



Banana fiber, section of banana stem, and extracting implement. All photos courtesy of Jenny Pinto.



Banana stems are peeled into layers, then scraped with a broad, straightedged knife.



The extracted banana fiber is a lustrous raw material for paper-making.

Jenny Pinto and the Glow of Banana Fiber

SUHAG SHIRODKAR

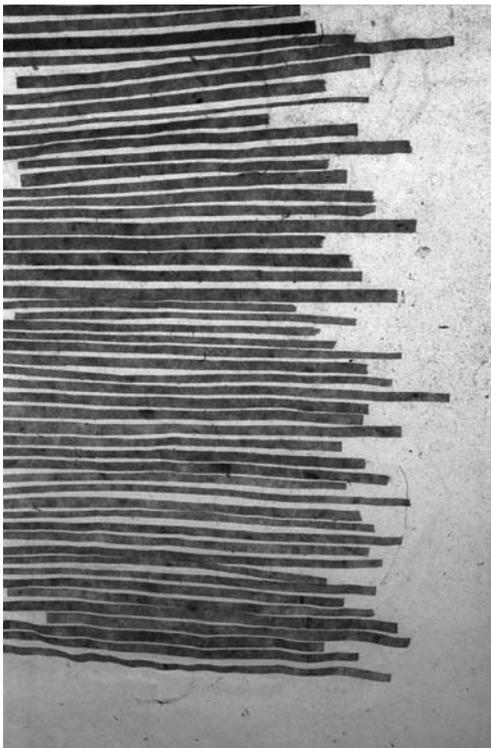
On a cloudless Bangalore morning, I visited with Jenny Pinto to talk about her paper studio, its beginnings and growth, and its focus on a single fiber: banana. We sipped lemongrass chai in the leafy courtyard of her workshop and enjoyed the comforting sounds of a paper studio at work: the muffled thud–thud–thud of the Hollander; the gentle, rhythmic swoosh of sheets being lifted from the vat; and the murmur of conversation as workers transform banana sheets into elegant paper lighting fixtures.

While Pinto has experimented with many local and exotic fibers, banana clearly rules. The studio's processes, workflow, and output are driven by banana fiber's unique strength, luster, and malleability. Such a focus requires a deep understanding of the fiber and its nuances. Pinto is intimate with banana fiber, knowing it almost as if it were a dear friend. At the same time, the banana fiber seems to rely on her to show off its natural luminosity and magnificence.

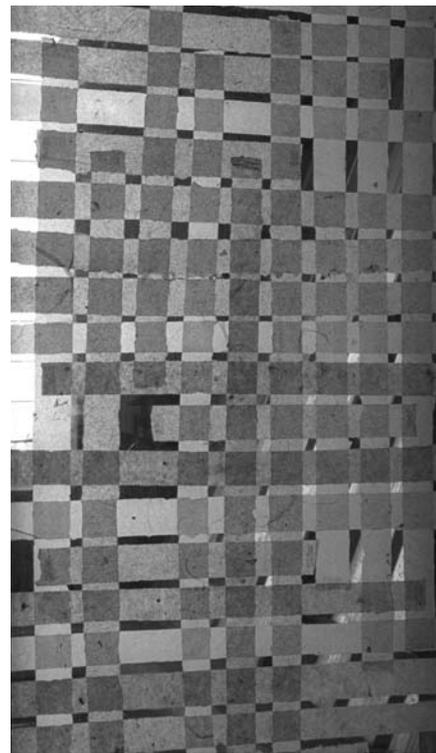
Often when banana is used in papermaking, fiber is obtained by chopping up and cooking whole banana trunks. This quick, rather primitive process results in paper that is dark, brittle, and very fibrous. Pinto's method, in which she insists on using only extracted fiber, results in paper of quite a different caliber.

Banana fiber extraction is tedious and labor-intensive; sound reasons why the studio does not attempt processing in-house. After the hands of banana are harvested in the fields, the heavy, moisture-laden stems are cut down and peeled into their component layers or sheaths. Flattening a single sheath on the ground, a worker pins one end of it under a broad, straightedged knife. Then she draws the sheath firmly from under the blade. The watery pith matter separates, yielding a tiny handful of raw fiber. It is estimated that 70 full-grown banana trunks yield a single kilo of dry banana fiber. Once extracted, banana is a lustrous, shimmering fiber. It is delivered to the studio in 50-kilo bales, bundled in sacks of jute, still redolent of the warm, loamy soil of Tamil Nadu, where it grew.

Bananas are a dominant cash crop in southern India. The industry leaves behind a fair amount of available fiber which is typically used to weave mats and baskets, to make cordage and craft items, and as an inexpensive filler for



Paper strips sandwiched between sheets of unbleached banana fiber paper.



A grid screen with dual tone strips of paper, made from various types of fiber, between glass sheets.

rustic cushions and mattresses. Yet, banana fiber is an underutilized agricultural by-product. Pinto's work in converting fiber to paper consumes little energy and minimal chemicals, generates much-needed jobs in a region plagued by chronic unemployment, and results in products that take advantage of the naturally beautiful and flexible working properties of the fiber. In this way, banana fiber fits seamlessly into Pinto's environmental agenda and the ethos of her studio. The workshop buildings, designed to harvest rain and storm water, are completely constructed of sun-dried mud brick, an environmentally responsible alternative to reinforced concrete and steel. All water used in the papermaking process flows into two settling tanks. From there it drains successively through a sedimentary bed of gravel and sand and a thicket of marsh grass that oxygenates the water. Finally, it flows into a lovely little pond. The pond supports a host of wildlife (frogs, toads, fish, and water beetles), a testimony to the life-supporting purity of the reclaimed water.

After the banana fiber is delivered to the studio, it is picked clean to remove particulate matter and then soaked overnight. The following morning, it is cooked for about three hours in a 30 percent solution of washing soda. To speed up the cooking process, Pinto experimented with caustic soda (NaOH), but rejected it when she found out that it weakened her paper and diminished its natural sheen. Pinto beats the cooked, washed fiber in her Hollander for two to three hours. While the lengthy beating time slows down sheet formation, the highly hydrated, fibrillated fiber lends translucency and surface strength to her finished sheets.

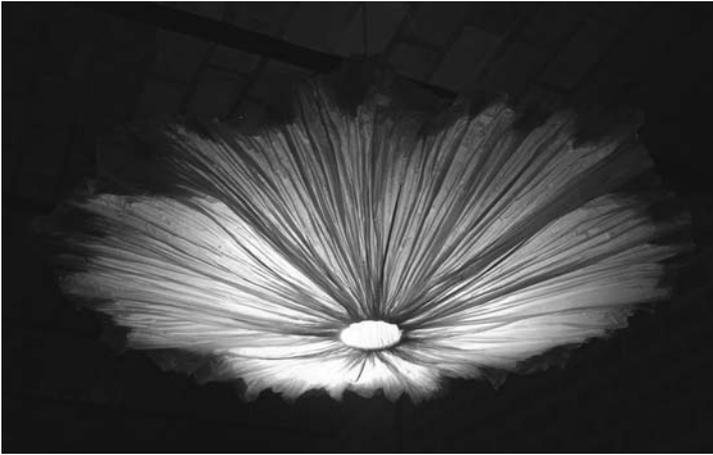
Paper made from highly beaten fiber is malleable and responsive, providing ample scope for wet embellishment. Due to the paper's high-shrinkage properties, Pinto achieves interesting effects

with simple wet techniques such as layering, creasing, crushing, and sandwiching. Banana fiber is also extremely strong when working wet. Couch two sheets on top of each other and the resulting composite sheet is almost impossible to tear. Double-couched sheets that are wet-manipulated and then sculpted when semi-dry retain their shape permanently without armature or additive. The results are quite amazing.

Pinto also introduces further variations by altering the drying method. Air-dried and vacuum-pressed sheets show distinct differences in their final look and feel. Dry manipulation of the sheets is equally rewarding. Creasing, twisting, and scrunching dry sheets result in a soft, gentle form that nevertheless stubbornly retains shape.

During my visit, over a naked light bulb, we compared light diffusion through lokta sheets from Nepal, Japanese kozo and mitsumata paper, sheets of machine-made Thai mulberry, and Bangalore banana paper. It was easy to recognize the special glow of banana. For Pinto, it is the quality of transmitted light, offset against shadows intrinsic to the design, which gives banana paper its unique poetry.

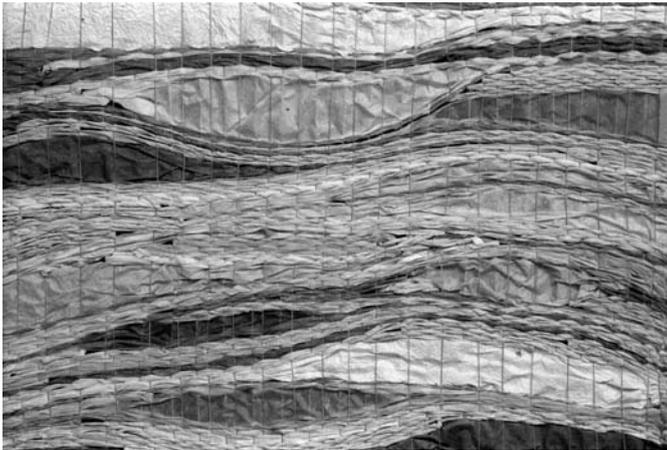
Pinto's personal aesthetic is spare, minimalist in design, and somewhat reminiscent of Noguchi. Natural form and color are celebrated, and local materials—granite, twigs, and leaf skeletons—are employed as armature or embellishment. Color is rarely added, allowing the viewer to fully appreciate the nuances, tones, and range of sepias inherent in natural banana paper. Sometimes Pinto sun bleaches or uses a mild chemical bleach to achieve lighter tones. She expands her color range and adds an extra dimension by consciously using shadow as a design element. As Pinto noted, "My lights should look beautiful even when they are turned off."¹



Ceiling light fixture, 40-inch diameter, overbeaten, banana fiber sheets (20 grams per square meter), press dried, and crushed.



Grouping of wet-manipulated lamp forms made of overbeaten banana fiber paper, double-couched, and crushed.



Paper made from banana fiber and banana bark. Varied cook and beat times provide nuances of translucency, texture, and color.

On occasion, Pinto has worked successfully with other artists and designers to stretch the range of banana fiber. The studio has thoughtfully been equipped to accommodate visiting artists in residence.² Shifu mats, woven on handlooms, grace worktables around the studio. With a textile artist, Pinto has woven banana paper to produce tapestry-like lighting units.

Currently, Pinto is working on a host of cooperative projects that will enable rural communities to develop local expertise in making banana paper and its end products. By creating jobs rooted in remote villages, Pinto works towards empowerment and self-sufficiency in India's heartland, all the while bringing the magic of banana fiber to light.

NOTES

1. Pinto's work can be viewed on her website, www.jennypinto.com.
2. If you are interested in a visit or working vacation at the studio, please contact Jenny Pinto at pinto.jenny@gmail.com.