

## Desert Plant Microscapes

by Jill Littlewood

It isn't every conference where you plunk your self down at a desk and get a pen, a pad of paper with the name of your hotel, a glass of water and a goofy looking pair of 3-D glasses. But Gene Valentine wanted to make sure we were having a presentation we couldn't get anywhere else.

Imagine you are looking at a huge slide screen with a confusing image: tangled lines, overlapping grainy colors – a visual cacophony. But now, Gene tells you to put on your glasses. Suddenly you are in deep space, and giant tubes and ropes are weaving around you, including you in a sculpture of color and light. These are plant fibers – agave, cholla, barrel cactus, prickly pear, Mexican fan palm, bottle tree pods – that have been beaten in a Hollander an hour or less and photographed with a scanning-laser corifocal microscope. Papermaking never looked like so much fun.

The magic of this rests on cutting edge technology: this microscope is unsurpassed for producing sharp 3-D images that allow viewers to see layers all the way through the sheet of paper. The microscope scans successively deeper layers – of a specimen and then uses a computer to assemble the images into a single composition. Science and art are blended seamlessly.



---

Reproduced from *Bull & Branch* [Friends of Dard Hunter, Inc. Newsletter. Vol. 24, No. 3, Feb. 2006

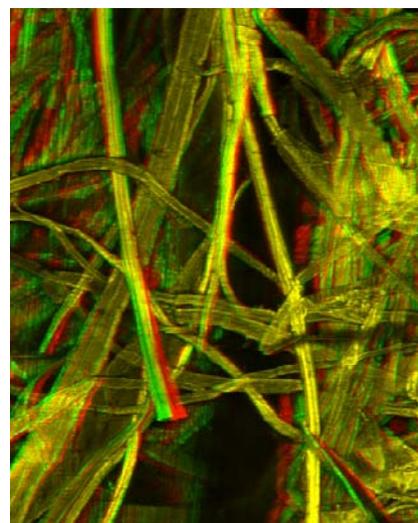
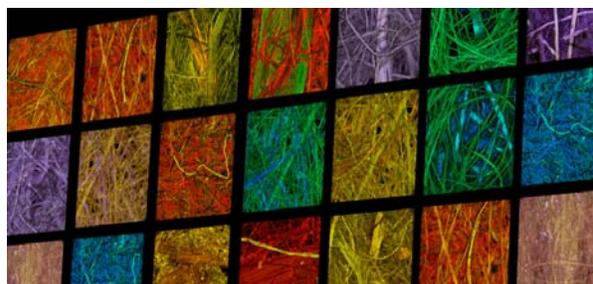
---

Because the images have depth, Gene has found that dancers can use them to create stunning performances. We saw images of the dancers weaving among the projected strands of fiber and then some brave Dardos (wearing white clothes) got up and moved into the images to give us a real-life performance.

Gene and his partner, Charles Kazilek, have been exploring the structure and beauty of paper since 1998. A highlight of their work was a presentation in Times Square, N.Y., of their images as part of Nikon's Small World Touring Exhibit in 2004. How I wish there could have been dancers flying through the air to interact with those images!

To see more, check out the Paper Project website at [www.paperproject.org](http://www.paperproject.org). Before you go, see if you can beg, borrow or steal some goofy looking 3-D glasses.. It will make the journey so much deeper.

Top to Bottom: Multiple images of various fibers. The Friends don their glasses to see with greater depth. A closer 3-D view of a fiber structure.



Photos: Maxine Seelenbinder-Apke