

The Magic of Paperclay

At the *Playing with Fire* conference last year, Rosette Gault spoke about the technical aspects of paperclay, and also the creative potential of this amazing material. Here she expands on the fascination and possibilities of mixing paper and clay.

To play with fire in ceramic sculpture is to blend the fire of the imagination with the blaze in the kiln. With the medium of ceramic paperclay, the fire of the imagination can now be seen in more varieties than ever before. Ceramic sculptors in the past could see little value in adding paper pulp to recipes because it ultimately burns away so early on in the fire (240°C/450°F). Other additives such as sawdust or nylon seemed to suffice when the need for superior green strength or a reduction in weight was called for. A few people had mixed and fired concoctions of clay and pulp in various parts of the globe, but few, if any, dared defy the cautions we had all come to accept as part of the discipline.

Even the artist Robert Rauschenberg, in the 1950s during a visit to hot and humid India, had had to abandon a sculpture in progress made of a form of paperclay. Why? Little doubt that, as taught, he may have covered the work in wet towels which is just the opposite of what we know now to do. The wet towels and humidity eventually caused the sculpture to stink. I can imagine the scene. Had he known to let the inner structure of the sculpture *dry out* completely before adding fresh layers of the wet over the dry as he proceeded, there would have been little chance for the sculpture to become overly ripe and unpleasant. In fact he would have had the freedom to break and re-break, attach and re-attach, arms and legs (and/or handles) as the need arose, regardless of whether these were dry, leatherhard or wet, (maybe even bisqued). Without ever having to cover the work in plastic or wet towel, he might have spent as much time as he needed to get the forms and surfaces to satisfaction before the firing began. At that point, he could have transported the green unfired sculpture to the kiln of his choice, knowing that in the unlikely event of an accidental break, a repair was still possible. He would have had even more choices than this. He could have inserted small (2"-3") fired and glazed or bisque ceramic pieces directly into the wet clay, he could have inserted or added castings from plaster moulds as well, either as a point of departure or as a highlight. Again, using wet and leatherhard over the dry, he could customise the texture and detail on each one as he so loved to do to his screened images in two dimensions. All these choices were possible even then, but the puzzle pieces and the necessary development of paper technology still a dream. Paper used to be scarce during the war, extra soft fluffy toilet paper, and ubiquitous computers were not in common use, either.

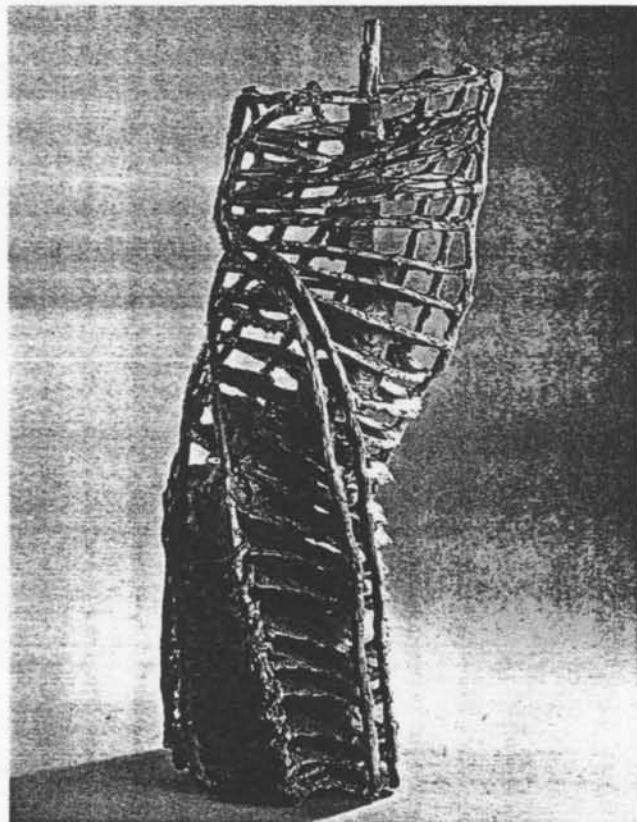
The substance of paperclay as a sculptural medium is most definitely ceramic and is subject to all the same laws of thermodynamics once it is placed in the fire. The cellulose fibres burn up long before red heat is attained. Thus all our knowledge and expertise about chemistry, firing, glazing and craftsmanship, is still very much needed. Today outrageous, even impossible looking forms can be made in

paperclay which will survive to the bisque state. However, if these are poorly engineered as a structure before the firing, they will tend to slump or warp if fired too hot or close to the melting point of that particular clay, such as in porcelains.

Shrinkage in paperclay is within 1 per cent of the parent or original clay on which it is based. Paperclay can be made out of any clay. In the 1950s we did not have electron micrographs to see the structure of kaolin particles, or paper fibres too small for the naked eye. Paper fibres, or cellulose, which are magnitudes smaller than nylon or sawdust, are very durable and hollow. Each cellulose fibre is by nature designed to absorb water and functions inside a clay body as an efficient capillary inner structural system to distribute moisture deep into and out of the interior of the clay as it dries out and shrinks. These cellulose fibres can compress and expand with the clay giving little or no resistance. Meanwhile, as the fibre they knit together as well as interrupt the patch of stress cracks as they occur. This is why wet paperclay can be applied over dry repeatedly without causing cracks. Sculptors can even control the grain of wet paperclay layers as reinforcement is needed. Should a crack appear, it can be puttied in, sometime even at the bisque stage.

When mixing paperclay it is important to be sure to use

Graham Hay - 'Spine' (socially constructed two). 1994, porcelainish clay, 55 x 22 x 23cm

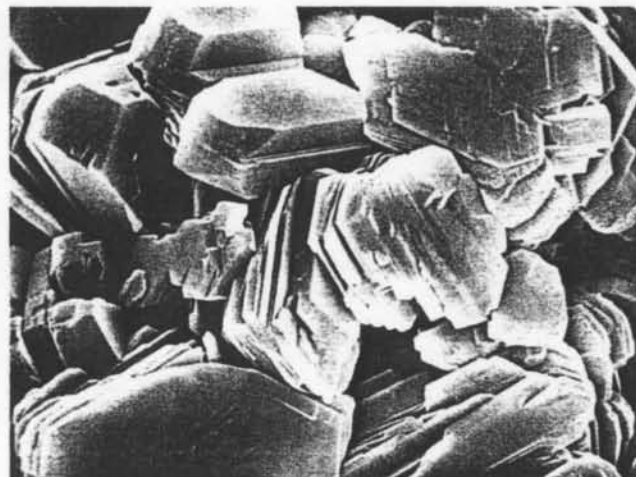




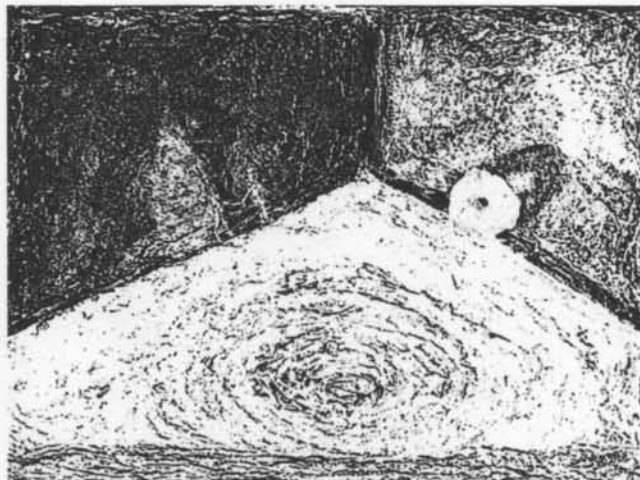
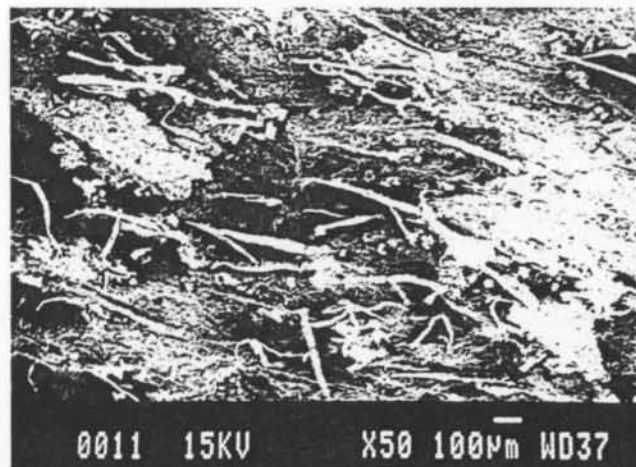
Rosette Gault - 'Desire' 12 x 10cm

plenty of water in the pulp before straining. Use uncoated papers that tear easily, out-of-date brochures or even newsprint. Most of the inks burn away. When you add the pulp to the clay, add it to a clay slip as a paste, *do not knead it in*, as the little particles of clay should surround the individual fibres for best results. Electron micrographs show that paper fibres are huge in comparison with clay particles, but so tiny you will hardly see them when in a clay body. Put the P slip (paperclay slip mixture) out on a plaster bat to stiffen up to a soft clay-like plastic consistency. If you let it dry out

Electron micrograph, kaolin particles



Electron micrograph, low pulp paperclay, dry



Rosette Gault - 'Edge of Fear', 23 " x 31" x 2.5", earthenware, mixed media, 1991

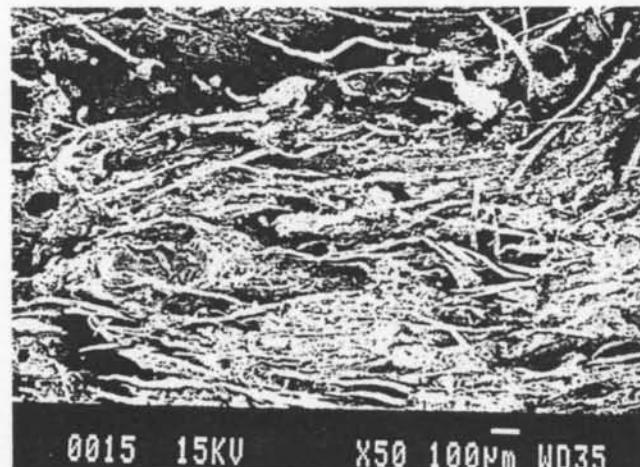
completely on the plaster bat it should normally dry, and fire thereafter flat. Thick and thin can be worked together.

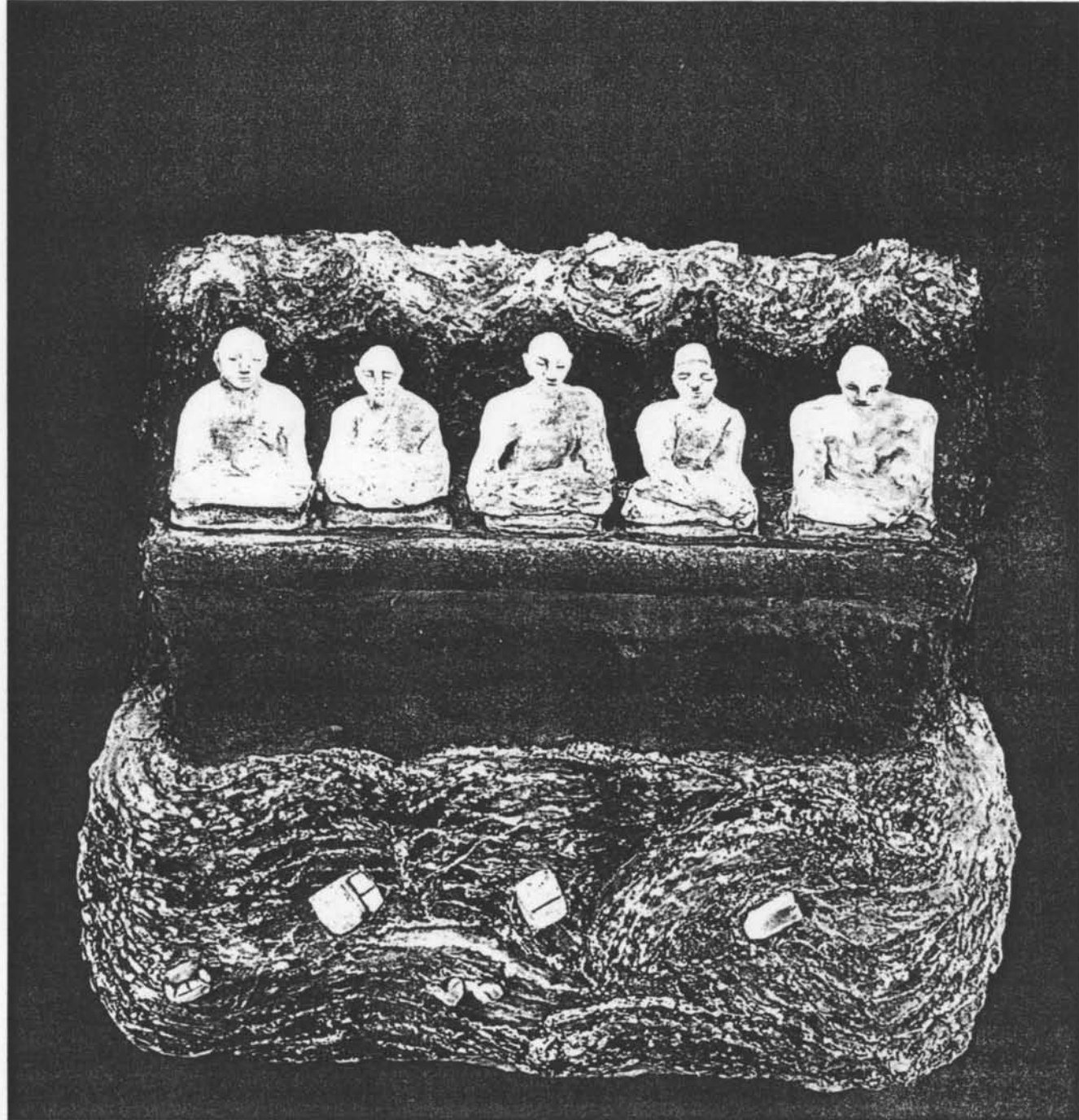
Try new ways of working with it wet on dry, in addition to the conventional methods. Unusual methods of construction are described further in my article published in 1994 NCECA Journal in USA. Test fire, until you find a recipe you like, I often use about 30% by volume of pulp to 70 clay, but if it is still cracking as it dries to bone, just add more pulp to the next layer. A lot depends on the clay and the paper you have chosen.

Electron micrograph, cellulose tubes



Electron micrograph, high pulp paperclay, dry





Rosette Gault - 'Difficult Buddhas', 45 x 12cm

The forms illustrated here were worked with the wet over dry armatures, and some were fired using inserted parts of bisqued and glazed conventional clay. Some artists are using the material for large-scale murals as well as pieces that indicate substantial investment of time on the detail, which would have been unrealistic, because of the chance of failure, to try with conventional clay. Ceramists such as Leslie Lee choose to use both conventional and paper clay together.

Ceramic sculptors should not become like the elephants, tethered at the ankles by tiny chains even though they have long since grown up and could easily break the chains placed there in their youth. Let us be free to use whatever form of ceramic will meet our needs. Admittedly, the use of

paperclay defies much of my logic and training, however, I now feel an increased sense of freedom in the studio. The use of paperclay is now in the hands of those ceramic sculptors who would require even more freedom to express their ideas than conventional ceramic affords.

*The 62 page booklet **Paperclay for Ceramic Sculptors** by Rosette Gault will be sent to you by order \$26.00 (overseas) (\$19.95 in North America) in US Funds to PO Box 9060, Seattle, WA 98109 USA.*

This process is patent pending. Individual artists may create one of a kind works, but licenses for commercial applications should be obtained from the author.