

The aesthetic recruitment of talcum stone as an unconventional material in direct sculpture and the benefit from it in the field of three-dimension expression

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Research Background:

Sculpture in general is characterized by the fact that it includes three-dimensional forms, where the sense of movement and mass through different effects of the movement of shadows that arise from the fall of light on them, "Modern art has shown us direct lessons in freedom from the domination of one material and traditional materials and responding to new materials, which the innovative eye can formulate into creative and innovative artistic templates. (Mahmoud Bassiouni, 2002, p. 213)

The stone material is one of the basic materials in the art of sculpture, and the importance of this material is due to the large number of stone sculpture works in various ancient human civilizations, and what confirms its importance is our heritage balance, represented in the stone sculpture works of the ancient Egyptian civilization, which is a pioneer of different civilizations throughout the ages, and it is worth noting the use of stone material in the art of modern stone sculpture in a way that was not prevalent before, depending on the multiplicity or difference of the type of stone in the sculptural work. One or confirmation of the nature and aesthetics of a type of stone by relying on the artist to exaggerate the sculptural formulation or to cause different and different effects in texture on the surface of the sculptural work, and also to confirm the aesthetic value by highlighting the sculptural relationships and their compatibility with the sense of stone material.

Each material has its distinctive qualities, and its importance is focused on helping to form the idea, and that the use of a material in a work of art can be performed by another with great success, and some artistic trends have emerged since the beginnings of modern art until now focused its artistic activity on employing non-traditional materials, which often depended on the nature of the different environments and the available materials in each of them. (Magdi al-Sayyid Muhammad, 1997, p. 2)

"Egypt was characterized by many natural materials that the artist was able to form over the successive generations, and each stage came with its own artistic style that is compatible with the nature, thought, philosophy and circumstances of each stage, and from the raw materials that the ancient Egyptian artist dealt with along with hard stones, the material of the soap stone, the luxury of the soap stone, represents an important pattern in the field of sculpture in various ancient civilizations, where artists were able to exploit and show it with the utmost accuracy in ways characterized by richness, diversity and beauty of luster. Ghada Jalal Hamed, 2003, p. 1.

"The material of the soap stone is one of the most beautiful and easiest sculptural materials in the formation, as it is considered one of the first stones that have been glazed, and the sculptors in ancient civilizations were able to treat it thermally and its hardness reached a Moh scale from 1 to 7 degrees, and the soap stone is chemically composed of magnesium silicate hydrate, which is multi-species and bicycles, including talc stone of all kinds and snake stone Serpentin Of all kinds, which is different in its natural properties, some hairy and some paper and crystalline, and there is a type that contains a proportion of solid thermolite. In the modern era, it has attracted many plastic artists in Europe and

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America, as well as craftsmen around the world in the formation of artworks and craft products because of the possibilities of the material of the richness in the formation and diversity of color gradations with a marble appearance.

Talc stone is available in many parts of the world as well as found in Egypt in Wadi Al-Allaqi south of Aswan and Badari and the far eastern desert, and there is a green type in the valley of um Drees in Qena and a black type in the northwest in Qusayr. Contemporary sculpture in Egypt has not benefited enough as a sculptural material with multiple aesthetic possibilities, especially for its plastic capabilities of any size, no matter how accurate, as well as diversification in the output of one artwork through the final treatments of the surface and color degree according to the artist's desire, and most importantly control its hardness, which ranges from one type to another according to temperature" (Ghada Jalal Hamed, 2003, p. 1)

"Each sculptural work has a specific functional content, whether moral or material, and the functional content is related to the elements of the sculptural work, material, form and expression. The material is the most related to the content, when the material agrees with the idea and content of the work, its impact is positive in evaluating the function of the artwork, and what is meant by the functional aspect is not limited to the utilitarian aspect of the use of sculptural work, whether applied or decorative, but on the moral side with literary and emotional content as well.(Muhammad Ishaq, 1994, p. 39)., The concept of material has differed in the modern era and turned from a material to a concept, as it was associated with functional content, as it could be adapted to the artist's thought and vision, and everything in the world became capable of being a material in the hands of the artist who treats it according to his own sense and method.

The researcher believes that the use of raw talcum stone in the art of modern stone sculpture enriches the field of sculpture as the talcum stone of the types of stones is hard and at the same time coherent has taken advantage of the sculptor that property and formed the smallest and most accurate works in showing the details as the ancient Egyptian sculptor was able to discover another property that is not available in all other types of stones, which is the possibility of emptying it easily and a set of sharp tools.

"Man continued to use the direct tool until recently, and the human hand was the source of energy, and the tool was stone (platen), and in the age of iron, bronze and copper the most sophisticated metal tool appeared, but the human hand remained the engine of this tool" (Afif Bahnasi, 1997, p. 23)

Plato had identified the importance of organizing the material of the work of art in saying that what composes beauty is the connection of the parts to each other and all in the direction of the whole and beauty in visible things as it is in others lies in symmetries and proportions" and the material means what is used in the manufacture of the form or what enters into its composition (Michel Samir Georgi, 2009, p. 57) There is a great relationship between the design of sculptural works executed on the stones and the type of stone itself, the nature of the stones as a material needs accurate calculations in their formation, as the sculptor was taking into account not to permeate his artwork large spaces inside it in order not to weaken it, but with the development of equipment and techniques used in carving stones made sculpture deal more freely in its design of stone sculptural work and this is evident through this research (Khalil Muhammad Radwan, 2010, p. 2)

The structure in the formation of talcum ore stone is subject to laws that impose themselves in terms of descriptive analysis of intellectual dialogues, and other visual, highlighting the plastic and functional values of the sculptural work, and these laws include the formal scope of the building, which in turn unites the basic elements of composition in the form of work, and the concept of

structure may refer to the form of work, while the structure is geometrically synonymous with the concept of architecture and construction.

The importance of the current research lies in experimentation in the art of sculpture and the importance of the material constituting the sculptural form and shedding light on the uses, developments and documentation old and new for the material of the talcum stone, which prompted the researcher to research, experiment and analysis of that material, explaining its advantages and possibilities of plastic and expressive and its importance in the field of sculpture as the talcum stone has not been discovered in the modern era in Egypt as a sculptural material similar in hardness to various types of other stones as well as the lack of sufficient research and information on the formation of talcum.

Search problem:

The research problem lies in the following question:

How can the plastic and aesthetic potential of talcum stone be employed as an unconventional material in direct sculpture in the light of the abstract trend and benefit from it in the field of stereoscopic expression?

Research hypotheses:

From the above, the researcher assumes that:

- It is possible to reach plastic and aesthetic entrances resulting from the aesthetic employment of talcum stone as an unconventional material in the field of direct sculpture that enriches the field of stereoscopic formation.
- There is a relationship between the use of talcum heat treatments in the development of abstract sculptural forms.

Postulates of research:

- Soap stone is a traditional plastic material since ancient civilizations.

Research Objectives:

The research aims to:

1. Studying the potential of talcum stone in terms of its advantages and disadvantages, chemical composition and the extent of benefit from talcum stone in the field of sculpture.
2. Highlighting the creative values of talcum ore at the level of contemporary sculpture in the light of the abstract trend.
3. Employing the methods of various direct carving techniques on talcum stone to improve the aesthetic values of the shape of the sculptural block .
4. Illuminate the patterns of carving stone statues.
5. Emphasizing the role of talcum in sculpture.
6. Trying to extract the aesthetic and technical connotations and values of stone statues.

Importance of Research:

- The importance of the research is due to the position occupied by the material as a formative medium and the extent to which the properties and potential of talc stone are used in the expressive process in light of its natural properties and the control of its hardness through heat treatments.
- Shed light on the extent to which the aesthetic effects that thermal treatments can achieve on talcum can be utilized.
- Revealing the plastic capabilities of talc stone of various sizes and types.
- Clarifying the relationship between sculpture and talcum in the light of the abstract trend.
- Studying the extent to which it can be hardened and its tonal tones can be controlled, which will be a new addition to the natural sculptural materials in order to enrich the sculptural process.

Research Limitations:

- Study of the material of talcum stone chemically and physically.
- Study of the most important plastic techniques and color treatments of talcum stone
- Study how to control the degree of hardness of talcum.
- Analytical presentation of talcum stone types.
- Testing the possibility of the material in terms of natural or acquired specifications and the extent of the effect of glass coatings and dyes on the surface of the material within the limits of the types of talcum stone available in Egypt.
- Studying the concept of abstraction in sculptural formation.
- The study is limited to three-dimensional stereoscopic shapes.
- The applied research experience depends on the use of talcum stone of all kinds.
- The research experience is limited to direct manual sculptural formation methods.
- Techniques that depend on the use of total materials and the available capabilities in the methods of polishing and finishing the sculptural work.

Search terms:

1. Talcum stone:

"Talc is also known as (Steatite) or soapstone soap stone for its waxy or soapy texture, which distinguishes it as a result of its low hardness, and is found in the form of lamellar masses or irregular lumps and rarely be talc integrated crystals, and its grains are completely schizophrenic and the interconnection between them is very weak, and its specific weight is 2.8 and its luster is pearl or greasy and its normal color ranges from bright white to gray and apple green, especially when it is in the form of combined masses, burned at 950 ° C to reach its hardness between 4 to 6 degrees and accepts glazing."(Mamdouh Abdel Ghafour, 2002, p. 218.)

2. Material: It means the raw material that has not been formed and operated, meaning that it is the material before it is processed, i.e. the raw material unless it is processed (Arabic Language Academy 1980, p. 57).

Amira Helmy defines the material as the material before the artist formed it and turned into plastic formations that carry aesthetic and expressive values, and include everything that is material and has the character of survival from natural materials such as stones, wood and metals, and what is manufactured from chemicals such as polyester and plastic, and what is manufactured in the form of ready-made forms of modern industry waste, and all that the environment carries of formable materials that achieve the artist's idea, and this confirms the relationship between the material and expression. (Amira Helmy Matar, 2010)

3. Mass:

It is a measure of the resistance of the body to change the state of its movement, if a certain force affects a large body of mass, it causes a change in its speed that is considered minor in relation to the change caused by the same force in the speed of a small mass body. (Alaa El-Din Hamdy, p. 51)

4. Vacuum:

Vacuum refers to the space in which an object moves, so the space consists of a set of points so that the object can be located. It is called a three-dimensional space because a point is determined by three known dimensions measured from a fixed point or from specific axes in space. (Alaa al-Din Hamdi, p. 48)

5. Heat treatments:

It is a change of material in its properties from one state to another if exposed to temperatures that results in a physical change such as the degree of hardness, transparency, opacity, or change in color or texture.

Research Methodology:

In the theoretical framework, the researcher follows the descriptive analytical approach.

In the applied framework, the researcher follows the semi-experimental approach through a set of practical applications prepared by the researcher.

The researcher addresses his topic through the descriptive and analytical approach, through the following procedures:

- Studying the reasons for the trend towards stone ore as a material for statues.
- Study, describe and analyze the different types of stone statues.
- Explain the different methods that were used in the manufacture of stone statues.

First: Theoretical Framework:

1. The material and its role in the experimentation process.
2. The plastic and expressive values of the sculpture material.
3. Studying the art of stone carving as a raw material and a plastic medium in the field of sculpture.
4. Definition of talcum, its types and whereabouts.
5. Chemical and physical properties of talcum.
6. Geological and mineralogical geomorphological phenomena of talc.
7. The most important types of sculptural formable talcum.
8. Talc stone and ancient Egyptian art.
9. Heat treatments and their effect on talcum.
10. The abstract school, its trends and some of its doctrines.

• **The role of the material in the experimentation process:**

As a result of the development of aesthetic and artistic concepts in modern art, artworks have shown that there are different concepts towards the use of the material as physical media in its construction, there are works of art that seem to have nothing to do with the material as an essential element that enters its composition, so its use is limited as a medium to record some appearances, and some artworks show the interest of artists in studying the aesthetic element of the material without exposure to a direct and specific topic. Some artists, especially in modern art, have benefited from the plastic and expressive potential of the material in confirming their artistic ideas and expressive values, as a result of technological and scientific development that helped to achieve creative ideas that transcend many of the heritage concepts of ancient civilizations in building works of art.

In the works of the Renaissance, the Italian artist Michelangelo, for example, made many of his marble works to create thin fabrics to the touch as if they were silk until it reached absolute transparency (Muhammad Reda Muhammad Al-Sayyad, 2023)

• **Plastic and expressive values of sculpture :**

Plastic and expressive values are the source of value judgments in sculptural works and the material as a constructive medium of form and expression that affects and is completely related to the value of the artwork, without which the work would not have been a form that can be perceived and judged, so the judgment on the artwork and its value is linked to the success of the relationship between the material and the rest of the elements in showing the importance of the work, and the value, whether plastic or expressive, is the product of the achievement of its formulation, and the value of the artwork results from the synergy of its three elements, the material, shape and expression, and the value of each

element It is related to other elements, in terms of its plastic and expressive value (Magdy El-Sayed Mohamed Al-Bazara, 1997), as the plastic values come from the formal construction of the work and the formulation of the elements, which is the material aspect of the work, and can be deduced and chosen in the artwork, while expressive values are the moral and emotional thing related between the artwork and the form it contains of plastic value, and the artist or viewer of it, as it is assumed that a good artwork that contains a high plastic value, also carries expressive content and values At the same level, to form together a plastic and expressive unit for the work of art. (Mohammed Abdul Hafeez Haroun, 2003)

- **Stones as a raw material and a plastic medium in the field of sculpture:**

A- Installation:

Khalil (2000) confirms that they exist in nature in the form of rock formations because they are components of the earth's crust, and they are composed of grains (interconnected molecules) and their types, hardness and color vary according to the bonding of the grains with each other and the smoothness of their grains.

B - Methods of formation:

Muhammad Ishaq Qutb (1994) mentioned that they are formed by deletion method by means of special manual chisels and special electrical equipment due to the hardness of many types of stones that are also formed by the method of assembly in formations that combine several shapes and sizes of the stone that show their variation and diversity.

C - Properties of stones:

- **Color:** The colors of the stones vary due to their many types and different composition from one place to another.
- **Texture:** The stones are characterized by the richness of their outer surface and the multiplicity of contact between sharp and rough, a smooth polished texture with a special luster can be obtained in the most solid types.
- **Hardness:** The hardness of the stones ranges from travertine to granite, which is characterized by high hardness, but its weight is heavy.
- **Contrast:** Stones are characterized by the property of contrast due to the multiplicity of colors and their abundance, for example, when placing a stereoscopic work of white marble in a green garden, we will see the contrast quite clearly between the whiteness of the stones and the greenness of the planting, and this contrast cannot be obtained in the bronze material because bronze is oxidized by weather factors to the green color, so the contrast between it and the green color is not achieved, and also wood due to its existing color. (Kholoud bint Muhammad Aqeel Al-Baqmi, 2009, pp. 71-72)

D - Stones and space:

The nature of the stone as a material needs calculations in its formation, and Khalil (2000 AD) justifies this because the artist must take into account that his stereoscopic work does not permeate the voids inside it so as not to weaken its natural hardness, with a relatively small number of works through which spaces are carried out due to the development of the number and equipment used in carving stones, and also the artist's choice of a suitable stone type to make spaces inside it, such as limestone or marble, and it is difficult to carry out work with spaces in the most solid types such as granite in the past, However, developments in equipment and tools made it possible to make spaces inside hard stones, and with the development of the artist's thought and culture, this led some artists to move towards the method of assembly and installation, which provided the opportunity for multiple spaces within the composition." (Kholoud bint Muhammad Aqeel Al-Buqami, 2009, p. 73)

- **The art of stone carving:**

Despite the interest in specialization, which is one of the features of the modern era, we cannot overlook the importance of mutual relations between different disciplines, in order to deepen and research in the field of sculpture on stone material, we stop the scientific research of geologists, to deal with important cognitive aspects, such as the properties of the minerals that make up rocks. It deals with the study of stones under many names, including: The effect of chemical composition on color and texture and the degree of cohesion and hardness. Geology "Petrology Petrology, which is the science that is concerned with the study of rocks, and this science includes the scientific term Petrology, which is a Greek word of origin with two syllables, Petro, meaning rock - logy, meaning science.

• **The science of rock description:**

Whether by describing rocks with the naked eye to verify the color, size of crystals and rock cohesion, or by studying rock under a microscope and requires the work of rock sectors to study the properties of the minerals that make up the rock and their relationship to each other.

- Metamorphic stones:

)Quartzite - Marble - Schist — slate - Albaster - Serpentine - etitaets(.

They are rocks derived from igneous and sedimentary rocks, which have been recrystallized by the effect of pressure and heat by processes called metamorphisms that necessarily lead to changes in the size of the grains or the organization of those components. Any mineral and chemical changes in the texture of rocks that suffer from transformation and transformation processes occur in response to changes in hydrostatic pressure. The creation of pressures in liquids and solutions and the rise in temperature or change in the chemistry of the components (Colin Pearson, 1987, p. 104.) The most important advantage is that they do not usually contain fossils, they have crystallized minerals and may retain layers if their origin is sedimentary, but if the degree of transformation is severe, their components lose all their original features. (Gamal Abdel Majeed Mahjoub, 2001, p. 4.)

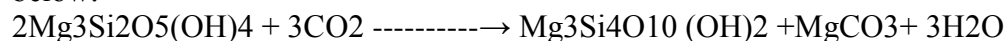
Among the most important types of metamorphic rocks are:

1. Gneiss and schist rocks.
2. Slate rocks are formed as a result of the transformation of fine-grained rocks when subjected to the influence of strong and quiet pressure.
3. Marble stone is formed as a result of the transformation of limestone and dolomite.
4. Quartz rocks are formed as a result of pure sandstone transformation.
5. Soapstones and live (talc) are formed as a result of the transformation of high-base rocks (Roger mis, 1988)

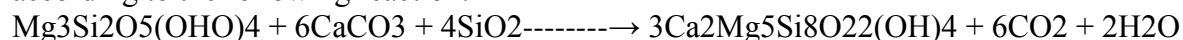
Outdoor talcum ore (aqueous magnesium silicate):-

Definition of talcum ore:

"Talc is aqueous magnesium silicate formed when the serpentine partially formed in the leaked predotite turns into talc, usually by adding silica and carbon dioxide to the reaction as in the equation below:-



When the temperature of talc rises in the presence of carbonates, it leads to the formation of trimolite according to the following reaction: -



Talc is commonly found in suprabasic rocks when affected by hydrothermal solutions.

Talc is generally found in the form of squamous lamellar aggregations or monolithic masses, rarely found in the form of flat crystals and its natural color is yellowish-green for lamellar masses, scalloped

yellowish-white, scalloped sheen green and greasy (soapy) texture that is not affected by acids." (Amal Saleh Ahmed Zein, 2002, p. 44)

" Talc-Talk = Erda stern is green, white or grey, refractive index 1.539-1.589 and hardness 1-2.5 Specific weight: 2.6-2.8 And crystallization is one mile. Chemical Law: M_3 (supported) $\text{Mg}_3(\text{OH})_3\text{Si}_4\text{O}_{10}$ (Al-Sayyid Al-Jumaili, 1999, p. 118) ”

"Talc is also known as (steatite) or soapstone for its waxy or soapy texture, which distinguishes it as a result of its low hardness, and is found in the form of lamellar masses or irregular lumps and rarely be talc integrated crystals, and its grains are completely schizophrenic and the interconnection between them is very weak, and its specific weight is 2.8 and its luster is pearl or greasy and its normal color ranges from bright white to gray and apple green, especially when it is in the form of combined masses, burned at 950 ° C to reach a hardness between 4 to 6 degrees and accept glazing." (Mamdouh Abdel Ghafour, 2002, p. 218.)

• **Types of talcum (talc):**

Steatite stone is known as (magnesium silicate hydrate), a bright white stone with a soft soapy texture, which is fragile and easy to break, characterized by the accuracy of its grains, which makes it subject to glaze on it, and it is a stone that accepts scratching, which makes it easy to form and empty in it, but after burning its hardness reaches what is equivalent to the hardness of marble, and the color of its bright white surface shows the color of the transparent glass coating clear and shiny, and the process of hardening and glazing it in one burning process.

• **Where talc is found:**

"Talc is formed as a result of the transformation or decomposition of magnesium-rich minerals such as olefin, especially serpentine, or is formed as a result of the action of solutions on some rocks, and therefore there is in many places associated with the mineralization of some metals, as happens in the Egyptian eastern desert, where talc is accompanied by copper mineralization in volcanic rocks in the areas of Al-Darih and Al-Atshan. (Mamdouh Abdel Ghafour, op. cit., p. 218.) "The most famous of these is the Hamata mine, where talc is found in the form of veins and vertical lenses within the areas of metamorphic rocks, and the veins extend to about 50 meters and a width of 0.2-5 meters and to depths of up to 80 meters below the surface of the earth.

"Talc is found in different regions in Sudan and of different types, where it is found in the area of Qalaa Al-Nahl and the Ingessana Mountains in the state of Blue Nile in the form of carbon talc, and in the Nuba Mountains area in northern Kaboos, Baliola and Khor Abu Dair, where it is found in Sur Talc, Talc Shesti and Talc Carboni in the complex of basal rocks and above the basal, and in Jabal Al-Tawil in the middle of the Batinah area in the form of Talc and in Hamsana Sol Hamed in The Red Sea Mountains and Mount Monk in the northeastern part of Sudan consist mainly of serpentine bredo tite black serpentine, peroxinite, silicate serpentine as talcum, carbonic schisti talc, and chlosite schisti (Amal Saleh Ahmed Zein, 2002, p. 45)

Its color ranges between white and green and contains 27-30% magnesium oxide, 59-63% silica oxide, 1.5-2% iron, 1.5-2% aluminum, 1.5-2 calcium oxide, and talc is classified into several grades according to the degree of hardness, texture, degree of whiteness, fire loss, and proportions of magnesium, calcium, iron... etc." (Muhammad Rajai Judeh, p. 161.)

"There are three main types of talc spread all over the world.

1. **Talcum :** It is characterized by a semi-transparent and very pure white color and is often used as a powder used in the manufacture of medical preparations and in the manufacture of some types of glass coatings.

- 2- **Soap stone:** It is characterized by a cream color with gray or green veins due to the mixing of talc with some metals such as olefin and serpentine, which is used as a powder in the manufacture of paper and electrical insulators and as a smelter by a small percentage of some types of clays.
1. **Snake stone :** It has a dark green color that is sometimes with brown or yellow veins, it is a igneous rock transformed from rocks rich in olefin, pyroxene and amphibole and this type of impurity is the reason for the overlap of colors in the composition of the stone, and yellow and brown veins appear when the presence of hydromagnesite, which is also entered as a powder in many industrial fields, especially rubber.



Figure (1) Talcum stone



Figure (2) Soap stone



Figure (3) Snake stone

<https://ar.wikipedia.org/wiki/%D8%B7%D9%84%D9%82>

- **Chemical and physical properties of talcum:**

Talc in the area of bee extraction ranges between light gray and greenish gray and medium green and we find minerals hydrothermal solutions such as sulfates, iron oxide and quartz in addition to the minerals serpentine, calcite and spinel chromium are found in interference with talc and the presence of iron sulfate minerals and chromium spinel reduces the economic value of the ore so it must be purified. (Amal Saleh Ahmed Al-Zein, 2002, p. 47)

One of the most important characteristics of talcum stone is the accuracy of its grains and the difficulty of its fusible as the burning removes the water united by it and gains its hardness as it is characterized by similarity in the general shape with marble for the diversity of its colors and veins, its colors vary according to the percentage of impurities in it and vary in its places in all countries of the world, in China there is green and pink, in Russia the black color with crystals and it is called Fool's Gold and in Egypt white, light green and light brown. Talc is one of the most capable stones Heat storage where it heats up quickly and cools slowly and the degree of purity of the stone varies depending on the origin of the rock from which it is converted:

1. It is derived from magnesium carbonate and represents 60% of global production and is considered one of the whitest and purest types of talc.
- 2- Serpentine stone soap: It is produced by the interference of serpentine and its fusion with talc with magnesium carbonate, which is named and is never pure and is used as an industrial metal and constitutes about 20% of global production.
- 3- Slysus (snake stone) and is derived from the rock of aluminium silicate: It results from the transformation of siliceous represented by quartz, which increases the percentage of silicates in the stone, making it more cohesive and represents 10% of global production.
- 4- Sedimentary magnesium, a type that contains many impurities, clay and iron hydroxide Oreboides, and prospectors are not interested in it.

- **Geomorphological phenomena of talc:**

Talc is a low-rise mound (at 50 m) in the tectonic shear zone.

- **Geological and mineral phenomena of talc:**

Talc carbonate rocks are present in shear bands affecting all ophiolite belts, and these rocks occupy a specific position between serpentinite rocks as a result of metasomatic transformation of rocks and shear, these rocks are located in bands filled by hydrothermal solutions in the contact line between Precambrian and suprabasic rocks, within shear bands. According to Gerard and Leplat (1987) that during the change of talc carbonate carbon dioxide gas was added during the removal of water and oxygen of the system. (Amal Saleh Ahmed Zein, 2002, p. 46)

• **The most important types of talc stone that can be formed sculptural:**

1. Pink talc: It is very soft and can be formed with fingernails and is easy to carve the smallest details.
2. Talc Starlet: Its color is between lemon and ochre, and sometimes it is a mixture between orange and black and easy to form.
3. This is sea foam: its color is between green, and orange and it is easy to form and harden after fire.
4. These are colors: its colors range from orange and bluish green, soft, strong and easy to form.

) www.sculpt.com/com/catalog-98/stones/soap%20stones.html(

• **Talc stone and ancient Egyptian art:**

Ancient Egyptian art is considered one of the first arts that were able to glaze talc, as well as harden it, and many scarabs and amulets have been revealed in three main areas: (Abydos, Cape, Amarna) A collection of beads of the predynastic era (4000: 2900 BC) and beads from the second civilization of his critics have also been found, as well as from the Badari civilization, which was burned at 900 degrees Celsius (Ghada Jalal Hamed, 2003, p. 22).

It is the largest statue of talc stone dating back to the twelfth dynasty, which is one of the Pharaonic gods with blue glaze length of 15 cm and is located in the Egyptian Museum and there are many collections of amulets of ancient Egyptian gods, both in the Egyptian Museum in Cairo and many countries of the world such as amulets of the god Horus and the god Tut and various scarabs.

• **Heat treatments and their effect on talc:**

Heat has a strong effect on the talc stone, when the talc stone is exposed to a temperature of 900 degrees Celsius for two hours, the chemically combined water evaporates and becomes more solid, and it is difficult to scratch, and the impurities in its chemical composition had an effect on it, resulting in the appearance of different colors and marble-like ripples and earned it a percentage of opacity.

• **Trends of abstract art:**

Abstract art depends in performance on abstract forms and models that distance themselves from similar figures and visuals in their natural and realistic image and is characterized by the artist's ability to draw the shape he imagines, whether from reality or fiction, in a completely new form that may or may not resemble the original form of the final drawing.

Abstract art is not born of the current years, which are witnessing its global liberation revolution, and if we follow the artistic doctrines that paved the way for the emergence of absolute abstraction in the works of many artists such as Kandinsky and Mondrian, we will find ourselves in front of the phenomenon of gradual growth of form in different periods of history and civilizations, and by referring to the ancient arts, primitive, Negro art and Greek art, we will see abstract entrances, although they are not intended for conscious abstraction in itself, as Henry Moore and Mondrian turned to in the modern era, The culture of the modern age sought abstraction as a conscious value, while the ancient arts were spontaneous and integrated with civilization." (Mahmoud Bassiouni, 2002, p. 213), Abstraction appears clearly in the Islamic heritage, which is full of various abstract elements that preceded modern abstract schools by many generations, and even affected their understanding in the repeated Islamic geometric forms abstract relationships, and by repeating left and right, and up and

down, other forms are generated on mathematical bases in which the unity complements the first unit, and the shape plays with the floor an important role and even exchanges properties, which calls for the one geometric shape to acquire a broader and greater meaning, when repeated in different situations in the large rhythmic symphony. (Mahmoud al-Bassiouni, 2002, p. 212)

Abstraction has appeared in ancient Egyptian art, ancient world arts and Islamic art, that is, since the dawn of history, and the term abstraction is called each of the models in which the artist moved away from representing nature in forms, so the artist took care of the structural aspect of the form, employing the sensory and structural properties of the material through abstract organizational relationships with the confirmation of its expressive content, through what the form suggests and affects it in the scenes without resorting to a direct topic.

Abstraction in contemporary plastic art is "a characteristic of the process of extracting the essence from the natural form and presenting it in a new form", and the general meaning of abstraction, which must be addressed, is that art, regardless of its different manifestations and form or parts and faculties, so that all of this is focused on the creative process that results from it" (Ahmed Fahim Ali Hassan, 2004).

Whether abstraction is comprehensive geometric or partial by simplifying arcs and curves, and whether it is complete or semi-abstract, it gives the impression of the content of the idea on which the work of art is based (Ihab Muhammad Al-Zuhri, 2000, p. 25).

Abstract art is called non-diagnostic art that does not convey nature literally, and most contemporary arts that aim to make art for the same art a major primary goal have been called, and prominent artists in this direction are: Kand Nesky, Henry Moore, Bar Parahiburuth Bevzner, Mondrian and others.

The word abstraction in contemporary plastic art "is an adjective for the process of extracting essence from natural form and presenting it in a new form." (Nemat Ismail, 1983, p. 172) Art, whatever its different manifestations, is based on abstraction and the basis of this art means "tightening the plastic relations between the parts and the whole, or between details and formula, and abstraction has become in steady and rapid steps in which it moved away from the realistic appearance of forms and elements, as the abstract artist creates colors and forms that have no connection with reality, and reality for the abstract artist is a repository of shapes and colors that he reformulates and presents with an innovative plastic vision.

- **The importance of abstraction as an artistic direction:**

Abstraction is in line with the culture of the age as a conscious value and to search for the essence of things and express them in a summary that carries with it the previous plastic experiences that the artist went through and aroused his conscience as well as abstraction provides one of the modern artistic methods artistic and educational experiences that can enrich and benefit in the field of art teaching.

- **Abstraction in modern sculpture:**

At the beginning of the twentieth century, the artist and sculptor tended to abstraction in order to be able to meet with absolute ideas that cannot do anything, and at the same time the artist sees this artistic trend as a boundless world different and distinct from the world he sees.

Contemporary abstract sculpture has become many and varied styles because of the difference of artists among themselves in terms of the psychological extent of each of them, as well as the different influences that they are affected by in their works and also we find the change of the artist's own style during his artistic life and on that we find that this artistic trend has countless methods and we will try to briefly review the most important and most obvious in the movement of modern art.

- **Geometric abstraction :**

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This style has appeared since the earliest times in prehistoric times and in the arts of the Mediterranean basin in particular, where the artist expressed the nature around it in a geometric style and this was also clearly shown in Islamic arts.

Although geometric art is old, there is a deep difference between geometric art at the present time, and in geometric abstraction when the idea is referred to its purely geometric equation, its value depends on the artist who carries it with his experience, and if he cannot abstractions are just decorative forms, the depth of the experience is what brings the artist to the part loaded with the whole, the circle may be: Hate, or a woman's breast or an orange and it may only be a circle.

Geometric abstraction is not born of imagination, but it exists in nature, and if we contemplate the system of the universe, we find that it is designed in essence according to the laws of geometry in precision and precision. This trend is synonymous with the trend of cubism as an extension of the call of "Paul Cézanne" that natural forms can be deposited for their geometric equivalent, but cubism did not reach the direction to the end to cancel all links to natural assets, it is still in its practice places to identify the sources of nature, but in the geometric abstraction, the product of the work of art since its inception depends on Use geometry figure (4).



Figure (4) Sophia vari, Continuity, bronze, 42.5 × 39 × 36 cm, 16 3/4 × 15 3/8 × 14 1/4 inches, 2006.

<https://ocula.com/art-galleries/waddington-custot/artworks/sophia-vari/continue>

Organic abstraction :

The term "organic" has been used in the field of plastic arts to describe works of art clearly related to natural elements that have been born under the names of "nature" or (representation) and have become known in the modern era as (vitality).

"The abstraction of natural models followed in the biological or organic method is an abstraction aimed at highlighting the essence of organic-biotic nature, and the spiritual vitality inherent within these models. The artist makes himself more familiar with the methods of nature and in particular the methods of growth, which are prominent vital characteristics in the hidden spiritual aspect and based on this experience he can confidently create forms typical of rhythm and biosynthesis in natural forms, thus getting rid of every secondary offer in nature, and remaining what is important and immortal" (Ahmed Abdel Aziz Abbas, 1980, p. 9) We see organic abstraction in the field of sculpture in the works of: "Henry Moore", "Jean Arp ". Figure (5)



Figure (5) Jan Arp, giant trunk, Germany, 1886.

https://ar.wikipedia.org/wiki/%D8%AC%D8%A7%D9%86_%D8%A2%D8%B1%D8%A8

: Expressive abstraction

"The idea of expression is more comprehensive than being related only to subjects of a visual nature, for abstract forms can have special expressions and meanings other than those limited by pure visual connections." (Mahmoud al-Bassiouni, 1950, p. 159)

We also see that there is a recent development of expressive abstraction, as it has emerged from artists who want to completely exclude thinking from the field of artwork, and try to follow the example of nature in its brutal and irrational folds, so we find sculptors who do not rely, for example, to polish statues and leave them with the appearance of the primary material, so their surfaces look like tree trunks, rock pieces or stones thrown by lava.

We even find from the two examples of those who build a statue from the mere collection of solid books that avoids as much as possible any modification to its nature. He uses scrap iron pieces, for example, and only welds them to build the formation he wants, so that his works look like debris in the form of assemblies.

Among the artists who produced sculptures with abstract expression were the American Herbert Ferrer, the English Kenneth Armitage, the French Osip Zadkin, and the artist Alberto Giacometti (6).



Figure (6) Albertugiacometti, A Walking Man, bronze, 1949.

<https://www.flickr.com/photos/rocor/14993425152>

Symbolic abstraction:

In ancient arts in general, primitive art and predynastic art in particular, we find many attempts to summarize the plastic experience in a "symbolic" entity, which is closer to abstraction than to the direct transfer of forms.

For example, Picasso explains this technique: when he starts portraying two people, the result is ultimately two symbols of the two people with their pulse rather than imitation.

Among the artists who took this approach were: "Ma Holy Naji", and "Barbara Hepworth", whose example her work has evolved over the last fifteen years into a kind of pure abstraction, such as Figure (7), and her first production (1929-1932) was a naturalist tendency based mostly on the close observation of the human personality. But we note that the emphasis on purely formal elements gradually increases until it finally achieves complete liberation from the paradigm, and all reference to natural themes disappears and titles become For example: "shapes", "circles", "atmospheres", "cones" instead of "mother and child" and so the talk of abstraction as an artistic trend may not end.



Figure (7) Papriara Hipworth, abstract shapes, colored wood, 1983
<https://www.stone-ideas.com/73338/british-sculptor-barbara-hepworth>

Pure Form:

It is an abstract form that is not personalized and does not approach or simulate nature and is defined by Herbert Reed is that name by which art is meant to be rid or liberated from nature, which is the essential or pure form and stripped of specific details. It is considered the language of formation itself and is able to express and convey meanings without relying on a natural origin.

Artists manipulate their images and expressions based on line, space and mass, on the basis that they can create meanings as melodies do in music and shake emotions without relying on external natural origin.

It is abstract who begin to put pure colors or shapes and these affect each other. It raises artistic problems in front of the artist and suggests solutions to him and the mutual dialogue between them and the artist is embodied in the parts of the artwork and thus slowly crystallizes a plastic reality that does not respond to any preconceived images, and does not translate any specific feeling, but is nourished by various experiences experienced by the artist in his life. (Herbert Reid, 1986, p. 269).

Second: Applied Framework:

In the applied framework, the researcher follows the semi-experimental approach.

This aspect includes the applied experience carried out by the researcher in the light of his findings of intellectual trends and entrances, through the theoretical framework of this research, whose objectives are to reveal the aesthetic concepts of dealing with stone materials in contemporary sculpture, and to extract the trends and intellectual entrances on which this approach depended, and

then provide contemporary sculptural models to clarify the idea of eating stone materials and their aesthetic dimensions.

Through that, the researcher produced fourteen sculptural works as an applied study of this research through the analysis of the sculptural works of talcum, which aims to show the philosophical and creative dimensions of contemporary sculptural formations based on abstract style.

The experimenter in art tries to provide various plastic solutions around the art form subject to experimentation, and this is what is based on the applied experience of research, the focus of the experiment revolves around the use of abstract plastic methods multiple talcum stone material.

1- The idea of the exhibition:

In the beginning, the researcher is fully aware that what he wants to measure and reach is the extent of benefit from the aesthetic employment of talcum stone as an unconventional material in direct sculpture and the adoption of contemporary thought in the production of sculptural works that achieve contemporary artistic concepts, and from here the researcher began to present and present the experience through that abstract forms, which is based on study, analysis and use in the work of stereoscopic configurations, most of the effects resulting from the use of different materials in terms of contact with surfaces can be achieved in the material Stones in their own way, in order to serve the artistic vision and artistic direction of the sculptor.

- **Direct carving on stones:**

In the research, the technique of direct carving on talcum stone was used:

It is the formation of the statue with chisels and hammer or electrical equipment on the stone piece directly, which is a drawing on uneven surfaces and implemented on various sides of the stone piece and the method of direct sculpture depends on the deletion only from the block to be carved and there is no way here to add as happens in indirect sculpture, the researcher should not start working on the stone piece in this way only when he has a full perception of what he wants from solutions and treatments from all angles of the sculptural piece.

And sometimes "the researcher resorts to preliminary studies such as drawing or works form of clay or wax, and make the necessary adjustments before the implementation of his final project using a solid material difficult to make modifications such as stone and it is worth noting that the word (Cutter) is used to express direct sculpture, whether on stone or wood.

- **Talc characteristics:**

One of the most important characteristics of the accuracy of its grains and the difficulty of its fusible as the burning removes the water united by it and earns it hardness as it is characterized by similarity in the general shape with marble for the diversity of its colors and veins, its colors vary according to the percentage of impurities in it and vary in its places in all countries of the world, in China there is green and pink, and in Russia the black color with crystals and it is called Fool's Gold And in Egypt white, light green and light brown. Talc stone is one of the most capable stones to store heat, as it heats up quickly and cools slowly, and the degree of purity of the stone varies depending on the origin of the rock from which it was turned, and talcum stone is affected by glass coatings and dyes on its surface within the limits of the types of talcum stone available in Egypt.

2- The link between the idea of the exhibition and the artistic and philosophical concepts:

The work of the exhibition tended to the abstract style in order to reveal the indirect expressive properties of the sculptural work that lie behind the relationships and situations taken by the elements within the work those properties that are included in the sculpted artwork as a form based in the void perceived by the senses When the composition moves away from the simulation of nature and tends to

abstraction, its plastic components affect its expressive connotations. When expressing a state of conflict and tug-of-war, we find it represented in the extreme prominence of the masses and the composition based on a limited number of the points and the extension of its elements in the void and the plastic components related to the elements of the carved form in terms of mass, space, size and surface

3- Endoscopy terminology:

Talc stone installation:

What is Soap Stone or Talc Talc stone consists of magnesium silicate hydrate $Mg_4Si_6O_{20}(OH)_2$ and is chemically known as Pyrophyllite is different in its natural properties, some are sliced, some are crystalline, and others contain solid termolite www.about.soupstone.com

Material:

Raw material is everything new that has not been addressed and not addressed by the hand of industry, such as diamonds that have not been polished and stone that has not been carved, and raw material is an important source of wealth and a means of expression and functional production, and remains out of sight unaware of its importance unless it is touched by the hand of the artist who reuses it in the formulation" (John Dewey, 1963, p. 18). Everything was not made or entered into industry, which is the raw material (Gebran Mas'ud, 1981, p. 607).

Balance:

It is one of the most important aesthetic values that characterize the sculptural work and the concept of equilibrium expresses a general cosmic state that reflects the equivalence of opposing forces in the universe, and from here we find the state of balance found in all things in nature, which has been translated into works of art throughout history, and the concept of equilibrium has changed as a value in the artwork, as it was old as anchoring and stability, while in modern arts, the concept of equilibrium changed, as the spaces permeated the artwork and became an important part of the sculptural composition.

Abstractions:

"Muhammad Hamza" says about abstraction abstraction of the matter or thing in philosophy and art, i.e. extracted an element of its elements, and turned to it and identified it alone, or mentally extracted the essence regardless of its external diagnosis (Muhammad Hamza, 1997, p. 15)

The "Dictionary of Neucollins" states: it is not related to concrete subjects, as it is not related to a specific thing, it is characterized by geometric formulation or on the other hand by non-representative qualities, it has no significance with certain phenomena, and it serves as a savior of things (p.5, 1982, A.G.Gimson).

4 -Materials used:

- Talcum: It is characterized by a translucent white color.
- Soap stone : It is characterized by a cream color with gray veins.
- Snakestone : It has a dark green color, sometimes with brown or yellow veins.

5- Techniques used:

- Direct sculptural formation of talc.
- Surface polishing of sculptural blocks.

6- Exhibition Objectives:

The objectives of the exhibition are to:

1. Achieving plastic fluency by employing the one semi-experimental approach, which is represented in the data of the concepts of mass and space.
2. Trying to make the spaces in the sculptural formation an element and not a value resulting from a physical existence represented by masses.

7- The importance of the exhibition:

The importance of the exhibition through what can be achieved is as follows:

- A- Benefiting from the data of the formal structure of talcum as a physical medium for stereoscopic sculptural formation in the abstract direction.
- B- The exhibition derives its importance in being a plastic experience that helps in the educational construction of the sculpture course in technical colleges.
- c- Providing learners and connoisseurs of sculpture with multiple plastic solutions for the idea or aesthetic topic.

8- The approach used in handling:

- The semi-experimental approach was used to achieve creative practices to achieve research objectives.
- Using the descriptive and analytical approach in the description and analysis of sculptural plastic works.

9. Means of achieving the procedural aspect:

The researcher relied on following a fixed methodology in most of the sculptural works through the following:

- **Material:** The researcher used talcum stone material of all kinds, in order to achieve the expressive and aesthetic dimensions to address the relations of mass and space, and the researcher used heat treatments to increase the hardness of the stone and to apply transparent paint in the works to show the natural talcum stone material.
- **Tool:** - In order to achieve the expressive and plastic values that the researcher wants to prove and achieve aesthetically, he resorted to following the method of direct formation of stone ore.
 - The use of various equipment, tools and media that are closely related to each stage of sculptural formation.
- **Means:** - The researcher used some manual and electrical equipment that facilitates the formation and finishing processes, especially with regard to the polishing and final finishing of the anthropomorphic sculptural work.
 - Apply the method of polishing the sculptural surface of the stone to confirm and show the surface values of the stereoscopic sculptural formations.
- **The technique used:** In his research experience for this exhibition, the researcher dealt with 13 artworks, experimenting with the method of direct sculptural formation, addressing abstract sculptural expression, as well as the method of polishing the surfaces of sculptural blocks.
- **Formation methodology:** The researcher followed the formation approach according to the following:
 - Preparing and shaping the basic idea of the statue using talcum.
 - There are interdisciplinary stages during which the composition is refined until reaching the artistic aesthetic vision.
 - Conducting heat treatment of the statue by exposing it to heat from 850-1000 to increase the hardness.

10 - View:

- Exhibition hall: Main exhibition hall - Faculty of Specific Education - Alexandria University.
- Approximate dimensions of the hall: length: 6 meters - width: 4 meters - height: 2 meters.
- Wall colors: white.
- Lighting and its sources: The ceiling of the hall is installed with falling light corridors and a direct wave on the works.
- Distribution of shapes inside the hall: 13 works were distributed on stands on which the artworks rise in white color and in succession and in different sizes and heights.

11- Presentation of the topic of the experiment:

The researcher relies in his work on the modern artistic vision where the formulation of the elements of formation on the basis of reduction, simplification, modification and exaggeration, as well as the sense of the rhythm of shadow and light with the movement of lines inside and outside the block, trying to adhere to what the art of sculpture accepts from the treatments without the tendency to the fragments or mental wandering, which contradicts with his academic studies and not responding to the call of modernity in a way that loses with him the art of sculpture methodological origins derived from the history of sculpture ancient and modern, and try to reach An artistic vision commensurate with the contemporary artistic proposal and in line with its ideas and philosophy.

In this part of the research, the researcher deals with the explanation and analysis of some of his works implemented in the material of stones (talc - soap - snake), which in turn is a visual sentence whose artistic concepts differ to provide his own point of view on the impact of the intellectual content of some modern artistic trends (abstract diagnostic - abstract expressionism) on the sculptural formulation and its relationship to the quality of the stone, and the nature of its structure and its impact on the aesthetics of the modern sculptural composition.

First action:



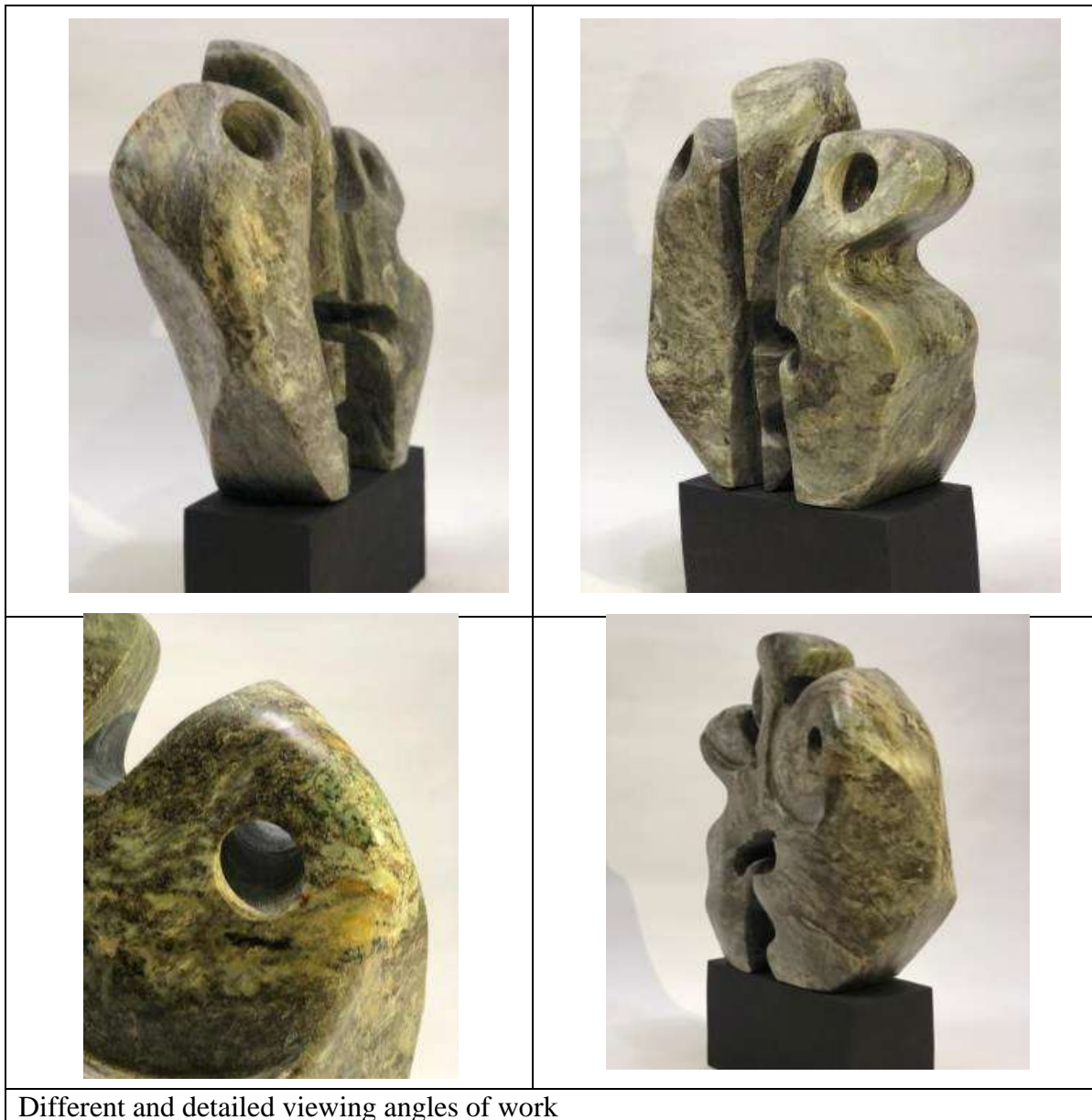
Figure (8)

Work Name: Dream

Workspace: 35cm×40cm×30cm

Material: Snakestone

Applied Performance: Live Sculpting



Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

The abstract composition presents a holistic view of the head of a human whose features become clear with the approach of the mass body in its description of the body of the head, and this seems strongly suggestive in the parts that refer to the head and the openings of the eyes, nose and mouth that express the body of a woman at the same time , and at the beginning of the idea the researcher chose a piece of stone with specific specifications, which is a large and stable mass on a base smaller than its surface, where he made a sculptural composition with an organic abstract style characterized by its vital lines as a result of its movement Free streamlined .

The light and shadow on the surface illustrate the diversity of smooth transitions between concave and convex surfaces, with the researcher relying on refining the work to clarify with him the vocabulary of the formation used and the role of the material and its impact on the form of the sculptural work. Although this configuration is one of the open configurations, that is, there is an interaction between the repetition of the blocks and the angles of their inclination with some interspersed spaces of the design, this gives the work a sense of arrangement and diversity and then a sense of hidden movement within the work as a result of calculating the plastic relationships between them.

Foundations of analysis:

First action (dream):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the presence of different types of space such as recessed cavities, piercing space, and the space surrounding the formation.
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	Base height, fits base space with configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a rectangular parallelogram.

Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a dark green snakestone with a dark green color Brown and yellow veins and confirmed with a transparent glass coating.

Second work:



Figure (9)

Business Name: Al Shumoukh

Working area: 30 cm × 45 cm × 25 cm

Materials: Snakestone

Applied Performance: Direct Sculpture



Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

Abstract composition poses a holistic view of a man and a woman whose features are clear with the approach of the body of mass in its description of the body of the person, and this seems strongly suggestive in the parts that refer to the head and the details of the body, and the researcher deliberately highlighted the features and features of the two people through the treatment of abstract plastic using concave surfaces that are bounded by soft lines flowing, the specific lines of the composition body are characterized by softness and persistence, including the consequent smooth transition between surfaces in quiet, and we note in the composition The rhythm of the masses and their distribution in a balanced aesthetic format, the researcher has tried to achieve a holistic view that combines the vocabulary of the work in a unified rhythm commensurate with the magnitude of the elements and the simplicity and beauty of roundness within the shape, which is confirmed by the sense of shadow and light in harmony with the directions of surfaces that enjoy good refinement, and he also based the composition on one point because of this strong effect on the sense of movement within the parts of the statue and its balance in space, especially with the soft lines of the composition and the relationship of its mass with the external space Which is confirmed by the natural color of the stone and allowed the rhythm of shadow and light to confirm the form and content.

The light and shadow on the surface illustrate the diversity of smooth transitions between concave and convex surfaces, with the researcher relying on refining the work to clarify with him the vocabulary of the formation used and the role of the material and its impact on the form of the sculptural work. Although this composition is one of the closed configurations, that is, there is no interaction between the repetition of the blocks and the angles of their inclination with some interspersed spaces of the design, but this does not lose the work sense of arrangement or diversity and then the sense of hidden movement within the work as a result of calculating the plastic relationships between them.

Foundations of analysis:

The second work (glory):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Rectangular body for composition	It is indicated by the external body of the sculptural mass.
Closed configuration	It is indicated by the absence of different types of vacuum such as recessed cavities and vacuum Piercing.

Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a rectangular parallelogram.
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a dark green snakestone with a dark green color Brown and yellow veins and confirmed with a transparent glass coating.

Third work:



Figure (10)

Business Name: Harmony

Workspace: 25cm× 45cm × 30cm

Material: Snakestone

Applied Performance: Live Sculpting



Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

The abstract composition presents a holistic view of a man and a woman whose features become clear with the approach of the mass body in its description of the body of the two physically connected people. The researcher relied on the foundations of the abstract trend by emphasizing the element of

movement in the line, and surfaces in the artwork, as deliberately sense the form according to the abstract direction, where this work consists of one block for two organic forms in a correlation between them, and we find that the mass is heading upward in a vertical direction, and the researcher has tried to achieve a holistic view. Combine the vocabulary of the work in a unified rhythm of the elements within the shape, which is confirmed by the sense of shadow and light harmonious with the directions of surfaces that enjoy good refinement. The work contains some curved and straight lines, which gave a sense of the formative character of both men and women and a correlation between men and women where the researcher integrated the form in a way that does not harm the composition to confirm the content and we find here that the complete artwork in an interlocking internal link to create the unity of light. We see the distribution of shadow and light gradually. Formal and formal relations depend on stability and balance between lines and blocks to suggest stability.

Foundations of analysis:

Third action (Harmony):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Rectangular body for composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the presence of different types of space such as recessed cavities and vacuum Piercing.
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	Base height, fits base space with configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 20 cm in the form of a cube.
Heat treatments	It is indicated by the increase in the hardness of the stone after being exposed to 850 degrees Celsius inside ovens Electric Fire
Color	It is indicated by the natural effects of a white translucent talc stone. And confirm it with a transparent glass coating.

Fourth work:



Figure (11)

Business Name: Peace

Workspace: 45cm×50cm×35cm

Materials: Talcum

Applied Performance: Direct Sculpting



Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

The abstract composition presents a holistic view of a woman whose features are clear with the approach of the mass body in her description of the body of the woman wearing a veil falling on her shoulder north and standing on two legs interspersed with a middle space, the researcher has tried to highlight the mass with simplistic modifications, and show the relationship of the blocks to each other and the proportion between their length and width, to suit the shape of the composition and the material used, and to reflect harmony between the surfaces of the work, and relied on the structural shape and focus on the line element in the internal details, and the outer line to highlight the work and determine its internal movement, As the calligraphy element is of great importance, especially in the work of sculpture, so the focus was on the unified movement in terms of form and details, and thus the researcher polished the work surfaces according to the lines implemented and the nature of the composition to reach surface characteristics related to the nature of the material.

The researcher relied on the sense of shape and show the mass with formative relationships tend to simplify through analyzes and curved lines, and try to find reciprocal relationships between the work surfaces and lines to reach new formative values has relied on curved lines in the details of the work despite the rigidity of the general mass to show rich linear relationships and can be continued in the composition, within the law of visual balance, as the movement of the head with the body suggests instability, so the researcher focused on harmony and compatibility in the parts of the work And create a kind of constant balance of composition.

Foundations of analysis:

Fourth Action (Peace):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body for formation	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the presence of different types of space such as recessed cavities and vacuum Piercing.
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional	It is indicated by the relationship of mass to the space

modulation	around it.
Base shape	Base height, fits base space with configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a rectangular parallelogram.
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a dark green snakestone with a dark green color Brown and yellow veins and confirmed with a transparent glass coating.

Fifth work:



Figure (12)

Business Name: Mask

Working area: 25 cm × 30 cm × 25 cm

Materials : Soap stone

Applied Performance: Direct Sculpture



Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

The abstract composition presents a holistic view of the head of Adami whose features become clear with the approach of the mass body in its description of the body of the head, and this seems strongly suggestive in the parts that refer to the head and the opening of the eye, which is only one eye and he reduced the second eye and the mouth, and at the beginning of the idea the researcher chose a piece of stone with specific specifications, which is a large and stable mass on a base smaller than its surface, where he made a sculptural composition with an organic abstract style characterized by its vital lines as a result of its free movement Streamlined .

The researcher activated the role of the vacuum with the outer line of the mass by creating an oval window vacuum in the mass to separate the feet, and this reduces the agglomeration of the composition and diversifies between its sizes.

The light and shadow on the surface illustrate the diversity of smooth transitions between concave and convex surfaces, with the researcher relying on refining the work to clarify with him the vocabulary of the formation used and the role of the material and its impact on the form of the sculptural work. Although this configuration is one of the open configurations, that is, there is an interaction between the repetition of the blocks and the angles of their inclination with some interspersed spaces of the design, this gives the work a sense of arrangement and diversity and then a sense of hidden movement within the work as a result of calculating the plastic relationships between them.

Foundations of analysis:

Fifth action (mask):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the presence of different types of space such as recessed cavities and vacuum Piercing and void surrounding the composition.

Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	Base height, fits base space with configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 10 cm in the form of a cube .
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 1000 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a cream-colored soap stone with veins Gray and confirmed with a transparent glass coating.

Sixth action:



Figure (13)

Business name: Rebellion

Workspace: 10cm×30cm×15cm

Material: Snakestone

Applied Performance: Live Sculpting



Different and detailed viewing angles of work

Forming Method:

The researcher used the method of direct formation using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the surfaces of the stone.

Technical analysis of the work:

The abstract composition presents a holistic view of a woman whose features become clear with the approach of the mass body in her description of the body body, and this seems strongly suggestive in the parts that refer to the head and body details, where the researcher achieved the concept of women's freedom in the rebellion of the mass component of the work on the surrounding space, where the shape of the external lines of the work differed and came in harmony with the surrounding space in many protrusions and protrusions and in different directions, in an attempt by the researcher to draw inspiration from the potential and features of the woman's body From the flexibility and softness and its ability to form and move , the specific lines of the composition body are characterized by softness and persistence, including the consequent smooth transition between surfaces in quiet, and we note in the composition the rhythm of the blocks and their distribution in a balanced aesthetic format, the researcher has tried to achieve a holistic view that combines the vocabulary of work in a unified rhythm.

The light and shadow on the surface illustrate the diversity of smooth transitions between concave and convex surfaces, with the researcher relying on refining the work to clarify with him the vocabulary of the formation used and the role of the material and its impact on the form of the sculptural work. Although this composition is one of the closed configurations, that is, there is no interaction between the repetition of the blocks and the angles of their inclination with some interspersed spaces of the design, but this does not lose the work sense of arrangement or diversity and then the sense of hidden movement within the work as a result of calculating the plastic relationships between them.

Foundations of analysis:

Sixth Action (Rebellion):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass

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Open configuration	It is indicated by the absence of different types of vacuum such as recessed cavities and vacuum Piercing.
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 20 cm in the form of a cuboid.
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 850 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a dark green snakestone with a dark green color Brown and yellow veins and confirmed with a transparent glass coating.

Seventh action:



Figure (14)

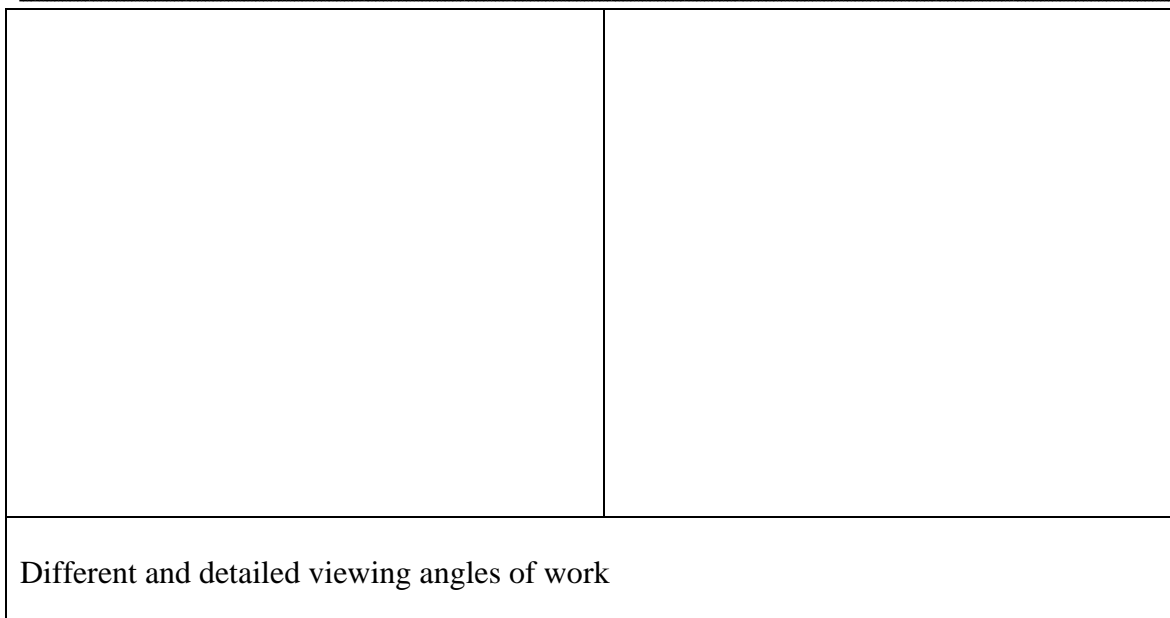
Business name: Stability

Workspace: 25cm×30cm×20cm

Materials: Soap Stone

Applied Performance: Live Sculpting





Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

The abstract composition presents a holistic view of a bird and by contemplating this work we can see from the simulation of nature a clear return in both the bird's head and the outer line of the mass, which expresses the proportions of the bird's sizes in nature, but some may think that there is a paradox feature between the researcher's keenness to highlight the details of the head and between the summary and summarization of the rest of the body.

The ancient Egyptian example used to link the realism of things with other goals such as simplification and exaggeration to modify nature, and this is what makes us note the ability of this work to express the characteristics of the quality of the bird, in a sculptural language that harmonizes between organic manifestations

(For the bird) and the characteristics of the type of material, we find a degree of awareness of the nature of the material refers to the inability of talc to break into severe and exposed during the carving process to smash or break, where the researcher was able to this composition to save the work agglomerate with reference to the details of the parties not exceeding the limits of the outer line of work, including the return to enrich the aesthetics of the rhythm of the composition in the void, and this is what makes us sense the meanings of glory and vigilance despite the anchor of the bird and its stability on a large area of the base and illustrates the light and shadow The reality on the surface is the diversity of smooth transitions between surfaces, with the researcher relying on the refinement of the work to clarify with him the vocabulary of the formation used and the role of the material and its impact on the form of the sculptural work. Although this composition is one of the open configurations where there is an interaction between the repetition of the blocks and the angles of their inclination

with some interspersed spaces of the design, this gives the work a sense of arrangement and diversity and then a sense of hidden movement within the work as a result of calculating the plastic relationships between them.

Foundations of analysis:

Seventh work (stability):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the presence of different types of space such as recessed cavities and vacuum Piercing and void surrounding the composition.
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 8 cm in the form of a cuboid.
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 1000 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a cream-colored soap stone with veins Gray and confirmed with a transparent glass coating.

Eighth action:



Figure (15)

Business Name: Al Raha

Workspace: 25cm×40cm×30cm

Materials: Talcum

Applied Performance: Direct Sculpting





Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

Abstract composition presents a holistic view of abstraction with free rhythm in a vertical position. The sculptural formation came composed of a mass expressing a stereoscopic that carries a kind of rhythm that is not subject to a specific law in the order of its vocabulary, and its elements, but there is complete freedom in dealing with its vocabulary, whether it is unity or geometric distances, linear or organic, as it was formulated through plastic bodies through which the free rhythm was achieved, so we find a focus on organic metaphors, and then summarized into geometric abstract forms, which may have Expressive or symbolic connotations according to the vision of the researcher, where the work on a reductionist system with structural combinations with the intention of modifying and moving away from reality, we see the simplistic situation dominating the entire work, and in the analytical study of the lines, the line rushes in the composition refractively in some places, and a curve in others, and meets important points and angles in the work that make a state of stability and stillness, and the movement of the composition is generated from the movement of its basic elements, such as converging lines that create a kind of rhythm and balance commensurate with the structural unit, and The mass by space, where the parts of the work are interconnected to each other to form a single whole, and it was based on a special system of plastic relations perceived through unity, which we find in the details of the work.

The researcher has achieved a simple trend in putting forward new formative formulations according to his own vision, and the simplicity of the material he adopted, and the work surfaces have been

implemented in a polishing manner, where the composition gave a proportional entity with the material implemented by it, as for the shadow and light, they were distributed with different and graded repetitions and degrees for the work surfaces, which came in most places convex and spherical, where the light is received gradually. Thus, the geometric shape has been embodied within the organic modifications through the processes of reduction, and the return of the shape to the simplest form, where the geometric structure of the composition is emphasized and the shape is subjected to the process of reduction and abstraction, and away from physical realistic simulation, and diagnosis through organic modifications based on geometric systems, which relied on the visual balance of plastic relations, leading to the ideal qualities of the essential form, which achieved absolute aesthetic values of an abstract total nature.

Foundations of analysis:

Eighth action (rest):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the absence of different types of vacuum such as recessed cavities and vacuum Piercing
Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a square .

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Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	Evidenced by the natural influences of a translucent white talc with veins Gray and confirmed with a transparent glass coating.

Ninth action:



Figure (16)

Business Name: Stillness

Working area: 20 cm × 35 cm × 25 cm

Materials : Talcum stone

Applied Performance: Direct Sculpture





Different and detailed viewing angles of work

Forming Method:

The researcher used the method of direct formation using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the surfaces of the stone.

Technical analysis of the work:

The abstract composition presents a holistic view of a human being whose features become clear with the approach of the mass body in his description of the body body, and this seems strongly suggestive in the parts that refer to the head and body details, so we find a sculptural composition composed of a structural block overlapping in space, and includes various modifications that appear as organic abstract forms, the composition has undergone coherent structural foundations, where the shape appears as if it resembles a human, which made the composition characterized by summarization, simplification and compatibility between the work body and its elements, representing the composition in terms of The structure is a rectangular shape, the smaller side of the working head, and the law of logical balance between mass and space has been achieved in the work, and what enriched the composition is the kinetic state through the confluence of lines and surfaces with each other, and their

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transfer from mass to space, and in the linear study of the types of lines and their path in the composition, the curved line is shown horizontally and vertically, and the curve distributed in the suggestive bends of the body, and arched lines at the middle of the formation The surfaces have been carried out convex in most places, the work surfaces have been carried out with a soft texture, As for the places of shadow and light, the smooth surfaces helped to distribute the shadows gradually in some places, and were explicitly defined.

The specific lines of the composition body are characterized by softness and persistence, including the consequent smooth transition between surfaces in a quiet, and we note in the composition the rhythm of the blocks and their distribution in a balanced aesthetic format, and the researcher has tried to achieve a comprehensive view that combines the vocabulary of work in a unified rhythm.

Foundations of analysis:

Ninth Action (Stillness):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the absence of different types of vacuum such as recessed cavities and vacuum Piercing.

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Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a rectangular parallelogram
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	Evidenced by the natural influences of a translucent white talc with veins Gray and confirmed with a transparent glass coating.

Tenth Action:



Figure (17)

Work Name : Bird

Working area: 20 cm × 35 cm × 25 cm

Materials: Snakestone

Applied Performance: Direct Sculpture





Different and detailed viewing angles of work

Forming Method:

The researcher used the direct forming method using the recognized tools (air hammer - rocket - other tools), and he also used heat treatments to increase the hardness of the stone and to show some natural effects on the stone surfaces.

Technical analysis of the work:

This work presents an abstract plastic vision of the bird, and approaches the body of formation in its description of the bird's body in nature, and this seems strongly suggestive in the parts that refer to the formal features of the single (head, body and tail with the reduction and simplification of the wings), and the head is heading in its gaze towards the front, and the chest is prominent heading forward in strength and pride, and the wings are integrated with the body. The researcher deliberately paid attention to the plastic relations in the composition between the surfaces and blocks together, and the consequent sentence Visual abstract formation of the bird, and clear abstract treatments starting from the mass of the head and the reduction of all its details except for the pointed protrusion in the middle in order to indicate the beak of the bird and the direction of movement of the head, and the mass of the head occur chanting with the extension of the tail.

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The researcher has merged the wings with the mass of the body, which resulted in the widening of the areas of surfaces that he treated by entering and the surface concave somewhat in the wing area to determine the shadows of the boundaries between the body and the wing and the rhythm of the shadow and light varies within the block, the researcher has deliberately made the work block coherent in one entity by integrating the elements and their connection did not address the details as much as it was content to refer to the bird through the movement of surfaces and the formation of its external lines approximately between the work block and the form of The bird, and tried to take advantage of its use of the soft line element and the calls for plastic and expressive powers and highlight the aesthetic values.

Foundations of analysis:

Action X (bird):

The plastic components on which the exhibition's work was based	Criteria for judging the verification of the plastic component
Square body composition	It is indicated by the external body of the sculptural mass.
Open configuration	It is indicated by the absence of different types of vacuum such as recessed cavities and vacuum Piercing.

Combining geometric and organic	It is indicated by the use of geometric and organic volumes in composition and how to combine them.
Three-dimensional modulation	It is indicated by the relationship of mass to the space around it.
Base shape	The height of the base fits the base space with the configuration
Vertical span of the composition	It is indicated by the morphological features of the base with a height of 15 cm in the form of a rectangular parallelogram.
Heat treatments	It is indicated by the increase in the hardness of the stone after exposure to 900 degrees Celsius inside the furnaces Electric Fire
Color	It is indicated by the natural effects of a dark green snakestone with a dark green color Brown and yellow veins and confirmed with a transparent glass coating.

Eleventh Action:



Figure (18)

Business Name: Waiting

Workspace: 25cm×40cm×20cm

Materials: Talcum

Applied Performance: Direct Sculpting



Different and detailed viewing angles of work

Twelfth Action:



Figure (19)

Business Name: Intilaq

Workspace: 20cm × 38cm × 10cm

Material: Snakestone

Applied Performance: Direct Sculpture



Different and detailed viewing angles of work

Thirteenth Action:



Figure (20)

Business name: Fission

Workspace: 15cm×36cm×20cm

Materials: Talcum

Applied Performance: Direct Sculpting



Different and detailed viewing angles of work

Results:

1. Some experimental entrances were found by making use of talcum ore.
2. Talcum stone material is cheap and available in Egypt and can be used optimally in the field of sculpture.
3. It was concluded that the material is a medium, a means and a tool to emphasize the conceptual and structural dimension of the work.
4. Talc stone is easy to shape and can be a medium for experiments with various coatings or be an integrated work.
5. Technology contributed to the use of high-precision means in technology, helping to speed performance and reduce effort, which led to the production of artworks in the material of stones away from the traditional and stereotypical forms in dealing with this material.

Recommendations

6. Urging researchers to study materials, heritage and ancient civilizations and benefit from them in the development of sculpture.
7. The researcher recommends searching for modern inputs and data and how to benefit from them in the field of abstract sculpture.
8. Putting talcum stone material in theoretical curricula as well as practical curricula in sculpture to introduce students to its aesthetic and plastic characteristics and components.
9. Attention to carving on the material of stones by specialized technical colleges in a way that deepens the awareness of students of the impact of the difference in the material of stones and the multiplicity of their types, and the relationship to form and content.
10. Establishing and providing work sites and workshops for Egyptian sculptors next to mines and the most important quarries.
11. Interest in studying abstraction in sculpture in terms of its mechanisms, techniques and topics, activating and applying them practically.
12. The importance of theoretical studies of stone material through access to geology and the awareness and awareness it provides of the nature of the structure of each type separately and its constituent minerals and benefit from the description of the texture of stones and employ all the possibilities of the material to serve the sculptural work.

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