

## Simulation of Islamic Ceramics Using Different Firing Techniques

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### Research Summary:

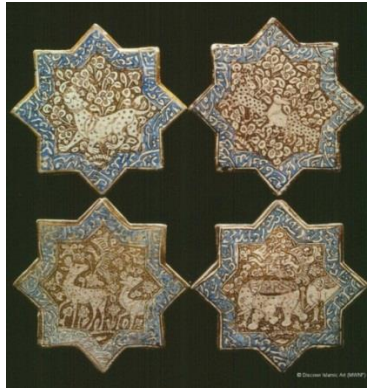
Ceramics is one of the most important artistic handicrafts that were known for Arab Artists since the appearance of Islam. The main reason of this was the role that ceramics played in fulfilling the idea of Islamic civilization on different sides. One of the most important reasons that helped in demonstrating Islamic ceramics was the fact that the main idea of Islam is to be humble, forgiving and unsophisticated, all of this contradicted previous lives of Arabs which were full of entertainment and luxury, and expensive materials in daily life like gold and silver. For that reason, ceramic art was so popular for Arab Artists who were able to achieve marvelous results using new techniques on all levels.

On the other hand, there were different methods of production in addition to different kinds of techniques used in decorating all kinds of ceramic pieces, as they used the technique of painting on the pieces using oxides and stains mixed with water then covering it with transparent glaze “Under-glaze”. They also used another technique for decorating, colors made of gold to paint on fired glaze “Over-glaze”. Besides that, decorating techniques used to give different layers of clay such as “Curving”, “Agateware” and “Piercing”. And what was so obvious was the fact that the artisans who applied all these ceramic pieces were professional artists who used to work in ceramic centers, and that because of their high skills and abilities in applying these paintings and decorations on different vessels using brushes shows how confident they were, in addition to how they made these pieces look simple and abstract using different decorating units, and that what can also be realized in other different Islamic arts like “Textiles, metal and wood work, etc.”



(1) One of the vessels decorated with Arabic calligraphy  
Using on-glaze technique, Ottoman Age

Alternatively, Islamic ceramics fulfilled different other sides of people's daily needs either private or public, as Islamic Ceramists made tiles in different shapes, in order to use them in covering walls, in addition to cups, plates, bowls, vases, jugs, water bottles, and other vessels for different uses. What was so obvious was that Islamic ceramics manufacturing was developed and has significantly improved since Islam entered new regions and countries, having very good reputation in making ceramics such as in Iran, Iraq, Egypt and El-Sham countries.



**(2) Octagonal tile with decorations of plants and animals  
13-14 Century, National Museum for Oriental Arts, Rome**

What was so obvious that a lot of Islamic Ceramists were inspired by the techniques and decorations used in making Chinese ceramics, as there was a very good relation and trade between both empires. During the 9<sup>th</sup> Century (A.B), there was a rise in the manufacturing of ceramics, as during the rule of the Tang family in China, Abbasid Caliphs in Islamic countries imported a lot of ceramic antique pieces from China, and so Islamic Ceramists imitated them perfectly, that it was sometimes difficult to differentiate between the original piece and the copies. But what was so known to be original for Muslim Artists was their creation of ceramic vessels with the finish of metallic colors “Luster glaze”, as it was a replacement for gold and silver plates and cups, which Islam has forbidden using them in daily life. This kind of ceramic technique spread so quickly to other Islamic regions, especially in Egypt, as a huge number of its kind was found in El-Fostat in Old Cairo, and it was known to be made during The Fatimid age. They were decorated using geometrical shapes mixed with calligraphy and different lines, in addition to paintings from Egyptian pop life. Furthermore, in Garos and Khorasan in Iran, ceramists were known for their high skills in making luster ceramics, which were famous with different decorations which express Persian and Islamic civilizations mixed together. Calligraphy and other decorations such as animals, plants and humans were also used.

On the other hand, there were many methods of producing ceramics and decorating as well, in addition to the huge variety of ceramic pieces from different Islamic ages, especially The Fatimid and The Abbasid ages.

For that, the idea of this research came out to light, trying to get some benefits of Islamic ceramics, by trying to use some of popular ceramic shapes and having new contemporaneous solutions to treat its outer surface, like using “Luster Glazes Reduction” which was one of the most important ceramics innovations of all times, and has been used by a lot of ceramists all over the world until the time being for its unique and magical results which gives the outer surface of ceramics the effect of expensive metals, like gold, silver and copper.

### The Steps followed to apply the practical experiments:

- 1- The Researcher has chosen 4 different shapes from the known Islamic Ceramics heritage to apply his practical experiments.
- 2- Sketches were drawn to check the availability of applying the new colors and decorations on the chosen shapes.
- 3- The 4 shapes were thrown on pottery wheel using approximate real measurements between 20cm-35cm wide and 17cm-45cm high.
- 4- After that, clay decorations were added to each piece and textures as well.
- 5- When the pieces were totally dry, they were fired in an electrical kiln at 950°C as a first firing.
- 6- The pieces were colored after that using glazes prepared specially to get these artistic metallic results.
- 7- Another fire at same temperature degree was needed to melt the glazes and end the pieces up with a magnificent variety of metallic colors "luster effect".

### The Final Results of the Four Experiments:



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## Research Background

Islamic ceramics has a very important role in the continuation of ceramic products development in Egypt and all other Arab and Islamic countries. Furthermore, all techniques and methods of productions used are now very known and used in countries producing ceramics all over the world. Here, the Researcher starts making different experiments as a simulation for Islamic ceramics, in order to know more about some of the techniques used during Islamic old ages through applying them on different shapes inspired from Islamic ceramics, using contemporary finish to apply it on the outer surface.

## Keywords:

Islamic Ceramics through different Ages, The development of Islamic Ceramics outer surface, Luster glaze reduction.

## Research Problem

**We can find the research problem through the following questions:**

- 1- Is it easy to simulate shapes from Islamic ceramics in a result that combines between the original identity of the shape and treating its outer surface in a contemporary way?
- 2- What are the techniques to be used in order to end up with a contemporary ceramic piece with an Islamic identity?

## Research Goals

- 1- Renovation of Islamic heritage.
- 2- Trying to simulate Islamic heritage in a contemporary result.

3- Getting to know some of the techniques used in the production of Islamic ceramics through applying it.

### **Importance of Research**

- 1- Using old techniques of making Islamic ceramics in order to make ceramic product with aesthetic specifications.
- 2- Achieving a study that helps in renovating Islamic ceramics with a contemporary finish.

### **Research Methods**

- 1- The use of Analytic method to study old Islamic ceramics.
- 2- The use of Experimental method to apply some of Islamic ceramics techniques.
- 3- Visiting different art and ceramics museums.
- 4- The use of Analytic method to make a study of one of the Ceramists in Egypt who is inspired by Islamic Art in his work.

### **Research Results**

- 1- Islamic Ceramic has left us with a huge inheritance full of different results and information, which could be used in renovating this kind of art in different ways, as there is a huge number of Islamic ceramic pieces in museums, either in Egypt or abroad. Also that a huge percentage of those pieces are identified to their function, the place and year of manufacture, etc.
- 2- Islamic Ceramic has left us with many different techniques used in producing and decorating ceramics, that could be developed in order to reach new results, such as Reduction, On-glaze, Under-glaze, etc. and all of them give different results.
- 3- Islamic Ceramics has left us with a huge number of ceramic shapes with different uses, which make it easy to find shapes with special identities, such as plates, bowls, vessels, tiles, vases, and lanterns.

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### **Places Used for Practical Experiments:**

- 1- Artist Samir El Gindy Ceramics Studio.
- 2- Artist Diaa El Din Dauod Ceramics Studio.
- 3- Artist Haitham Hedaya Ceramics Studio.