

James Turrell's Light Fantastic

The innovative artist is transforming a crater in the Arizona desert into a monument of light

by Paul Trachtman, © 2004

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Standing on the rim of an ancient volcanic crater in northern Arizona, with the Painted Desert as a spectacular backdrop, James Turrell surveys all he has wrought. For a quarter of a century, this 60-year-old artist has been transforming the crater into an immense naked-eye observatory. It is a modern counterpart of sites such as Newgrange in Ireland and Abu Simbel in Egypt, where earlier civilizations watched celestial events with both curiosity and awe.

Not many people have yet seen the temple of light he has built here, and most of it is not visible from above, for it consists of a complex of chambers and tunnels extending deep below the surface. Two circular structures stand like stone eyes in the huge bowl of the crater. Through these eyes, Turrell explains, he is bringing the sky down into the earth, where underground visitors will experience it in a new way.

For Turrell, “bringing the sky down” is not just a poetic turn of phrase. He is intrigued by human perception, and studied perceptual psychology before turning to art. Ordinarily, he says, we take for granted that the sky is something “up there.” But from inside the crater the sky will drop down—not because he’s done anything to the sky, but because he has changed the context for viewing it. Some of the spaces are precisely, mathematically oriented to capture rare celestial events, while others are shaped and lit to make everyday sunsets and sunrises look extraordinary. What Turrell has wrought is, indeed, a monumental sculpture that combines ancient principles of archaeoastronomy with modern insights from the labs of perceptual psychologists. There is nothing like it on the face of the earth.

Even before descending from the crater’s rim, it’s hard to remember that we’re only about 40 miles northeast of Flagstaff and civilization. Roden Crater, as it’s called, is a mile in diameter at its base on the desert floor and rises 700 feet to its rim. It is only one of many such cone-shaped craters in the middle of a 1,800-square-mile volcanic field. Turrell first saw it from the air nearly 30 years ago while piloting his own plane, looking for a place to make art out of light. It stood in the outback of a ranch that wasn’t for sale, and Turrell had no money to buy it even if it were, but these were mere details to a visionary artist arriving from the sky.

Tall, white-haired and full-bearded, Turrell today looks a bit like an Old Testament prophet. And he’s probably sometimes felt like one in the decades it has taken to build this monument in the desert. After convincing the owner to sell him the ranch in 1977 and scraping up enough for a down payment, he has had to excavate and move 1.35 million cubic yards of dirt, install 660 tons of steel and pour 5,500 cubic yards of concrete, mixed on-site from volcanic cinder and rock. He’s also had to turn himself into a cattle rancher, not only to help realize the project but also to hold on to grazing leases around the crater so that others could not build houses and add artificial light to the night sky. Besides all this, he’s had to work with astronomers and archaeoastronomers in planning the observation of celestial events for thousands of years in the future, and he’s

had to move heaven and earth to raise the money from foundations to pay for it all—\$10 million to date. Eventually the site will be maintained by the Dia Foundation. When asked how soon Roden Crater will be open to the public, Turrell tugs his beard and mumbles, “A few more years, just a few more years.”

While working on the crater, Turrell has also been creating art out of light in museums and galleries—projecting and mixing colored light to make seemingly solid objects appear to be hung from walls or suspended in air. In a typical installation called *Gard Blue* (p. 93), you enter a dark room and see a 5 1/2-foot-tall blue tetrahedron standing brightly in one corner. It looks as though it’s made of plastic and lit from within. Only when you come close do you see that the “object” is actually pure light, projected across the room from a corner of the ceiling. Stepping into another installation, called *Danaë*, you see a large purple rectangular panel, glowing like illuminated Sheetrock, hanging in front of a white wall at the far end of the room—but if you try to touch it, there’s nothing there, only a rectangular hole cut into the wall with hidden ultraviolet lights on the other side.

A pioneer in what is now called installation art, Turrell caused a sensation when the Whitney Museum of American Art in New York City gave him a show in 1980 and a guest at the opening tried to lean against one of his “sculptures” and fell through it, breaking her wrist. A stunning retrospective of Turrell’s work is on view through the end of June at the Mattress Factory in Pittsburgh, a museum that has grown up with installation art, and which featured Turrell’s work in one of its first shows 20 years ago.

Barbara Luderowski, the Mattress Factory’s director, and curator Michael Olijnyk were among Turrell’s early supporters. “In those days it was tough to find places that would let an artist put nails in the floor or rewire a room,” says Luderowski. “When we did that first show, Turrell was an artist’s artist. Since then he has had a profound effect on younger artists and will have even more of one because he’s becoming more visible.” Light has always been the subject of art, says Turrell, who recalls his Quaker grandmother telling him, “Go inside and greet the light.” Paintings, he says, whether Rembrandt’s somber interiors or Rothko’s abstract color-fields, are a kind of journal of how an artist sees light. But his own work is not about light in this way; it simply is light. “I want to put you directly in front of light, so you see it with your own eyes, not through my eyes,” he says. The results can be sublime. “Turrell’s work comes as close to spiritual as anything I’ve ever seen,” says Luderowski. “And it’s an aspect of art that has not been much in evidence in our culture in our times.”

What the crater and the museum installations have in common is Turrell’s ability to show us something we rarely see: light as a physical presence, a material in its own right, not just something that illuminates the rest of the world. Turrell first had this idea in an art class at Pomona College, watching slides of paintings projected onto a screen. He found the light beam dancing in the darkness more fascinating than the pictures. “I realized I was more interested in the light than in the art,” he says. In a sense, he has spent the rest of his life exploring that epiphany.

“I like to use light as a material,” he explains, “but my medium is really perception. I want you to sense yourself sensing. To see yourself seeing. To be aware of how you are forming the reality you see.” He points to the bowl of Roden Crater, which looks as natural as it is ancient. “We moved more than a million cubic yards of cinder, and it looks almost the same,” he says with a smile. But it was painstakingly shaped and reshaped, as was the rim he and I are now standing on, until it created the right framework for seeing the sky as a celestial vault or dome, as in some medieval and early Renaissance paintings, rather than as a flat expanse.

On the rim of the crater, sunset is approaching. We climb down into the bowl, enter a tunnel and descend through darkness into a large white circular chamber; the

walls appear to slope inward to the ceiling, a flat white disk with a circular opening at the center. This underground room is called the Crater's Eye, and we are looking up through it into the fading daylight of a desert sky. A stone bench runs around the perimeter of the room so one can lean back and stare upward. And wait.

"All the work I do has a strange sense of time," Turrell says as we sit there. "Often you have to wait for an effect to develop." The room we are in looks like a kiva, the kind of underground circular chamber used for religious ceremonies at Chaco Canyon, the 1,000-year-old Anasazi pueblo ruin in a desert to the east, and still used by the Hopi and other Pueblo Indians today. Yet Turrell has given this ancient design a space-age update. The smooth, polished sandstone and white plaster, and the pure geometry enclosing us, make me feel as if I'm inside some cosmic egg, the sort of space familiar from sci-fi movies.

As we wait, the pale blue sky outside is still a little brighter than the room, which is dimly lit by a hidden ring of neon tubes set into the wall above us. Over the next half hour, time seems to speed up as the sky runs through an almost indescribable palette of distilled blues and reds, azure melting into turquoise into violet into purple, and darkening to a midnight blue that soon turns solidly, impenetrably black. Strangely, as the colors deepen, the sky seems to drop down onto the crater. It loses its ordinary sense of being somewhere "up there," and ends up "down here," sitting like an obsidian slab on the ceiling of the room.

Turrell has not said anything during this spectacle, but now he tells me to go back up through the tunnel into the bowl of the crater outside and look at the sky. It is the glowing twilight blue of lapis lazuli, still perfectly sky-high, nothing like the black "slab" hovering over the Crater's Eye. When I rejoin him, he's grinning like a magician ready to take his bow, but there's no magic here. It's not even an illusion, he says. The sky inside is just as real as the sky outside. It all depends on how we see it. What Turrell has done inside the room is to balance the inside lighting with the light of the sunset sky in a way that alters our perception of it. "We're not very aware of how we create reality," he says. "My work is just a gentle reminder that we're making this world, that we shape it, literally, we color it, literally. We give the sky its color; it isn't something that is just received." As I drive with him across the desert later that night, he promises to take me deeper into the crater in the morning, through an immense tunnel that is part of a naked-eye observatory that he says will serve for millennia to come.

Heading back to the crater by daylight, however, Turrell turns from artist into rancher as he spots a pair of dusty cowboys driving a small herd of cattle toward us along the rutted, red-dirt road. He brakes the pickup, waiting for his ranch foreman and a young hand to ride up. Turrell has been away for more than a month, working on a project in Japan. "This has been a hard year for getting the art done," he says to the foreman. "It's been a hard year for the cow deal, too," the cowboy replies from a sand-colored quarter horse, smiling through a sand-colored mustache as he surveys a grassland without much grass. For a few minutes, the man who contemplates celestial events thousands of years in the future talks about drought, coyotes and falling cattle prices.

"I don't know if it's harder to make a living as an artist or a rancher," Turrell tells me as the pickup climbs the road around the crater's outer slope. His inspiration for the project, he says, is ancient archaeological sites, including the early naked-eye observatories built by the 16th-century astronomer Tycho Brahe in Denmark. "These are special places," he says, "antecedents for how we've looked at the sky before, how we've entered the sky."

Partway up to the rim Turrell parks the truck near a gaping hole in the side of the crater, the mouth of a steel-and-concrete tunnel that goes through its depths and ends up in its bowl, which is higher than the place we are standing now. We enter the tunnel and step

into a round antechamber that awaits the installation of a 17-foot-tall slab of white marble. At summer solstice sunrises and certain lunar events, says Turrell, full images of the sun and moon will be projected onto the slab's white surface. Turrell conjures up a 10-foot image of the moon projected 120 feet underground. "I want this celestial object to enter your territory, to be part of your physical space," he says. "And in the tunnel, I want you to have the feeling of going up into the sky."

At first, walking uphill through the tunnel, which is nearly as long as three football fields, the sky appears as a small circle of light that grows larger as you get closer to it. Orienting it precisely to align with celestial events took years of calculations, made by retired U.S. Naval Observatory astronomer Dick Walker, with input from archaeoastronomer Ed Krupp, director of Los Angeles' Griffith Observatory, and other scientists and engineers recruited for the project.

It's easy to think of this passage toward the light, as Turrell does, in metaphorical terms. It seems like the kind of tunnel often described in near-death experiences, or the sort of hole in the earth from which the first people emerged into light in the origin myths of the Hopi and other indigenous peoples. As you near the end of the tunnel, however, you forget about myths. With every step, you see the shape of the opening changing from a circle into an ellipse. It's a bizarre sight. But it's just simple geometry, Turrell says reassuringly. An ellipse seen at a certain angle will appear as a circle. "It's one thing to know the math," he says, "but I want you to feel the shape change as a real, physical experience." It's an unforgettable feeling. Finally, at the tunnel's end we step into the dazzling white chamber of the East Portal and look up at the sky through the 10-by-29-foot ellipse that is now overhead, with a sleek bronze stairway inviting us to ascend. The white walls of the chamber, the height of the stairs (with no handrails) and the bright light of the sky are disorienting as we climb upward into the base of the crater's bowl. It's like climbing through a cigar-shaped UFO and stepping into the sky.

When people ask Turrell how much the crater has cost, he replies, "A couple of wives and several relationships." Twice divorced, he has six children, three of them grown and living nearby in Flagstaff, and the younger three living with their mother on the East Coast. He lives in a modest ranch house about 30 miles from the crater with his partner, Korean-born artist Kyung-Lim Lee, 45, who often puts down her own paintbrush to feed the livestock or answer the studio phone when Turrell is away. And he admits that he never dreamed that Roden Crater would become a life's work.

Born in Los Angeles in 1943, Turrell grew up not far from Hollywood, the city of illusion—"Maybe that's why I'm so interested in perception," he says with a laugh. He was a math whiz before showing any artistic talent. When he did turn to art, he supported himself by flying small crop-dusting and mail planes over Southern California, and by restoring antique cars and vintage airplanes. In 1966, as a young artist in Ocean Park, California, where older painters Richard Diebenkorn and Sam Francis had studios a block away, Turrell rented the two-story Mendota Hotel, where he covered all the windows and painted the walls, floors and ceilings white. This was his studio, and his art consisted of letting small amounts and shapes of light into interior spaces, finding ways to show what he calls "the thingness of light."

At the time, other California artists, among them Robert Irwin, Larry Bell and Bruce Nauman, were also working with the effects of light on various materials. Irwin became a friend and in 1984 shared with Turrell the first MacArthur "genius" award ever given to visual artists. "Bob Irwin was using light to dematerialize objects, to make them appear less solid," Turrell says. "And I was trying to materialize light as an object." Also around that time, artists on both coasts were inventing what came to be called Land Art, with massive works such as Michael Heizer's Double Negative, two trenches cut into a

Nevada canyon wall, Robert Smithson's Spiral Jetty earthwork in Utah, and Walter De Maria's 400-acre grid of lightning rods in New Mexico. And though Roden Crater is often described as Land Art, Turrell feels his antecedents are the ancient architects who built structures that brought light in from outside to create an event inside. "That's what I was doing at the Mendota Hotel," he says. "That was also done at Abu Simbel, and that's what I'm doing at Roden Crater."

When Turrell is not working on the crater, he tries to keep up with an ever-increasing demand for his installations from collectors, museums and galleries. He recently worked on a permanent "Skyspace" similar to the Crater's Eye in a Quaker meetinghouse in Houston (he says he's a lapsed Quaker recently returned to the fold) and another in Seattle at the Henry Art Gallery (opening in July), and he has turned entire office towers into light installations in Europe and Japan.

In his show at Pittsburgh's Mattress Factory, his works reflect the influence of perceptual psychology. Psychologists have put subjects in sensory deprivation chambers, intense light boxes and other strange environments to probe the nature and limits of perception. Turrell's installations sometimes seem like such experiments masquerading as art, but the ingenuity of their design is obscured by their beauty and simplicity. "Whatever work it may take to get there doesn't matter," he says. "I want you to see the swan as it glides across the lake, not the fact that underneath it's paddling like hell."

The most spectacular Pittsburgh installation is a 12-foot-high sphere called Gasworks. It looks something like an MRI diagnostic machine, and you lie flat on your back on a gurney while a white-coated attendant slides you into the sphere. Once inside, you feel suspended in pure color, which keeps changing, as if the light itself is holding you up and you're floating through a rainbow. With nothing to focus on, it gets hard to tell if you're seeing a color or imagining it. When you close your eyes, the afterimages are so intense that your eyes still seem to be open. Suddenly bursts of flashing strobe lights generate astonishing geometric patterns. Then serenity returns as you are enveloped once more in luminous fields of pure color, pulsing slowly brighter and darker until you feel the light like a massage, pressing down and releasing you into Turrell's strange cosmos. The voice of the attendant seems otherworldly when you hear him, as though in a dream, saying, "We're going to pull you out now."

On my last day at the crater, Turrell asks if I'd like to see it from the air. I nod enthusiastically, and soon we are pushing a 1939 single-engine, two-seat Scout out of a hangar. It seems light as a feather, with a skin of sky-blue cloth sewn over a metal frame. "Don't put your hand through the sides," he warns as I climb in.

In the air, as he searches for stray cattle, Turrell appears totally at home. The plane sweeps over the desert landscape and flies low over the curving Little Colorado River. We soar back up over the canyon rim and bank hard, heading straight for Roden Crater. At a distance, the cone of red cinders looks its age, about 400,000 years. Only as we dip down and fly over it do I see its two circular stonework "eyes." "It's a beautiful geologic structure," says Turrell, "and I want it to look as untouched as possible when I'm done."

Then he tells me about the work crew who couldn't understand why they had to keep picking up cinders from one place, only to put them down in another as he tried to even out the crater's bowl and rim. "'Why?' they kept asking. 'We're shaping the crater,' I told them. 'Actually, we're shaping the sky.'"