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Design Resource **Fiber Casting Statue - Ahmednagar** Sculpture Making

Sculpture Making by Prof. Bibhudutta Baral and Srikanth B. NID Campus, Bengaluru

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Introduction

Sculptures have evolved into an important art form across all cultures since prehistoric days. In the ancient days, the remains of its existence still make space in our museums, old palaces, and parks in the form of idols, fountains, and statues. Statuary, a hand modeling method enjoys a significant role in the world of sculpting. Casting statues with fiberglass resin is a new entrant in the category which is a durable synthetic polymer. These resin statues come with a number of benefits like sophisticated detailing, lightweight structures, and harsh climate resistance, along with the quality of mimicking the appearance of ancient stone, marble, bronze, or porcelain sculptures. It is a method where a liquid synthetic resin is poured into a mold to harden and give forms that make collectible toys, models, figures, as well as small-scale jewelry.

Ahmednagar, a state of Maharashtra was once a territory believed to be founded by Nizam Ahmed Shah. Ahmednagar with a rich history of more than five centuries traces its roots back to 1490 CE. The place situated in the west-central part of Maharashtra hosts four grand festivals like Ganesh Chaturthi, Tabut festival, Navratri, and Makar Sankranti, thus making it a cultural hub and a harvest land for skilled craftsmen and artisans.

Mr. Ganesh Ambadas Mudiganti, an Ahmednagar-based artisan who runs a sculpting workshop, has created fiber casting statues for 16 years. He, along with his team members, makes use of flexible rubber molds made from room temperature vulcanized (RTV) silicone rubber and a mixture of resin, chalk powder, and fiber liquid to produce these magnificent models, which are in great demand in the market.



A workplace where all the statues are made.

Interior of the workplace.

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Mr. Ganesh Ambadas Mudiganti, proprietor cum artisan of the workplace.



Mr. Ambads Narasaiah Mudiganti, father of Mahavidyalaya.



Mr. Ganesh Ambadas Mudiganti with his younger brother who is also an artisan.



Certificate presented to Mr. Ambadas Narasaiah Mudiganti by Rachna Kala for his contribution to clay sculpting.

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Tools and Raw Materials

The tools and raw materials that are used for Fiber Casting Statue are as follows:

- Clay: It is used for sculpting a statue as a base model.
- Spatula Set: It is the tool used to sculpt the clay model.
- Resin: It is the main raw material for fiber casting.
- Chalk Powder: It is mixed with resin.
- Fiber Liquid: It is mixed with resin and chalk powder for more durability of the structure.
- Paddle Mixer: It is used to blend resin, chalk powder, and fiber liquid into a proper mixture.
- Hardener: It is mixed with the resin mixture to turn the mold strong and tight.
- Container: It is used to store the blended mixture.
- Rubber Mold: The mixture of resin is poured into the mold and then placed into a container.
- Plaster of Paris Mold: It is used to cover the rubber mold for a tight grip.
- Acrylic Colors: It is used to paint the statue.
- Paintbrush: It is used to apply the acrylic colors over the object.
- Die Grinder: It is used to grind off unwanted parts on the fiber statue.
- Sandpaper: It is used to smoothen the outer surface of the statue.

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Clay used to make statues.



Chalk powder is used to make fiber mixture.



A mixture of chalk powder and resin, to make the fiber statue.



The sandpaper is used to smoothen the rough surface and remove excess pieces in the statue.

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Sculpting tools are used to sculpt the statues.



A paintbrush is used to paint the fiber statue.



A surgical blade is used to patch up the small pores or cracks in the statue.

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Peddle mixer, used for efficient and fast mixing.



Different forms of die grinders.



Plaster of Paris mold used to hold the fiber mixture while drying.

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Colourful paints are used to colour the figure.



A rubber mold is used to cast the fiber statue.



Colours, resin, hardener, and thinner placed on a shelf.

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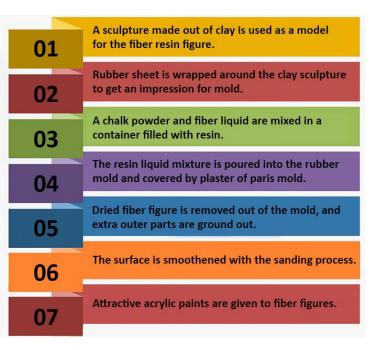
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Making Process

In the making process of fiber casting statues, the artisan starts with mixing clay powder with water in a container. Once the clay hardens to a consistency suitable for modeling, the artisan starts shaping the clay into an idol with hands, and details are given using a spatula set. Next, a rubber sheet is used to take the print of the sculpted statue from all its sides. This sheet is then converted into a rubber mold and placed carefully inside a solid plaster of paris mold. This step enables the fiber resin mix to be poured into the mold to take the printed rubber mold. For making this resin mixture, firstly the artisan mixes resin and chalk powder using a paddle mixer. Once blended to an appropriate density, fiber liquid is added to it. Shifting a small quantity of this into another container, the artisan adds hardener, which makes the casting tight and strong. The mixture of resin, chalk powder, and hardener is then poured into the rubber mold with POP mold supporting the outer part. After the mixture dries up, the external POP cover is opened and the rubber mold is removed to have a solid statue. Using a die grinder, the extra parts on this statue are ground, followed by resin and hardener mix application over holes and cracks that usually appear on a casted structure. After covering these areas, the artisan smoothens the surface with sandpaper. As a final step, this largely finished structure is then painted with selected acrylic colors to offer uniqueness and its share of attraction to lure customers.

Flowchart:



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Clay powder and water being mixed until the right con- Mixed clay ready for modeling. sistency is attained.



The right amount of water is added to the clay powder.



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Artist modeling the statue from base to head.



Detailing on the statue being done with hands.

The basic structure of the statue is done by the artist.



Liquid rubber poured on the clay model to take the impression.

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Chalk powder and resin mixed by a pedal mixer.



The mixture was added with a small quantity of hardener being poured into a smaller container.



The fiber mixture is poured into the rubber mold.

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The rubber mold is rotated, so the mixture covers all the areas inside the mold.



The rubber mold is supported with plaster of paris.



The remaining mixture is poured into the mold.



The mixture is made thicker by adding more chalk powder and filled in the base area to add strength.

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After the mixture dries, the plaster of paris is removed.



The rubber mold is removed, and the fiber statue is taken out.



By using a die grinder, the unwanted areas or layers on the statue are removed.

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The ground areas are mended with fiber mixture.



The mended areas are then smoothed with sandpaper.



As the last step, the finished figure is painted with bright, suitable colours.

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Products

Artisan Mr. Ganesh Ambadas Mudhiganti has been running his father's fiber casting business based in Ahmednagar for 15 years. With the strong support of his father and brother, he produces magnificent statues and supplies them across cities like Mumbai, Pune, and Aurangabad. The minimum size of the statues made here is 3 inches while the maximum goes up to 21/2 feet. The price of the statues ranges between INR 300 to INR 4000, varying according to the product size and embellishments.



A bright-colored Lord Shiva statue.

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Shri Shirdi Sai Baba is painted in subtle colors that are soothing to the viewer's eyes.



Radha Krishna statue symbolizing love and affection.



A magnificently finished Lord Ganesha statue.

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Fiber Casting Statue - Part 1



Fiber Casting Statue - Part 2

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This documentation was done by Prof. Bibhudutta Baral and Srikanth Bellamkonda at NID, Bengaluru.

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