The Artistic Possibilities of Cellulosic Fibers

Chery Cratty

Plant fibers have been used for over 2,000 years to make paper. When the process of hand papermaking paled, I set out to find a way to use cellulosic fibers as paint. A decade of experimenting led to the choice of 3 main fibers that worked best. Methods of cooking, preparing, coloring, and drying were tested and refined. Using pulp as paint brought me the innovative techniques I developed in this new craft medium and led to recognition as a Tennessee Master Craft Artist. I continue to experiment with new ways to use pulp as paint.

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Plant Fiber Pulp for Painting

Plant fiber pulp is wet and gooey, and I use it as paint. Plant fibers have been used for over 2,000 years to make paper. The traditional processes of making paper by hand are based on cooking and cleaning plant fibers, producing cellulosic fiber free of impurities. The fiber is processed by contemporary artisans in a machine called a Hollander Beater, effectively separating the fiber and producing pulp. Crafting pulp from plants is intriguing, but after a decade just using the pulp to make sheets of paper lost its charm.



Mountain Curve

Coming from a background as a painter led me to consider how to turn this pulp into paint. This was a daunting prospect, as there were only a handful of pulp artists in the whole world, and none of them used pulp the way I envisioned.

Fibers Used, and Why

Previously unknown techniques of painting with pulp were developed by me through 10 years of experiments, mainly in discovering what didn't work, and the years since working with what did. The fibers that work best for me are cotton, abaca (manila hemp), and kozo (mulberry).

The relatively long cellulosic fibers of abaca intertwine through hydrogen bonding as they dry, creating a strong, textured surface. The cotton fibers I use are comparatively quite short, and they work best for the spraying techniques I use preparing the initial canvas ground.

Fiber Preparation and Coloring

The cotton fiber comes from recycled denim remnants, returned to the pulp state in a Hollander Beater. The abaca and kozo are cooked in a washing soda bath to remove the lignins, starches, *etc.*, leaving relatively pure cellulose. After rinsing, the abaca is also beaten in the Hollander to separate the fibers. The kozo fiber is rinsed and kept in its original state, being strips about 3 feet long.

The pulps are colored using pure aqueous dispersed non-fading pigments, the same pigments used in car paint and highest quality artists paints. The water is drained from the individual pulp batches, and the pulp is then squeezed and dried in hand-size pieces. The fibers are pliable at this point and have no stickiness. This drying also eliminates the degradation and smelliness that would occur in pulp left sitting around for a few weeks.



Close-up of fibers

Dappled Light

How Bright Colors are Achieved

Color intensity is controlled by the amount of pigment used initially in coloring each batch; colors can also be lightened or darkened by intermixing with other colored fibers when being used. A few pigments are naturally staining and bleed when the pulp is reconstituted, but most are colorfast. Using a cellulosic liquid (for example carboxymethylcellulose), I make up the amount of pulp needed for a day, usually between 3 and 9 ounces per color.

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Using Porcupine Quills to Produce Dimensional Effects

When reconstituted and ready for use, the pigmented pulp is very thick and slimy, resembling oatmeal. A normal painting brush will not pick up the pulp, and a palette knife just slides through it. The tool I found that works best for me is a South African porcupine quill. There are tiny, invisible barbs on the tip of the quill (ask any dog who has met a porcupine) that allow individual fibers to be picked up, or a large clump of fiber. I place these (or flip from the tip of the quill, which is more fun) onto the textured canvas surface, manipulate the fibers with the quill end, and allow to dry, before adding the next layer. The drying allows for the build-up of texture, creating a 3-dimensional surface. With the pulp and quill, I bring realistic images to life in an impressionistic style.

As many as 40 layers of varied colored paper pulp paint are usually added. The drying process between each layer allows time for contemplation of the next layer. The abstract interaction of these colored fibers works well to create realistic and dense images. For example, pulp flipped from the tip of a porcupine quill and quickly manipulated creates a bright cluster of highly textured leaves that seem about to sway in a gentle breeze.

Planning Ahead and Correcting Mistakes

For me, planning ahead is essential. I work from images and drawings and have a firm idea of the end painting. That said, there are always detours and sometimes outright complete changes of direction when I am working.

Sometimes after applying pulp, I decide it's not the right color for that spot, or else I've flipped onto the wrong spot. Once the wet pulp contacts the dry layer beneath, it immediately begins to bond and is almost impossible to remove without disturbing what is beneath. However, by allowing the pulp to dry and rewetting it lightly with water, the top layer can be removed with tweezers - mistake corrected!



The author with quill in hand

Drying Process for Pulp Paintings

The initial painting surface is comprised of canvas stretched on a wooden frame. To this canvas, recycled black denim, beaten to a pulp, is applied with a stucco sprayer. Ten or more layers are sprayed on the canvas, dried between each layer, to create a solid, textured surface. The tautness of the canvas keeps the pulp from shrinking as it dries.

Painting with the quill occurs in a similar fashion, with drying times between each application of colored pulp paint. This process takes from a week to several months, depending on the size and complexity of the subject. A week or so after a pulp painting is finished, it is lightly sealed with a sprayed latex coating to protect it from dust, humidity, *etc.*

Further Work with Pulp as Paint

Using pulp in this fashion brought me recognition as a Tennessee Master Craft Artist. The innovative techniques I developed in this new craft medium led to a grant that allowed me the opportunity to pass this knowledge on to an apprentice. I am continually experimenting with new ways to work with pulp. My goal is to raise the awareness of this craft and share it with others through teaching, craft shows, and exhibitions.