

INTHESTUDIO

ALYSON SHOTZ

INSPIRED BY PHYSICS, OPTICS, AND THE NATURAL WORLD, THIS ARTIST IS OUT TO CHANGE YOUR PERCEPTION OF PERCEPTION BY SARAH P. HANSON

BEFORE ALYSON SHOTZ knew she wanted to be an artist, she wanted to be a scientist. She recalls being bowled over by the concept of black holes in her freshman-year physics course at the University of Colorado, Boulder. "It was the bending of space and time, the fact that without space, there is no time... but then there's another strain of thought that says time is happening all at once," she says, her eyes lighting up. One change of majors and three decades later, her practice is still informed by a scientist's wonderment and curiosity, from her affinity for chameleonic materials to her disruption of our assumptions about knowledge and the senses.

The artworks recently on display in Shotz's exhibition "Geometry of Light" at the Espace Louis Vuitton in Tokyo attest as much. The luxury retailer's towering glass-cube gallery was dominated by the show's namesake sculpture, a 50-foot-wide suspension featuring graduated disks of Fresnel lens strung on beaded stainless-steel wire. The disks-made of the same kind of ridged plastic found in cheap drugstore magnifiers-shimmer



INTHESTUDIO

on their strands and snatch glimpses of the surrounding skyline. In the daytime they suggest the roiling interior of a cloud in formation; at night they take on a weightier, opaque quality, like icicles caught in mid-melt. Shotz was delighted to learn that visitors would arrive and sit, watching as the sun crossed the sky, or return at different times of day.

From top: Shotz's Mirror Fence 2003, which blurs the boundary between negative and positive space, is on view this summer at Storm King Art Center in Mountainville, New York; the artist's deep interest in mapping and math comes to the fore in My Living Room Rug in Hyperbolic Space, 2007.

It's a neat trick for a stationary sculpture to engage viewers the way a film would, but that is just the kind of work in which the artist specializes. Shotz has built a reputation for absorbing, ethereal pieces that capitalize on natural phenomena to tweak perceptions of the surrounding environment. Often monumental in scale, they are as notable for their range of materials—glass, string, acrylic, aluminum, digital prints, and, recently, animation—as they are for their thematic consistency. Shotz, who spent most of her childhood west of the Mississippi River, has a special





reverence for the geological miracles of the American West. "Nature is such a big part of what I do," she says. "I believe strongly that the physical world has a lot to teach us. There are things that I see happen when I'm working with a material that tell me something about gravity, space, force. I'm interested in showing that idea through the artwork."

Shotz is preparing to reprise elements from "Geometry of Light" at the Indianapolis Museum of Art, where the main sculpture will take over the enormous lobby from the 10th of this month through January 6, 2013. It will be paired with a dual-channel video animation, *Fluid State*, 2011, based on the movements of a mesmerizing sea of silver beads and set to a commissioned soundtrack by British electronic musician Simon Fisher Turner, a self-described "one-man sound clash between La Monte Young and Iggy Pop" who has scored feature films for Derek Jarman.

Shotz's studio of eight years in the Red Hook section

of Brooklyn, not far from the waterfront, is surprisingly small, considering that some of her best-known artworks-such as the clever Mirror Fence, 2003, a picket fence fronted with highly polished aluminum that both reflects and blends into the grass that surrounds it, and The Shape of Space, 2004, a monumental patchwork wall of 18,000 Fresnel lenses that anchored a 2007 group exhibition at New York's Solomon R. Guggenheim Museum—stretch to 130 feet or more. These she often creates in pieces, assembling them on-site and adapting them as she goes; their DNA is evident in the smaller-scale artworks in the studio, which are instantly familiar though I've never seen them. Shotz is inclined to work in series, with slight variations, and her oeuvre can be loosely grouped into three types: intricate, process-intensive, handmade pieces; shiny minimalist sculptures in acrylic or steel that she executes with fabricators; and abstract photographs or digital designs based on photographs.

A kind of cross-fertilization informs the towering inkjet prints on vinyl that she has been experimenting with in the past few years. Cherrypicking snippets of flowers, trees, water droplets, antennae, and webs from her own photographs and sculptures, she digitally combines the elements into trippy, squirming compositions evocative of CAT scans set against black grounds. "I think of the digital photos as imaginary structures that live in a world without physical laws," she says. "Large things can become small and small things become large; organic things sprout from inorganic things." And, she adds, the density of the image compels people to keep looking.

Clad in jeans and clogs that reveal bright pink socks, the artist is thoughtful in describing her process. When embarking on a new idea, Shotz explains, "I look for materials that serve a particular idea or behavior. Many times I just begin to work, modifying as I go. Because much of my sculpture is created in unison with light and gravity, conceiving it as a drawing or on the »

INTHESTUDIO





computer doesn't always work as a way of starting out." She rifles the iridescent black strands of a work in progress that hangs from the ceiling like the splayed guts of a fiberoptic cable. The suspended sheaf of steel wire threaded with tiny glass beads reminds me a bit of her 2009 installation Equilibrium, at Derek Eller Gallery, in New York, whose concentric curtains of silver-beaded piano wire took on jellyfish-like shapes and movements from their own weight. A similar piece, Wave Equation, was featured the following year at the Nasher Sculpture Center, in Dallas.

A kind of motion is nearly always present in Shotz's works, even in the highly reflective surfaces of her stationary sculptures and wall pieces. She gestures to a new wall piece in undulating dichroic acrylic, a colorless film that can be applied to Plexiglas or metal and refracts light in the same way that oil on water does, producing a rainbow effect. She started working with the material in 2007, pleased to find a medium that physically encapsulated the mutability that she had been trying to harness with her transparent and mirrored pieces. The light-bending dichroic is likely to figure in her MTA Arts for Transit project for the elevated Smith–9th Street station in Brooklyn when it reopens later this year. "I really like an element of changeability," she says, comparing the ideal experience of her work to "being caught up in a weather event."

Shotz's accessible blend of phenomenology and aesthetics has won her many plaudits. Her work is represented in the Whitney Museum of American Art and the Guggenheim Museum in New York, the Hirshhorn Museum in Washington, D.C., the High Museum of Art in Atlanta, and the Los Angeles County Museum of Art. She has been awarded Pollock-Krasner Foundation grants in 1999 and 2010, a Saint Gaudens Memorial Fellowship in 2007, an artist-in-residence stint at the Yale University Art Gallery in 2005–06, and, currently, an appointment as the visiting artist at Stanford University's Department of Chemical and Systems Biology, which has commissioned a permanent piece.

Born in Glendale, Arizona, Shotz had a peripatetic childhood as the daughter of an Air Force pilot and a teacher, and recreational artmaking was one of her few constants. Long interested in science, too, she entered the University of Colorado and gravitated toward glaciology—"I was fascinated by the patterns determined by soil and ice"-but found herself more at home in the art department. Halfway through, she applied to art school, enrolling at the Rhode Island School of Design in 1984. She studied painting but was exploring photography and sculpture by the time she earned her BFA, in 1987. Returning to the West Coast for graduate school at the University of Washington, in Seattle, "I was all over the place," she recalls. "I was officially a painter, but I was making photographs, digital images, small sculptures." Although such interdisciplinary investigation was »

Above, stills from Fluid State, 2011, a video animation Shotz made with Todd Akita that will open this month at the Indianapolis Museum of Art. along with the Fresnel-lens installation Geometry of Light, 2011, seen at right with Transitional Object, Figure #1, 2010, and the muralsize digital print Coalescent, 2011, at the Espace Louis Vuitton in Tokyo last year.

100





"frowned upon" at the time, she earned an MFA in 1991. Shotz doesn't paint today ("I never rule anything out for the future"), but a lingering interest in the relationship between figure and ground is evident in her approach to objects in space. Her breakthrough came in 1996 with *Untitled (Reflective Mimicry)*, a video she shot with a model clad in a full-body suit armored in small mirrors, groping her way through a wooded glen, camouflaged even as she seems to animate the surrounding leaves and snatches of sky. "I wanted to create a situation in which there was an optical continuum between the figure and the ground, which is what I've done in a number of projects, but it started here."

The video's connection to seminal works by Dan Graham or Nancy Holt and Robert Smithson is obvious now, but Shotz wasn't thinking about those at the time. She came to the Conceptual art of the 1960s and '70s relatively late in her studies, she says, and cites Smithson's *Enantiomorphic Chambers* and Ana Mendieta's "Silueta" series as influential to her development in grad school. "Now that I think about it," she muses, "maybe this was an indication that I would become interested in a kind of displacement or shifting of the body in relationship to the space around it."

Like many of Shotz's works, *The Structure* of Light, 2008, achieves a dramatic effect from simple materials: silvered glass beads and piano wire. Shotz is as interested in the physics of bodies or objects in space as she is in our experience of them. She gestures to a telling stack of reading material on her worktable: *A Topological Picture Book, Ultimate Book of Knots, Mathematical Origami*, and *Pseudograph Associahedra*. The latter, she explains, are essentially topographical shapes, the n-dimensional generalization of the pentagon. "You're seeing things in action, in a way," she says, casually mentioning the research of Williams College mathematics professor Satyan Devadoss, with whom she explored the lemniscate, or infinity symbol, in a dialogue that ran last year in *Esopus* magazine. "I think I like the fact that there's this natural structure that looks so unnatural."

She moves over to a far wall and shows me a new pair of "Thread Drawings," which she's been making since 2008. Composed of thousands of tiny pins wound with cotton string, their torqued shapes evoke the fluid motion of a plastic grocery bag riding a gentle breeze. The "Thread Drawings," like her Wave Equation curtains of beaded wire, exemplify a strain of repetitious, crafted works that can seem at odds with her hard-edged sculptures, such as the "Transitional Objects"-freestanding puzzlesculptures produced entirely with digital technology-that she began in 2010. But Shotz doesn't make a distinction. "There's a polished quality even in my handmade stuff," she notes. Some critics have proposed a feminist reading of her work, seeing in its tendency toward more delicate materials and translucency an opposition to the kind of monumental art exemplified by Richard Serra's "Torqued Ellipses." Shotz shrugs off the idea. "I don't view my work in gendered terms," she says. "I do sometimes consider the integration of 'masculine' and 'feminine,' but I think of them as concepts and not qualities that are limited to one or another sex." Likewise, she adds, "Nature and technology are interconnected. We are nature and we have created technology. Maybe technology is natural as well. In any case, there is something very interesting that happens in the liminal space between the two."

Shotz is satisfied if her work can blur such binaries for the viewer. "Changing perceptions is one of the primary goals of being an artist," she says. But it's even better if her own hypotheses are disproved. "If I make a sculpture that surprises me, I'm very happy." \boxplus