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# Copper Enamel Arts and Crafts - Alibaug, Maharashtra

An ancient technique of copper embellishment by Sanmati Hosure IDC, IIT Bombay

#### Source:

- 1. Introduction
- 2. Artist
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### Introduction

Copper enamelling is a centuries-old craft. It has journeyed many generations. The traditional old age art has roots in Varanasi first planted by Persian enamellists as early as the 17th century. It is a process in which powdered glass is fused to a metal surface by using high heat. Usually, metals like gold, silver and copper are used for enamelling. The metal articles or jewellery are embellished with colourful enamelling. The powdered glass can be applied either wet or dry to a surface. The colourful glass powder is laid onto the copper surface according to the pattern or design and it is put on a high heat to melt the powdered glass. This process results in a coat which is formed on the copper surface. The end result not only lends its vibrant colours to the copper surface but also prevents it from oxidizing. This makes articles more attractive and useful too.

It is the hard work of artisans that makes the art come up to the mark. There is a cluster called 'Copper Enamel Arts and Crafts' where a few artisans are working. The cluster is highly professional in manufacturing beautiful copper enamel artefacts. It is based in a small village known as Bhaimala near Alibag, Raigad district of Maharashtra. Mr Sanjay Patil is the owner of this unit. He, his son Vikrant and his daughter Rutuja are also helping him in this art. Around ten artisans are working in shifts here.

The 'Copper Enamel Arts and Crafts' cluster not only produces artifacts but also conducts training sessions and workshops for art lovers. To create awareness about the copper enamel art they promote themselves through various social media platforms. Mr Sanjay has 40 years of experience in copper enamelling art and is recognised by the Government of India. The 12ft by 11ft installation of the Indian Map was brought to life through the copper enamel art which is displayed in the Sardar Vallabhai Patel Museum inside the Statue of Unity Memorial Entrance, Gujarat.





A bowl. A pen holder.

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Cooper enamelling elephant frame.

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Cooper enamelling Ganesh frame.



Cooper enamelling sun frame.

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A wall hanging of Ganesha.



Products at display.

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Copper Enamelling Workshop.

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### **Artist**

The 'Copper Enamel Arts and Crafts' cluster's workshop is located in Bhaimala, which is in the Raigad district close to Alibaug, Maharashtra. Master craftsman Mr Sanjay Patil has been running his copper enamel workshop since 1986. Mr Sanjay learnt the copper enamelling art from Mr Babu Mhatre and worked with him for 11 years. In the late 50s, Mr Babu happened to travel to Spain and learnt the craft. Then he decided to explore different methods to work on this craft in India. During 1959-1960, he worked with Bhulabhai Memorial Institute on Warden Road in Mumbai. Slowly he became popular for copper enamel art and started doing a lot of commission work. He started a small set-up in Alibaug. He trained the locals in this craft for making lifestyle accessory products. Some locals became experts and branched out on their own to work independently.

Mr Sanjay Patil is one of the master craftsmen who runs a workshop, 'Copper Enamel Arts and Crafts'. His family members and ten other craftsmen are trained under him. His son Vikrant graduated from the Science stream. Since childhood, he has been watching his father's expert work and decided to carry forward his father's legacy. He has been very active and striving for this art's popularity. The cluster is full of different types of products.



Inside view of workshop.



Inside view of workshop.

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Artist Milind busy with his work.

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Mr Sanjay's son Vikrant, himself, daughter Rutuja with Team with artists. artisans Milind and Sahil.









Workshop.

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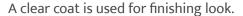
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### **Tools and Raw Materials**

The tools and raw materials that are used for making copper enamelling art are as follows:

- Copper Sheet: It is the base material on which enamel art is done.
- Flux Powder: Clear flux powder is used to put on copper surface which acts as a base coat for enamelling.
- Glass Stone: It is ground to make glass colour powder.
- Glass Stone Powder: It is used for colourful enamelling.
- Gas Stove: It is used to heat the coloured copper surface.
- Paintbrushes: Different types of paintbrushes are used for painting.
- Stencil: It is used as a design reference for cutting copper wire.
- Copper Sheet Cutting Machine: It is used to cut the copper sheet into the required shape.







Brush, cotton cloth and colours.

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Buffing machine.



Clear flux powder used as a base coat.



Compass and other cutting tools.



Copper Sheet.

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Copper sheet cutting machine.



Copper stencils.



Copper wire.



Copper wires cut into different shapes.

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Different types of paintbrushes are used for painting.



Drill machine.



Enamel powder colours.



Everything kept ready on the table for painting.

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Gas stove.



Kandap machine or Pounding machine is used to make colour powder from glass stone.



Hammer and other shaping tools.



Smoothening machine.

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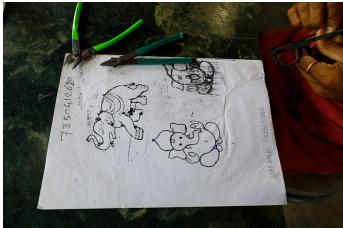
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Stencil is used as a reference for cutting copper wire.



Sulfuric acid solution.



The glass stone and its powder form.



The glass stone is grinded to make colour powder.

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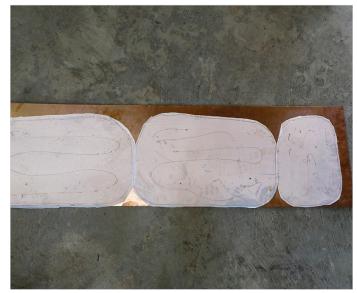
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## **Making Process**

The copper enamelling process starts with the cutting of copper sheets. The required design is printed and pasted on the copper sheet. A flat copper sheet is cut using a copper cutting machine. Then it is given a proper curve or shape by beating with a hammer. In this process, a round-shaped sheet is used. Then a clear flux powder is put into the copper sheet. This powder works as a base coat. A thin copper wire is used to make design patterns. The wire is bent and cut using scissors. The cut pieces of copper wires are put together on the flux-applied copper surface as per the design. The sides are cleaned using a brush. Now this plate is put on a gas stove for heating. The process of heating helps flux powder to melt and fix the copper wire pieces on the surface. Here the melted flux powder acts as a base coat. The heated plate is allowed to cool for some time. After cooling it is dipped into the sulphuric acid solution. The art piece is cleaned using a buffing machine. Now comes the colouring part.

The colour glass powder is made by crushing colour glass stones using a Kandap machine. The glass powder is mixed with water to make it wet. This wet glass powder is now put on the design by using a brush. Bright and eye-catching colours are used for painting. Once the painting is done excess water on the surface is tipped using a cotton cloth. The cotton cloth soaks an excess amount of water from the design. The art piece is heated once again. Now heating will help to enhance and fix the colours. After cooling, the art piece is dipped into the sulphuric acid solution. This process removes impurities that occur from the heating process. It is buffed one more time. And here is the final product.







Copper sheet is cut as per requirement.

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Cut copper shapes are used as a base.



Properly shaped copper plate.



Clear flux powder is put on the surface as a base coat.



Artist applying clear flux powder.

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All set for further processing.



Artist removing excess powder from sides.



Copper wire is shaped as per design and cut using cutter.



Copper wires cut into different shapes.

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Artist putting copper wire shape according to the design.



He carefully put all copper wire pieces.



A complete Ganesh image.



The plate is put on fire for fixing the copper wires.

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The heated plate is kept for cooling.



A tray and sulfuric acid solution.



The plate is dipped into sulfuric solution.



The plate is kept in the solution for a while.

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Set-up for the next process.



Artist applying colour.



Rutuja busy in her painting job.



White colour is applying to the leg.

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Excess water from colour is tipped using cotton cloth.



A single layer of navy blue colour is applied.



A sky blue colour is applied along with navy blue colour. Painting process done.



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Rutuja showing her finished painting.



Once again the plate is heated on gas stove to fix the colours.



One can see how the colour is changing while heating.



It is kept to cool for some time.

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One more time the plate is dipped in sulfuric solution.



Sahil buffing the plate to clean it.



A completed plate.



Copper enamel painting of Ganesha.

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### **Products**

India is rich in traditional handicrafts. Many artisans carry their art legacy for generations. Every state has its own handicrafts in India. Copper enamelling art is a unique one. Simple copper products are decorated with attractive colours that in the end enhance the look of the final product. It took countless efforts for the artisan to complete one artefact.

Handicrafts require a lot of patience and hard work. Due to a lack of awareness of creative arts among people handicraft industry is not very popular. Therefore artisans are not getting proper attention to their creativity. Every artisan wishes to come under the limelight for his art. Junior artist Vikrant appeals to all viewers to come forward and admire the handicraft industry.

'Copper Enamel Arts and Crafts' started in the year of 1986 as a small cluster. Now it has become a well-known centre for interior designers and art lovers. Mr Sanjay produces traditional as well as contemporary artefacts. He also takes orders from design firms. Tableware, wall decors, wall hangings, key holders, flower vases, pen stands, tea coasters and many other products are produced by this workshop.







A wall hanging.

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A plate with Lord Ganesha.

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Beautiful copper enamel plate.



Bowl and plate.



Bowl and plate.



Brush holder.

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Candle holders.



Copper enamel bird.



Copper enamel plates.

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Copper enamel plates.



Copper enamel plates.



Copper enamel plate with flower motif.



Different types of plates and bowls.

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Ganesh wall hanging.



Haldi-kumkum holder.



Tea Light Holder.



Fruit Bowl and Astray.

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Incense stick holder.



Key holders.



Tray.



Candle holder and diyas.

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Copper enamel plates.



Flower vase.



Key holders.



Plate and bowl.

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Plates displayed on the wall of workshop.



Tea coasters.



Tissue paper holder.



Various products displayed on the table.

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Wall decorative piece.



Wall hangings.

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### Video



Copper Enamel Arts and Crafts - Alibaug, Maharashtra



Copper Enamel Arts and Crafts - Making Process

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### **Contact Details**

This documentation and content was done by Sanmati Hosure at IDC, IIT Bombay.

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You can write to the following address regarding suggestions and clarifications:

### **Key Contact:**

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