

# PAPER MACHE : PRACTICING SUSTAINABILITY WITH INNOVATION

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## INTRODUCTION

Paper Mache is an age old craft which has been practiced in India since 14th Century. It is a unique craft which originated in Iran (Persia) and was introduced in India by the Mughals and has reserved its popularity till today. Paper Mache is still practised by lots of craftsmen all over India. This ancient art form is famous for its tangible surface and elaborate manufacturing techniques. Basically paper mache is the most simplistic and in true sense a sustainable art. The basic material required for the process is limited and the hands on skills for the finishing of the product to create artefacts and products is the soul . As paper is easily available in every household in the form of newspaper, old waste books and copies. However practicing sustainability is the need of this age which took centre stage in the fashion world. Many artists and designers amalgamating design with sustainability and innovating assorted products. The process and outcome products created in various states of India has their own uniqueness and identity. While Kashmir, Odisha and Madhya Pradesh are famous for the Paper Mache craft tradition. Kashmiri Paper Mache products engraved its recognition in India and also on international platform. One can witness various kinds of paintings in geometrical and floral patterns on different objects which is an exquisite delight for the eyes. The most prominent feature of Kashmiri Paper Mache is the finishing with lacquer which add lustre to the surface. In Odisha, Paper Mache Masks and figurines are inspired by the Pattachitra tradition.

## OBJECTIVE

The concept behind sustainability is to reuse, reproduce and recycle the resources in your immediate environment. Paper is commonly used and available in abundance. In Paper Mache technique's most prominent feature is mashed paper pulp and glue which is the prime ingredients and further experimenting by adding flour, colour, starch, cloths rags and husk by various artisans in different regions. Products made up of Paper Mache are vases, bowls, toys, figurines, trays, masks, jewellery boxes and many other small things. The utility and character of this medium is the lightness, unbreakability and long lastingness of artefacts. As paper is very light in nature, it's

easy to mould and to create an interesting form. Paper Mache is biodegradable and does not cause harm to the environment.

As working in the prime design institute, where everyday we are talking, discussing and presenting papers in seminars about sustainability. This thought haunted me continuously to incorporate sustainability in our day today life. The objective is to implement and imbibe this practice and to come up with a creative solution wherein true meaning we can proudly practice sustainability.

## **MATERIALS AND METHODS**

As we resourced in abundance from Mother Earth and witnessing the consequences in the form of global warming. Human mankind is now focusing on sustainability. The basic objective of sustainability is to reduce consumption of non renewable resources, minimise waste, eco friendly products and healthy environment. The whole process is slow and quite meditative. Generally paper are collected from various sources like home, offices and campus. The collected paper was then shredded into small pieces and soaked in water for few days so that paper turn into soft pulp. The pulp can further be mixed with a grinder to make the pulp more smooth like paste and then it becomes more easy to prepare dough out of it. Many experiments got failed as the outcome was not satisfactory. These are the following experiments:

- First experimented only with paper and glue to create small things. the outcome of the experiment was off white in colour and the surface was very coarse. Once dried, sandpaper was used to smoothen the surface. Gradually realising lack of colour in products. The idea is to add colour but it should not be any artificial colour but to give more natural and earthy look to it.
- Added flour (*Maida*) with paper pulp and glue which resulted in developing fungus on the surface. The whole idea behind this concept is not to waste any eatables and stick to only waste resources only. This idea also did not work out.
- Research and brainstorming started to find an element which should be natural and add new dimension to the composite. So, that *ONE* element is required which will act as a binder and simultaneously add value to it. Thought to add something which is similar to the soil. And found *Multani Mitti* is the best substitute which is also called fuller's earth. It's texture and colour both are natural and at the same time its very fine, smooth and silky in nature. The qualities of *Multani mitti* when mixed with pulp makes it more sublime, creamy and the texture that it originates helps the paper mache to mould in various forms. When mixed with paper pulp and adhesive it radiates golden colour with an earthy effect. In precise, it can be said that *Multani mitti* and glue gives the

pulp it's basic strength. When it mixed with paper pulp it works as a great binder.

- One more challenge was the composition of each ingredients to create the perfect dough. Many experiments has been failed as the proportion of material was not accurate. The quantity of *Multani Mitti*, Paper pulp and glue should be adequate enough otherwise it will form cracks on the surface once dry.

The mashed paper pulp has to be put in cotton cloth and squeezed gently to drain extra water. It's important to note that pulp should be adequately moist so that glue and *Multani Mitti* can absorb the moisture and goes well with all the ingredients.

### **PROPORTION OF THE MATERIAL**

To prepare Paper Mache dough following are the proportions

1. Squeezed paper pulp : One bowl (one kg)
2. *Multani Mitti* : Quarter bowl (275 gms)
3. Glue : Half bowl (half kg)

### **RESULTS**

The dough created with the mixture of paper pulp, Glue and *Multani Mitti* is quite soft and sticky. It takes few days ( 2/3 days) to dry as it depends upon the weather condition if it's summer, winter or rainy season. When it dries, the paper hardens and become more durable and difficult to break. But keep it away from moisture as it will deform from its original shape. The surface on which constructing wall plates also matters the most as it will be difficult to take out once dry otherwise it will stick to the surface and break while taking out. Selection of tools again is very important. Different kind of tools are required to flatten wall plates like spatula, knife, steel scales. But still the challenge was to make the top surface smooth so that it will be easy to draw and apply colours and does not require sandpaper to create smooth surface. Small size wall plates was created to understand the character i.e the final outcome as a product after drying. The top surface of the plate is uneven as seen in picture. Further smoothened with the help of sand paper. The size of these wall plates are 7"x7" inches. It's noticed that after using sandpaper on the surface, the fine fibres are visible on the surface.

The property of unbreakability makes these products exclusive and unique. Moreover, it's purely handcrafted and easy to maintain. Floral motifs painted on plates is like celebrating the beauty of nature.



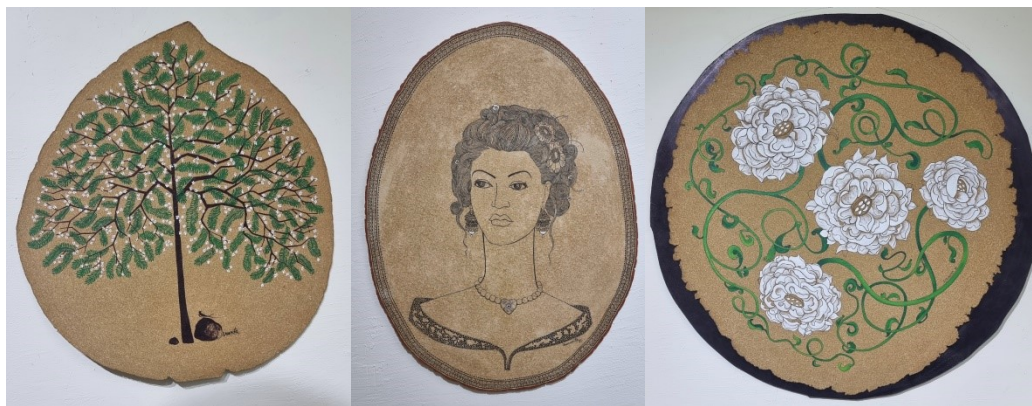
Wall plates

The result may vary when change the proportion of material. The interesting part is the thickness of these wall plates. We can play with the thickness of the plates according to the size required. Wall plates should be thick for big sizes and could be thin for smaller plates accordingly



Papier- Mache Pots

There is really no end to the experimentation rather it's exciting to adapt new challenges with new issues and come up with the creative solution. As wall plates are two dimensional, thought to create three dimensional products. Paper Mache composite is malleable and require moulds or structures . One more element which is also very easily available in your surroundings are waste plastic water bottles. Thought to incorporate these to build one of its kind. The neck part of bottle is removed and outside of the bottle, thick layer of paper mache pulp used to catch the shape of a bottle. Once it dry, plastic bottle can be cut out and finally got the structure of the bottle as a pot. As the plastic bottle was transparent ,one can see the paper mache effect from both inside as well as outside. It can be utilised as a pot, filled with soil and plant or can be filled with water and a plant. So basically three stages to reach to the end products i.e preparing dough, giving shape of a structure, painting with colours and finally could add plants.



Tree of Life

Unnerving Lady

Blossom White

## PAPER MACHE MURALS

Paper mache technique has great potential and can be explored in various forms . Here in, one can see the different forms of wall murals in oval, organic and circular shapes. All these shapes derived free hand. Acrylic colours is used for painting the wall plates murals. The marbled texture of the surface of all the wall plates is unique as well. The wall plate titled 'Tree of Life' composed in an organic form, celebrating grow green and one with the nature. The portrait titled 'Unnerving Lady' on the paper Mache plate is giving a very vintage look which finished with black pen. As the surface of these wall plates are very coarse, not smooth like a paper, the tip of the pen looses its fineness. The circular shape wall mural titled ' Blossom White' depicting purity and beauty in nature. The uneven cracks of edges adding charm to the entire composition. These wall plates are unique in its own kind, comprise combination of an artwork, handicraft, painting, mural and a palate. The entire essence of these wall

plates murals are in its marble texture surface which is the strength as well as uniqueness of these palates. In some others paper mache works, observed that the entire surface is painted with colours so it's difficult to imagine the material in which it is made up of. So intentionally, more importance is given to the surface, not to disturb the radiant golden background which enhancing its beauty all the more.

## PAPER MACHE SCULPTURES

Structure is the foundation engineering to build a three dimensional form. As paper mache composite itself is very delicate and doughy which cannot stand without a foundation structure. Again waste bamboo stripes used to create a bowl and further simple wires are used to fill the extra

gap in between. Still the structure is not ready to add paper mache composite directly because this structure cannot sustain the material. That's why, the entire structure is covered with tissue paper layering soaked in an adhesive which is helpful to bind the paper mache composite.



Once the layering of tissue paper is dry, now the structure is ready to add paper mache composite. The layering of paper mache dough cannot be start from the outer surface as it should be covered from both inside out to give a finished product look. So, start layering from inside first and leave it to dry completely which will take another few days. After that, finish the outer layer of the surface. The sculpture titles 'Fairy' has wings, wearing an embellished gown who is coming directly from heaven to grace its presence. The other sculpture 'Embraced with Nature' in which the gown is embellished with flora and fauna and the girl become one with nature. A little candle can be lit under both the sculptures. The purpose of holes in the structures is to illuminate light which will enhance both the utility and beauty.



## CONCLUSION

These paper mache products are the result of experiments done from past four and a half years and successfully exhibited, appreciated and purchased by the connoisseurs, artists and designers. The entire process is time consuming, lengthy and needs patience as every step needs to follow certain procedures. It's difficult for one person to enhance the mass production. It will be a great help to the society to conduct workshops for artisans or craftsmen and teach them basic nuances of paper mache craft to create products for daily usage. It can be a good source of earning by selling the products as it consumes less resources that are easily available. This journey is just a beginning and hoping soon will achieve recognition on many platforms.

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