



**MAPPED OUT**  
“I don’t want people to come here, see it once, and then you’ve checked it off your bucket list and can forget it,” says James Turrell, surrounded by Roden Crater blueprints, “so you have to have an ongoing program.”

# ON THE GRID

James Turrell has dedicated half his life to creating a massive—yet largely unseen—work of art in the desert. After more than four decades, the artist reveals a new master plan to the public.

BY JAY CHESHES PHOTOGRAPHY BY ALEC SOTH

ON A CLOUDLESS AFTERNOON in late September, the artist James Turrell rounds the crest of a hill just below Arizona’s Sunset Crater Volcano, a national monument, slowing his gray Jeep Cherokee under its cinder cone. Black shards of ancient lava are shingled across the landscape like carbonized roof tiles. “I’ll show you how I first saw Roden Crater,” he says, looking to the horizon and recalling the moment in 1974 that would shape his artistic career for the next 45 years.

“It was November, right before Thanksgiving,” he says. Turrell, an expert pilot, had spent months by then tearing through a \$10,000 Guggenheim grant—soaring over the landscape in his 1967 Helio Courier H295, eyeing every butte and extinct volcano west of the Rockies, searching for the perfect site on which to build a monumental work of art.

“It was the end of the day,” he recalls, “and I was getting ready to hang it all up.”

And that’s when he saw it. “There’s a tree right in front of us,” he says. “That tree where the rock is—that’s where Roden Crater will come up. There it is. See it?”

As we drive on, a gently curving slope emerges from a barren stretch of scrub brush in the distance, its soil fading black into red as it reaches a concave plateau. “So, it’s out there by itself,” he continues, “one of the few beautifully two-tone volcanoes without too much growth on it. That looks pretty terrific, I thought. I went and landed right out below it and then hiked up in it, then spent the night in it, in a sleeping bag.”

Turrell, 75, has spent more than half his life sculpting the inside and outside of the 2.5-mile-wide 380,000-year-old shell of a volcano he first spied that day in 1974. He has shaped the rim to frame the sky and carved tunnels and chambers that let the cosmos in, working with astronomers to harness light from the sun, moon, stars and planets. His vast work-in-progress is inspired by archaeological sites like the Mayan pyramids in Mexico and Central America.

Now, after more than four decades, Turrell’s massive project finally has a finish line. A new partnership with Arizona State University promises to bring his revised master plan to completion in the next five years, building a sprawling creative and scientific community around the crater in the process, with the ASU Foundation and Skystone Foundation (the crater’s nonprofit umbrella) working together to raise the \$200 million or so still needed.

Turrell, a pioneer in manipulating natural and electric light as a medium, is one of the seminal figures of Southern California’s Light and Space movement. A gregarious, voracious intellectual with an unruly white beard and wide-ranging interests in art and science, he’s best known for his projection work—interior spaces filled with light that appears to inhabit physical form—and his “Skyspaces,” mixing natural and electric light to alter one’s perceptions of the earth’s atmosphere while creating places for quiet meditation. Six years ago, his work achieved broad attention with shows simultaneously at New York’s Guggenheim Museum, Houston’s Museum of Fine Arts and the Los Angeles County Museum of Art (LACMA). The exhibitions also brought renewed attention to his mythic, and largely unseen, masterpiece in the desert. “[To me], an art historian interested in ancient art and modern art, it’s an amazing vision,” says LACMA’s CEO and director, Michael Govan, who visited the crater for the first time almost 25 years ago. “It relates to the whole history of art, not just art of the last decades.”

But while its neighbor, Sunset Crater Volcano, gets over 100,000 tourists a year, most of them en route to the Grand Canyon 70 miles due north, few visitors to the area have any idea one of the most ambitious works ever attempted by a single artist has been hiding in plain sight. Not many people have seen the place up close in the many years since Turrell first acquired Roden Crater (named for an early owner) in the late ’70s. Visitors have included mostly art world insiders, who’ve supported the project with donations and



exhibitions. A few interlopers, though, have made it inside. “We had a group come in after Burning Man, about 12 years ago, and they graffitied the tunnel,” recalls Turrell. “And a couple of women came in, totally nude.”

Soon enough, curiosity seekers won’t need to sneak by security. After many missed deadlines, an opening day is finally in sight. “I was so naive when I started,” says Turrell. “Embarrassing to think about it. But if you really knew what it would take to do some of these things, you probably would never start on them.”

Following a long hiatus, across almost a good decade of fundraising struggles that began during the last recession, work at the crater kicked into high gear three years ago, with major new backers and partners and a new master plan all clicking into place at once.

The American West is covered in monumental works by artists of Turrell’s generation, a group of remarkably single-minded obsessives. Some, like Michael Heizer’s mile-and-a-half-long *City* in the Nevada desert, have been in progress longer than Turrell’s Roden Crater, struggling with funding and upkeep. Even the late Donald Judd’s West Texas art complex at Marfa is often strapped for cash. “They have to raise their budget every year,” says Turrell.

To avoid a similar uncertain fate, Turrell has lined up long-term stewards for his life’s work and the 100 square miles or so of ranchland he controls as a buffer around it, partnering with ASU and LACMA (which has been involved with the crater for years) to ensure the project lives on. “There are difficulties in fundraising when you have no answer to what happens when I’m gone,” he says. With a \$2 million initial planning grant, ASU spent much of 2018 formulating a long-range strategy for the site.

New urgency arrived when Turrell had a health scare in June, a heart attack right before a major exhibition opened at the Museum Frieder Burda in Baden-Baden, Germany. After the press conference announcing the show, Turrell walked out of the museum, he says, and it was “like Mike Tyson hitting me right in the chest.” The hospital was just four minutes away. “So they’re operating on me 12 minutes

after the heart attack,” he recalls. “If I’d had it here [in Arizona], I never would have made it.”

The ASU Foundation is already working to raise the funds to get construction done, while the university is developing a broad academic program that will offer crater access to students and faculty beginning this spring. “James would be the first to tell you he isn’t immortal,” says ASU president Michael Crow. “We began talking some time ago about how we could become involved intellectually, pedagogically, and then that led to other discussions about how we might be able to then sustain the project for the next hundreds of years.”

With the new infrastructure, Turrell has already sketched plans for welcoming the wider public, imagining a museum and orientation facility, lodges to rent along the crater rim, even a restaurant serving food from cookbook author Deborah Madison. Turrell, who splits his time between a home on the eastern shore of Maryland and a modest ranch house 13 miles from the crater, is sticking around Arizona more these days, newly energized to push his project toward completion. The first major addition in ages, the new \$13 million South Space, is expected to finish this spring. The space, which includes an enormous domed instrument for tracking celestial bodies, is modeled on the Jai Prakash Yantra timepiece at Jantar Mantar in Jaipur, India.

The revised master plan includes many more spaces, most 3-D modeled and priced for donors. A series of water-filled chambers are coming, fed by underground wells. One 8-foot-deep pool will reflect every sunrise. In a light-spa complex, bathers will dive under a barrier, emerging outdoors looking out across the horizon. In the fumarole, the volcano’s secondary vent, Turrell imagines a brass bath where transducers hooked to a radio telescope will broadcast the sounds of passing planets and the Milky Way underwater. In another space a visitor will sometimes be able to see his or her shadow with the light of Venus. An amphitheater is on the drawing boards too, as well as a wine cellar.

Out on his ranchland, Turrell envisions at least 10 artist residency homes dotting the landscape, each designed by a different architect. These will be the foundation for a creative retreat along the lines of Yaddo or the MacDowell Colony or Skowhegan, where Turrell spent a few weeks in the 1970s. On a ledge overlooking the crater he hopes to install facilities for ASU. “I don’t want people to come here, see it once, and then you’ve checked it off your bucket list and can forget it,” says Turrell, “so you have to have an ongoing program.”

Turrell has put almost his entire artistic career in the service of this single monumental project, funneling proceeds from other work and testing concepts around the world that are ultimately destined for the crater. “I often do pieces at museums that I’m trying out to see

how that will work out here,” he says. In 1991, he built his first bathing piece, *Heavy Water*, light-filled pools in France accompanied by swimwear he designed. His first amphitheater debuted in the Yucatán in 2012 with an opening performance by Philip Glass. Turrell, who likes to guide visitors to Roden Crater himself, has often struggled to explain the experience. “It’s indescribable, completely immersive, designed in a way so every single piece of it engages your perception,” says Steven Tepper, dean of ASU’s Herberger Institute for Design and the Arts.

It might be the altitude—Roden Crater begins around 5,000 feet above sea level—but my head’s already spinning as I follow Turrell through the entrance one evening into the Sun | Moon Chamber. A black stone monolith with a circle of white marble in its center rises from a base of volcanic black silica. Low lights line the edges of the black-clad Alpha (East) Tunnel stretching up about 900 feet toward what looks like a bright orb. “As you walk up, pay attention to the sound of your voice,” instructs Turrell. An enormous lens, built by the University of Arizona’s Mirror Lab and the McDonald Observatory in Texas, is hidden in a recess halfway up the tunnel. It’s occasionally deployed to focus sunsets, moonsets and other celestial events onto the marble “image stone,” transforming the tunnel into a refractor telescope.

Working with astronomers Larry Wasserman and the late Richard Walker, Turrell integrated precise long-range calculations into his tunnel and chamber designs. The northernmost and southernmost moons, for example, alternately hit the image stone every 9.3 years (a phenomenon known as a major lunar standstill). The tunnel, meanwhile, will be most precisely aligned with the moon in 2,000 years.

Reaching the tunnel’s midpoint, my voice goes flat, as Turrell said it would. He worked with an acoustician so that the crater is a finely honed audio and visual instrument. As we approach the East Portal at the end of the tunnel, the orb of bright sky transforms from circle to ellipse as I enter the space. A set of golden stairs with no railings rises up into the light.

Farther in, an enormous Skyspace frames the eye of the crater. Turrell has been making variations on this same theme since the early 1970s, when he started cutting holes in the walls and roof of his studio at the Mendota Hotel in Santa Monica, California, turning the sky itself into a work of art. He has since produced dozens of Skyspaces around the world, nearly 100 of them in 21 states and 29 countries. Though many are private collector commissions, just as many are publicly accessible, purchased by museums and universities. Late this past summer, he opened a ski-in Skyspace in the Austrian Alps for a local arts association. The Crater’s Eye, among his largest Skyspaces, is an acoustic marvel.

Our tour concludes outside at sunset, in the Crater Bowl, where four stone plinths encircle the Crater’s Eye. I lie down on one, as Turrell instructs, the blood rushing to my head as it rests on a stone pillow, angled below my feet. From my upside-down vantage point, the sky seems to fish-eye, curved up from the earth, offering a 360-degree view of the horizon, across the Painted Desert, the Grand Canyon’s rim in the distance as day fades into night. To achieve this visual effect, Turrell moved more than a million

cubic yards of dirt and stone from the bowl, bringing an experience that pilots know from flying down to earth: a “phenomenon where we perceive the sky as a closely fitted vault covering us from horizon to horizon rather than a limitless void extending into space,” as Turrell has described it.

To understand aviation is to have a deeper grasp of Turrell and his work. Early on he supported his art with crop-dusting, delivering airmail and restoring old planes, a hobby he still enjoys.

And Turrell’s work at the crater has been as much about keeping out light as bringing it in. He lobbied the county to pass an extra-stringent dark skies ordinance that includes a ban on large signage. “Now you see why I wanted to have no lights,” he says, standing on the edge of the rim, night rising in the distance, the sky striped shades of black and blue.

To secure land around the crater nearly as far as the eye can see, Turrell raised funds by selling prints, drawings, models and other works of art. “We’re definitely not in the moneymaking business; we’re in the money-spending business in Turrell world,” says his longtime gallerist Marc Glimcher of Pace in New York. Turrell has been buying plots 10 to 40 acres at a time, amassing a buffer against development, snapping up fallow tracts from investors who were duped in a big land fraud in the 1950s. Two years ago he sold his apartment in New York’s Gramercy Park, using the proceeds to buy an additional 16,000 acres, which he closed on this fall. This new land grab will extend the cattle-ranching operation that also helps keep Roden Crater going. Turrell’s Walking Cane Ranch supplies prime steaks to purveyors of top restaurants like Keens Steakhouse in New York.

The seeds of the crater project go back to the beginning of Turrell’s artistic career, to the early ’60s when, as a conscientious objector, he flew reconnaissance missions over Southeast Asia for the CIA’s Civil Air Transport unit, soaring over the temple compounds of Borobudur and Angkor Wat. (It’s a period he prefers not to talk much about.) Those ancient sites, and others he later visited in Mexico, India and the British Isles, formed the basis for the big project he dreamed of when he took to the skies fueled by that \$10,000 Guggenheim grant, which Turrell used specifically for the crater hunt (most of it was spent on airplane fuel and lodging).

Three years after he found Roden Crater, he convinced the rancher who owned it to sell. Funding for the first work there came from art patron Patrick Lannan’s foundation, from Italian Count Giuseppe Panza di Biumo (another early Turrell supporter) and from the newly emerging Dia Art Foundation. The crater’s ambient-lit chambers are all building on concepts he first developed as a young artist carving up the old Mendota Hotel, which he moved into in 1966 after graduating from Pomona College with a degree in perceptual psychology. He initially paid \$125 a month for the former restaurant and pharmacy spaces on the ground floor. He eventually took over most of the building, slicing holes in the walls and ceiling, turning much of the structure into an immersive art installation. “That was the kind of work I’m doing at the crater, where things from the outside come in and make a piece,” he recalls. “There I did it with the urban landscape of light at night. That was an important

place for me, where I really did a lot of the things that sort of fueled the tank for quite a while.”

He left the Mendota to begin his search for the crater after developers bought the hotel in 1974.

Turrell’s first marriage, to a harpist, dissolved a few years later, and in the early ’80s, he moved full time to the crater. (He’s now married to artist Kyung-Lim Lee Turrell and has six grown kids from previous relationships.) For two years he lived in isolation in an octagon-shaped house on the fumarole there. “That’s when I got most of the ideas and designs of it done,” he says. By 1983 the initial master plans were complete.

Turrell spent the first decade consolidating control over the land around the site. Work on the tunnels and chambers wouldn’t begin until the 1990s. The plans have become much more elaborate as the decades have dragged on. “The lesson here is, Get the money to an artist soon,” says Turrell. “If you wait it gets more involved, and it gets more expensive.”

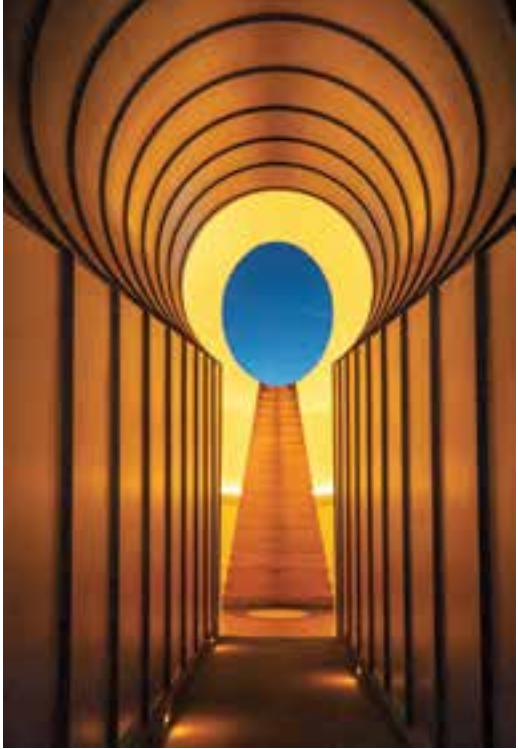
Even with Roden Crater consuming so much time and mental energy, Turrell’s other work hasn’t slowed. Demand has increased, in fact, as whispered news of his close call circulates. After the heart attack, Turrell says, “many people who were perhaps thinking of getting my work or doing something are now calling up and demanding to get it.”

While he discusses new commissions at his ranch house, a call comes in from a prospective client representing a museum in Vermont. “What would you like to do?” Turrell asks. “Have you seen any of the outdoor works? I think the best is to go see some things, and then come visit me here.” Turrell gets a steady stream of inquiries like this. Most never lead to anything. “I would say there are 100 requests to every one that can really be done,” says Glimcher.

Turrell’s current pipeline includes an architectural installation at Denmark’s ARoS Aarhus Kunstmuseum as well as four new Skyspaces in Mexico and another in a public park for the Philadelphia Museum of Art. More Skyspaces are planned for the addition to the Fondation Beyeler in Basel, Switzerland, and in four new buildings underway from architects Herzog & de Meuron.

And Mass MoCA, the Massachusetts museum that opened a semipermanent Turrell retrospective in 2017, will soon welcome two more major works, a Skyspace in an industrial water tank and a massive topographical model of Roden Crater showing the planned work to come. “Unless you’re at the crater, it’s so difficult to get your mind around the scale and how it works,” says Mass MoCA director Joseph Thompson. “I know [James has] been frustrated by that.”

Turrell, who was raised conservative Quaker in Pasadena, California, is also reviving his Lapsed Quaker Ware, a line of black basalt dishware he introduced in the 1990s. An expanded collection, produced in partnership with Irish potter Nicholas Mosse, debuted at the FOG Design+Art fair in San Francisco this winter. Turrell and Mosse have also partnered with an Irish distillery to produce their own Lapsed Quaker whiskey and gin—although it will be a while still before those are ready to drink. Turrell is also working on a collaboration with crystal maker Lalique that will include the artist’s own cologne and perfume, which will be produced by the company using wild purple sage from his ranch.



**SKY HIGH** “Every single piece of it engages your perception,” says ASU’s Steven Tepper of the crater; above, the East Portal (2018).

“He’s Santa Claus with a bag of aesthetic experiences for all the girls and boys,” says Glimcher.

For Turrell, though, Roden Crater remains the reason for everything. With ASU and LACMA on board, that dream, long delayed, looks unlikely to end up one more incomplete artist’s folly. The university plans to fully integrate the project into its academic DNA, beginning with a pilot program this spring involving its art and design school along with new schools of sustainability, earth and space exploration and social transformation. “That crater, that project, touches on almost every discipline at the university,” says Tepper. “We see it as an extraordinary learning object that we’re prepared to build hundreds of learning opportunities around.”

Five interdisciplinary field labs will debut this spring, interacting with the crater and partly working out of a new building in nearby Flagstaff that will house Turrell’s Roden Crater archive, studio and model shop. And Govan, who is also chairman of the Skystone Foundation board, is developing an online course with Turrell that will be accessible to the wider world through ASU’s EdPlus online degree platform.

“Part of the inspiration for Roden Crater was the Space Age of the ’60s and James’s delightfully perverse notion that one could bring the cosmos to earth,” says Govan. “So there’s a beautiful poetry in thinking about Roden Crater as being able to inspire scientists to think differently about the cosmos.”

But Turrell’s monument to light, his lifelong obsession, is also a monument to life. “Light itself is amazing,” he says. “There is this strange truth in light, and I’ve been very interested in that. And we have a very amazing relationship to it. We drink light through the skin and create vitamin D. Light is actually food.” ●



**VIEW FROM THE TOP** “That looks pretty terrific, I thought,” recalls Turrell of first seeing the Roden Crater (pictured above in 1973). “I landed right out below it and then hiked up in it, then spent the night in it, in a sleeping bag.”

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