Design and production ceramic jewelry using the chromatic and formal effect of fruits, seeds and their chemical composition

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Abstract:

Ceramic jewelry are distinguished from other types of jewelry with their attractiveness and variety of methods of production and decoration, in addition to its economic value, one way to leave a chromatic and formal effect on the surface of ceramic jewelry is to add organic matter, many fruits and seeds can be used to add this aesthetic effect, the resulting color varies on the surface of the ceramic jewelry depending on the chemical composition of seeds or fruits used because when you add them to the piece of jewelry and burn, it left empty place and formations are produced on the piece surface after jewelry burning, a chromatic effect is caused by the reduction of organic matter, this varies effect depending on the type of seeds and fruits, which leads to the benefit of design in the formation and production of jewelry in an economic way.

Key words:

Chemical composition of some fruits and seeds- Ceramic jewelry- Chromatic and morphological effects.

Research problem:

How to take advantage of the chromatic, formal and chemical composition of seeds and fruits in the decoration of ceramic jewelry.

Research Objectives:

The objective of the research is to design innovative and high-quality ceramic jewelry by taking advantage of the chromatic and formal effects resulting from the use of plant seeds and fruits to achieve aesthetic and economic value .

Research hypotheses:

- The use of plant fruits and seeds in the design of ceramic jewelry leads to color and form effects of aesthetic value.
- The use of plant fruits and seeds in the design and production of ceramic jewelry leads to suitable Jewelry for modern times.

Research Methodology:

The research follows the experimental analytical method through the following points:

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1- Explain the approximate proportions of the mineral elements of some fruits and seeds of plants which have a formal or chromatic effect or both on ceramic jewelry.
2- Some practical experiments to clarify the results of the form and color resulting from the use of seeds and fruits of expired plants on the ceramic jewelry after the first fire without Glaze.
3- Some suggestions for design concepts to add the idea of using plant seeds and fruits on the surface of modern ceramic jewelry.

First: Some types of seeds and fruits with chromatic and formal effect on ceramic jewelry without glaze.

1- Lentils- Lens exculenta

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown due to the iron element in the seed structure.

2-White beans- Phaseolus vulgaris

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown and light green black due to the iron and copper elements in the seed structure.

3- Sesame -Sesamum indicum

Fire temperature 950 ° C- Appearance of seed form
No color appears due to the absence of color elements in its chemical composition.

4-Seeds of melon- Citrullus lanatus

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown and light green black due to the iron and copper elements in the seed structure.

5-Trigonella- Trigonella foenum-graecum

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown due to the iron element in the seed structure.

6- Almonds- Prunus dulcis

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown, black and light green due to the iron, manganese and copper elements in the seed structure

7- Lupinus -Lupinus angustifolius

Fire temperature 950 ° C- Appearance of seed form
The color is reddish brown, black and light green due to the iron, manganese and copper elements in the seed structure

- **Some design proposals for using plant seeds and fruits on the surface of ceramic jewelry:**

Proposal (1)

Imagine a proposal to design a piece of ceramic jewelry by adding the sesame seeds in a non-glazed part.

Proposal (2)

Imagine a proposal to design a piece of ceramic jewelry by adding lentils in its formation and using white clay not coated with glaze.

Proposal (3)

Imagine a proposal to design a piece of ceramic jewelry by adding the melon seeds to a piece of ceramic piece- white clay not coated with glaze.

Proposal (4)

Imagine a proposal to design a piece of ceramic jewelry by adding almonds to a piece of ceramic jewelry coated with shiny green glaze.

Research results:

- The possibility of creating jobs and establishing small industries for the design and production of ceramic jewelry, taking advantage of the chromatic and formal effect resulting from the use of plant seeds and fruits.
- Using the chromatic and formal effect of plant seeds and fruits in the design and production of jewelry provides a unique opportunity to innovate and achieve design and economic values to come out with a new product.