

PAPERCLAY - THE BEGINNINGS

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Mix what with clay?

an early article about paperclay,1993

Cellulose fibre is a hollow tube-like structure which is an essential part of all plants and trees. It plays an important part in photosynthesis and osmosis. It has an amazing ability to syphon moisture into itself, acting like a sponge. Different sources give a variety of fibres, the length and size of which depend on the type of tree or plant producing them.

An easy source of fibre for the potter can be found in any manmade paper. This can be torn into shreds and soaked in hot water, usually all that's necessary to break it down, but for extra speed an electric drill fitted with a mixing blade is useful.

Shorter fibres which form the basis of tissue, toilet paper, blotting paper and newsprint are excellent. So is computer and photocopier paper. All these break down easily in hot water. If you can afford it, pure cotton and linen papers used by artists are best as they have a marked absence of lignin, a complex polymer associated with cellulose. Being a cell wall stiffener, lignin is water resistant and can affect the amount of water needed to soak the paper.

Cardboard is best avoided as it contains glue and also shiny papers which contain kaolin - neither of these break down easily in water.

A good test of whether a paper is suitable, is to see how it tears- the more easily it tears, the shorter and more suitable the fibres it contains.

Under magnification clay particles are tiny compared with cellulose fibres. When clay slip and paper pulp are mixed together the platelets of clay are easily syphoned into the fibre tubes. The resulting complex network of fibre and clay slip gives the mixture important and unusual working characteristics of benefit to potters and sculptors.

Other materials such as nylon, fibreglass and sawdust have been mixed with clay, but nothing compares to paper pulp in its effect. Paper fibres give a non-smooth slightly spiky surface which further enhances its binding qualities. One very unfortunate disadvantage compared to nylon or fibreglass must be admitted - after about a fortnight it begins to SMELL! To avoid the decay of this plant matter, the pulp could be mixed as needed, or stored in plastic bags in a deep- freeze.

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Any clay can be used. It needs to be mixed well until smooth and creamy. A deflocculant can reduce the amount of water and subsequently the time needed for evaporation and drying. A quick and convenient clay therefore, is casting slip, though personally I find this an excellent way to use the slops and trimmings from my potter's wheel

So what's all the fuss about?

It's virtually impossible for large cracks to develop as the clay dries.

Layering on dry slabs will not warp.

Excellent for layering in plaster moulds.

Works well for coiling technique.

Joining pieces can be done at any stage - dry to wet to leatherhard all join well.

As the material dries it develops unbelievable tensile strength.

Fired and bisqued pieces can be embedded into the soft slip.

Ceramic pieces can be bigger and stronger and up to 50% lighter in weight.

It behaves exactly like clay in the firing process - it IS clay.

‘Can readily be poured. Who needs a slab roller any more?’

Can you use the material on the wheel? The answer for me is "No". I can't throw this clay on my wheel, neither can I wedge it.... but some people claim they can.... .

I am indebted to Ibrahim Wagh of London who worked with me for ten weeks at Banff Centre for the Arts when we were resident artists in 1991. Rosette Gault of Seattle who was also a resident artist at that time, continued researching the material and published her booklet "Paperclay for Ceramic Sculptors this year". I used her findings extensively in my work and in this article

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Notes on the photographs



1 Hot water, tissue, copier paper is soaked and beaten with an electric drill mixer blade. Be generous with the water, more than you think!

2 The pulp is poured into a sieve and then squeezed by hand to remove most of the water.

3 Pulp dropped into clay slip. Use volume ratio from 10% to 50% paper pulp. A ruler simplifies measurement of volume.

4 Porridge consistency. Thoroughly mixed by hand, stick or mixer blade, the clay now looks like oatmeal porridge. Poured onto a dry surface or plaster slab.

5 Paddled and plastered with a knife or flat stick to any thickness. Thin edges show the fine fibres.

6 Poured into a frame or mould the material lends itself to any shaping method. Can dry overnight.

7 Wet paper/clay slip can be added to dry

without any problems, smoothed or textured to taste.

8 Thin and thick can be combined in one slab.

9 Hard dry slabs can be scoured with a sharp knife and snapped over the edge of a table. The cellulose fibres are just visible to the eye.

Bigger image next page.....

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