Papier mâche techniques

by Denise Sutherland

Papier mâché is a French word for "mashed paper". It has been around for quite some time, it was even used to make houses in the 1850s. When papier mâché dries it is basically wood, and very strong and light. It is very popular as an inexpensive and versatile art medium. It's great for everything from jewellery, boxes, bowls, and trays to tables, sculpture, masks, and theatrical props.

Layered papier mâché

Layering is the most common sort of papier mâché, where strips are soaked in glue and added to a mould layer by layer.

Paste
I like to use the powdered paste "Polypaper Paste for light wallpaper, hobbies and crafts". A little goes a long way. You can find this paste at hardware shops around Australia (not sure about internationally). Make sure that you don't get normal wallpaper paste as it usually has fungicides in it, which will do interestingly painful things to your skin.

To make the paste stronger, you can add some PVA glue (like Aquadhere) to the PolyPaper paste. The mixed paste should be about as thick as cream. There are no strict rules about exact amounts - just try out various mixes for yourself.

Paper
Newspaper is fine for most layered papier mâché projects, but it is fairly acidic paper, and can break down after a long time. Used paper and envelopes, Japanese papers, wrapping paper, and other papers can all be used, but they might be more expensive. I often start with a layer of 'nice' paper, add 8 or so layers of newspaper strips, and then finish up with one or two layers of 'nice' paper again.

Tear your paper into strips along the grain of the paper. Torn edges make a smoother finished surface than cut edges, which would create little straight lines all over your work. If you're making something big, the pieces of paper can be quite large too. If you're making something small, like a bracelet, you can use quite tiny pieces of paper. The smaller the pieces of paper, the finer and smoother the finished surface. Keep in mind that the paper strips need to fit into your paste tray.

Mould preparation & layering techniques
You can use many different objects as a mould for papier mâché. Remember that your final piece needs to be pulled out or off the mould, so avoid bowls and things with lips, bumpy bits, and handles. A cereal bowl or balloon is a good start.

To stop the papier mâché from sticking to your mould, line it with cling wrap. You can also use Vaseline, but I find the plastic wrap less gucky. If you're using a balloon as a base, there's no need to protect the balloon surface in any way, as you'll eventually pop the balloon.
I find that it's best to do 3-5 layers at one sitting, and then let your structure dry for a day or two, and then add more layers. This avoids your shape buckling as it dries.

8-10 layers of strips is usually enough for most papier mâché objects. Layer the paper strips in alternating directions, to make the structure stronger. You can also alternate paper colours to help keep track of the number of layers.

To prepare the paper strips simply place them in a single layer into the paste tray, and let them soak for at least 10 seconds. You don't need to dip both sides in. Then lift the end of one strip, and pull it out of the paste tray, scraping it against the edge of the tray as you pull. This should get rid of most of the extra paste. You might prefer to do this scraping bit with your fingers.

The most important things about layering are :

1. Don't have a lot of paste on the paper strips, scrape off the excess after the strips have soaked.

2. Rub the paper strips down quite firmly so they bond with the layer below — use your fingers like a burnishing tool.

If you find that paste is squishing out everywhere when you rub down the paper strips, then you need to scrape more paste off the strips before you use them. If the strips are falling off, and layers are lifting off, then your strips are too dry. Your object should be pasty and damp while you're working on it, but not dripping wet.

Another method of creating a shape with layering is to make a crunched newspaper base shape, held together with masking tape. The pasted paper strips are then layered onto this paper core. This is a great sculptural technique, and you can make quite big structures this way. I've even used it to make tough 'stunt' roast chickens and loaves of bread for a production of "The Taming of the Shrew" a few years ago, which survived being thrown to the ground for over 25 performances.

Once you've done several layers, leave your artwork to dry - you can hang up a balloon with string, or you can rest a bowl on a wire baking rack, or just sit it somewhere warm and dry. After a day or two, add the rest of the layers and let it dry again. Then you can decorate it!

Papier mâché pulp

The second technique for papier mâché is where the paper is made into a sort of clay first, and then used to mould things.

How to make paper pulp

Soak a large saucepanful of shredded or ripped up paper in water overnight.

Used computer paper, envelopes (without the plastic windows), clean paper bags, old school notes, and so on works well. (Newspaper isn't so good for making paper clay.)

The next day, simmer the soaked paper over low heat for about 20 minutes.

If the paper hasn't been finely shredded already, use an old blender (not one used for food) or an electric whisk to break down the paper. Only whizz up a cup or so of paper at a time, and make sure there's plenty of water. Keep your paper making utensils, including the cooking pot, separate from food utensils. Inks and paper fillers aren't supposed to be eaten!

Strain the mixture through a sieve. Gently squeeze out the extra water, but not too much. The pulp should be firm and damp, not hard and dry.

Put the strained pulp into a bowl. Mix in 1/2 - 1 cup of white PVA glue (*Aquadhere* or *BondCrete* are good).

Sprinkle in enough dry wallpaper paste to give the pulp a workable consistency, mixing it quickly. I use *Polypaper Paste*, which is quite concentrated, so a few tablespoons of paste granules is usually enough. Mix well (add any optional extras like oils or fillers, see below) and you're ready to use it! Store pulp in a plastic bag in the fridge.

Optional additions

A few drops of **Oil of Cloves** (this will help stop mould growing in the pulp, plus make it smell nice - you can buy it from chemist shops - it's quite inexpensive, and a little goes a long way).
Linseed oil - a few spoonfuls will help make the pulp more workable (but note that it is toxic, so don't use it if children may put the pulp in their mouths).

Powdered chalk or **Cellulose Filler** - these help to make a smoother clay (look for Marking Chalk, which is used to mark lines on sports playing fields).

(Based on the pulp recipe in *"The Encyclopedia of Origami & Papercraft Techniques"* by Paul Jackson, 1991)

Paper clay techniques

Paper pulp is very easy to use, and faster than the layering technique (mind you, the pulp preparation takes a fair time).

It can be used like clay to make bowls, trays, plates, sculptures and so on. You can use cardboard and crushed newspaper as bases, with pulp added over the top. If you use a bowl, plate, or other object as a mould, cover it with cling wrap first of all. If the cling wrap tends to fall off, 'stick' it onto the mould with a few smears of Vaseline.

You can also start with layered papier mâché (say on a balloon base), and then finish with paper pulp(once the layered section has dried). In this way you can make decorative legs, handles, feet, and whatever else you can imagine on your papier mâché objects.

If you need to add something that will be supporting weight (a handle), needs to be strong (feet on a bowl), or extends a fair way from the object (like wings), make a cardboard shape first, glue and tape it to the dry base object, and then when it's dry, add the paper pulp layer.

The main restriction with paper pulp is to keep the thickness of the pulp below 2 cm (about an inch). The thinner it is, the quicker it will dry. A thickness of between 5 mm and 1 cm is about right.
If a section breaks, just gue it back together with PVA glue, and you can also smooth the join with some smooth paper pulp, or some soft tissue paper (white toilet paper is good).

Once you're happy with your object, leave it to dry in a warm airy place for a few days. Don't try to speed up the process as this can make your object distort and discolour. After several days, you can remove the mould carefully and leave for another day or two, if any areas are still damp.