the appropriate raw materials with students to perform all work and students start in the implementation of the working parts, then regrouped for the final form of the work,Int draws students considered the possibility of any change in accordance with the discretion of the student through implementation phases to get the best result.

Evaluation of the interview: The interview is evaluated in accordance with the objectives of the business are also governed by specialized teachers. It is clear to the researcher information when an individual plays an important role in innovative thinking, this prerequisite and necessary but perhaps may not be sufficient without innovation emerging creative process is impossible without exercise and experimentation through structured educational process impossible sophisticated contemporary and innovative generations standing Darcy art without ID. - Wall displays of sculpture after assembled and ran with his students debate records about accessibility The plastic potential of glass in the light of the concept of abstract art in sculpture and the touch effects of raw material used and the most important methods of installation and cohesion with an emphasis on the pros and cons for each job and sculptural images from (1-20) research experience for students in second year Art Education Department at the Faculty of specific education Alexandria University academic year 2016/2017

Research experience: For students of the third party Professional Education Department School of education quality-Alexandria University



Search results:

- 1- Can exploit the characteristics of light in enriching artwork.
- 2- Optical Reflection Beeline light properties and has governed by laws and reflective surfaces there has its advantages in dealing with the greatest light reflection as to its different forms contribute to the diversity of images formed.
- 3- There are several factors control the viewer's perception of artwork including related topic or work, including what is subjective about the scenes, which change with Visual and artistic vision to work.
- 4- There were several scientific age effects on artistic vision of freedom from it and the trend toward abstraction and concept change chords and changing the physical body of artwork and direction towards mathematical thought as there was also a new concept to the Viewer.
- 5- Key features of dynamic nature and represent the rhythm of everything around us, this dynamic era, they became creative value in art.
- 6- Dynamic vision can be achieved using reflective surfaces in the building model.

Research recommendations:

1. studies on the effect of coloured light to perceive the shape object and the possibility of adding new aesthetic Summit through the light.
2. studies to address the relationship between science and art in modern variants.
3. studies on how the viewer's perception of the work of art and art practitioner knowledge need sufficient information about perception so that he can deliver his message.
4. create ateliers equipped with tools that allow the number of student and teacher the opportunity to deal with modern industrial materials.
5. fit your curriculum professional colleges surround information and skills to deal with modern materials, and training on the use of scientific thinking and scientific theories and phenomena as artistic creativity.

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