



RODEN CRATER

Within a dormant volcano on the Arizona plains, a radical art experiment is being constructed. For forty years, artist James Turrell has been building his “naked-eye observatory,” capturing light itself in a profound and immersive way that makes viewers reassess how – and what – they see. By Nat Trotman

Just north of Flagstaff, Arizona, hundreds of dormant volcanoes lie scattered across the arid plain in a pattern established over six million years of the earth's tectonic movements. Driving along the dirt roads that wind among these colossal shapes, you might pass herds of grazing cattle or the occasional homestead, but if you don't know where to look, you might miss Roden Crater. Neither the largest nor most dramatic example in the range, this cinder cone has nonetheless preoccupied artist James Turrell for 40 years, serving as site, subject, and medium of a project that, when complete, may turn out to be the most ambitious and complex artwork of the modern era. Turrell has sculpted the crater bowl and cut a series of chambers, tunnels, and apertures within the volcano, oriented around celestial events. He has transformed Roden Crater into a "naked-eye observatory," offering visitors a profoundly immersive encounter with the earth, the sky, and, most importantly, their own perception.

A native of southern California, Turrell launched his art career in the late 1960s, a time of political and cultural upheaval when artists across the country challenged established ideas of what an artwork should and could be. Rejecting the traditional, Turrell and his peers wanted to move away from the rarefied world of galleries and museums to a place of more direct social, psychological, and physical action. This led Turrell to create astonishingly spare works using nothing but light – a material so ubiquitous and essential yet impossible to touch or contain, much less buy or sell. "Light is a powerful substance," Turrell says. "We have a primal connection to it." But for something so powerful, situations where we can make its presence tangible are difficult to create. "I form it as much as the material allows," he says. "I make spaces that in some ways gather light or seem to hold it. My desire is to set up a situation to which I take you and let you see. It becomes your experience."

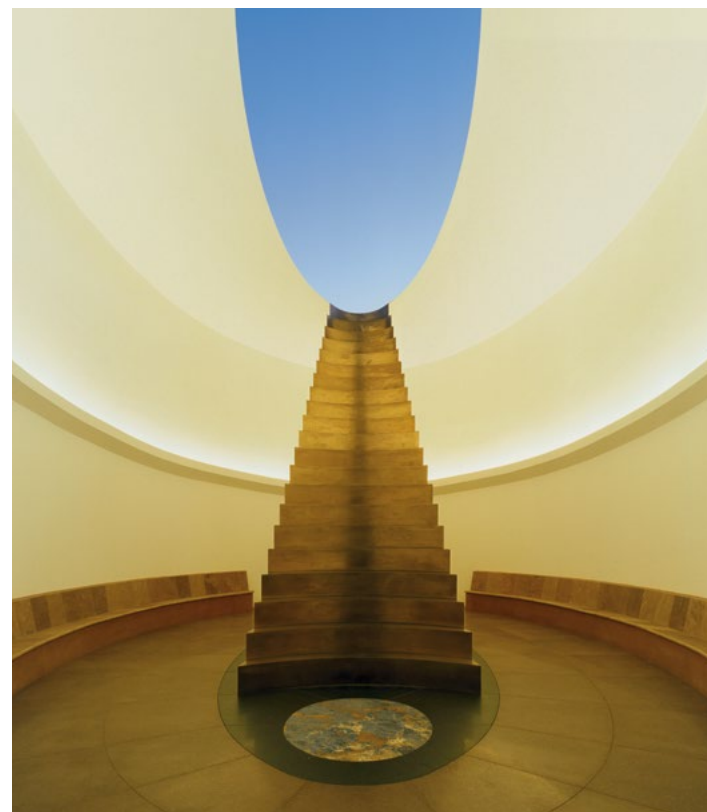
Working in the Santa Monica studio he then used, Turrell found that, when confronted with sharp, high-intensity illumination in a controlled environment, our bodies and minds interpret space in surprising ways. Entering one of his early installations, you might see a luminous, hovering cube, but look more closely and you'd discover only flat panels of light projected on the wall. Turrell doesn't consider such effects optical illusions – on the contrary, he says, "What you see only alludes to what in fact it really is." Overturning millennia of cultural training, his works push us to look beyond the things light illuminates and instead see the light itself. In this way, Turrell reminds us that our perceptions are not rational or objective but work in tandem with the world. With time, visitors to his pieces can start to deprogram long-held habits of vision and become aware of how their senses actually function. Turrell calls this condition "seeing yourself see."

At Roden Crater, Turrell plans to cultivate this state of reflexive sensing through 20 discrete installations, each offering visitors a deep connection to the universe beyond themselves. To date

Previous page: Roden Crater on the desert plain, seen from the southwest. Below: the Sun and Moon Space, deep inside the volcano. At each year's northernmost

sunrise, light enters through the Skyspace of the East Portal (bottom) and projects a majestic image of the sun onto a large marble stone. Opposite: the formidable

Crater's Eye, the primary viewing space. Sit on the long bench, look up, and find yourself transported by a vision – a radiant image, which is in fact the sky





six spaces have been completed, each differently positioned to incorporate light from the sun, moon, or stars. The primary space, called Crater's Eye, is the apotheosis of Turrell's well-known, and globally far-flung, Skyspace series: rooms with apertures cut through their ceilings, open to the sky. Seated on the long bench that lines the wall of this massive circular chamber, you look up, relax, and soon behold a magical vision: the opening, which you know consciously to be empty, closes over with a film of rich blue sky. As the sun sets, this depthless patch darkens so slowly you may not realize night has fallen until the space turns to deepest velvety black. Again, this experience is no illusion; Turrell simply creates the architectural conditions for newly observing reality. As he points out, "We do tend to perceive sky as always being *out there*, away from us. So although we're living at the bottom of an ocean of air, we don't feel immersed in it. These pieces allude to what is actually the fact – that we are bottom-dwellers living in this sea of air. You're in this volume, and at the top of this volume, the sky begins *right there*."

Turrell has fueled his fascination with the sky through years of experience as a pilot; the son of an aeronautical engineer, he has flown small planes since he was a teenager. Like all pilots, he has confronted moments of extreme disorientation in the sky, as well as visions of sublime beauty. He speaks about how, at certain altitudes, the earth's horizon seems to curve the wrong way, and how the sun can illuminate fields of airborne moisture so that the sky coalesces into planes of solid color. "My airplane is my studio," he says, and indeed it became just that when, in 1974, he lost his lease in Santa Monica and began to search for a new base of operations. Chafing at the restrictions imposed by his urban surroundings and ever more ambitious in his desire to link human perception to a wider environment, Turrell decided to move into the desert, where he could more directly connect his studio practice with the phenomena he had discovered while flying. Aided by a Guggenheim grant, he set off in his Helio Courier airplane in search of the site that would become his life's work.

Turrell flew for seven months before he found Roden Crater, canvassing the area west of the Rockies from Canada and Mexico. Lying on the edge of the Painted Desert, 50 miles from the closest town, Roden Crater stands six hundred feet high and features a nearly circular, concave bowl that blocks nearby light sources and offers the deepest possible engagement with the sky. Turrell negotiated for three years before he was able to buy the land, but by 1979 work at the site had begun. The first task was to move over 35 million cubic feet of soil in order to reshape the volcano's bowl into an even and perfectly level ellipse. Executed with a scale and precision typical of Turrell's projects, this adjustment intensifies the phenomenon known as celestial vaulting. Reclining in the center of the bowl and gazing up at its rim, you perceive the atmosphere as

Previous spread: the surreal Alpha Tunnel, an 850-foot-long ridged tube, facing from the East Portal toward the Sun and Moon Space (left); the East Portal under construction (right). Right: the Crater's Eye, from daytime (top) through sunset to night. Far right: artist James Turrell



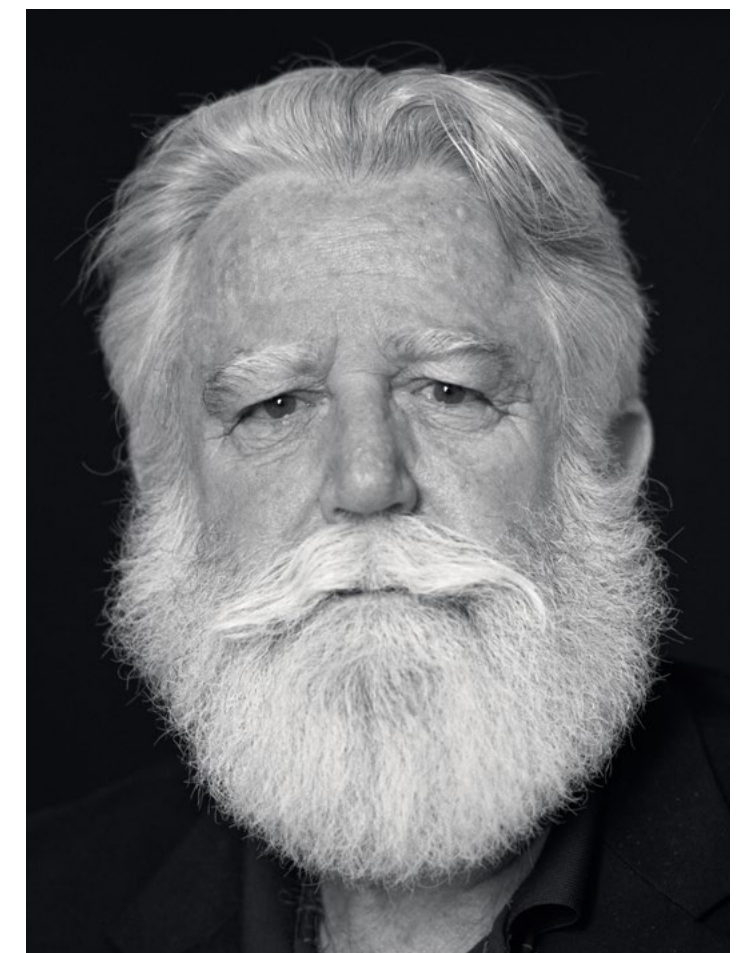
a dome arcing from one edge of the crater to another. No longer an infinite expanse, the sky becomes a personal matter.

On one side of the bowl, not far from Crater's Eye, is a second Skyspace named the East Portal. You approach this chamber by ascending the Alpha Tunnel, an 850-foot-long ridged tube through which, during daytime, you will see a perfect circle of sky straight ahead. Just before you reach the portal, however, the angle of the floor diminishes and, with each step, you watch that circle change shape, stretching to reveal itself as the long ellipse of the Skyspace. Here a staircase leads up through the aperture and into the crater's bowl; on a moonless night, you can exit the brightened chamber and watch millions of stars emerge out of the darkness. Turrell says that in rooms like this, he is making "spaces that protect light. They shelter and apprehend the light for our perception." For him, Roden Crater is a contemporary ritual site in the tradition of the kivas or ceremonial chambers of the nearby Hopi culture, the Stone Age passage tomb at Newgrange in Ireland, or the Egyptian pyramids. These awe-inspiring landmarks contain intimate interior spaces devised to align individual experience with the cosmos, often by carefully tracking celestial cycles. Similarly, at Roden Crater the light of each year's northernmost sunrise enters through the East Portal, shines down the Alpha Tunnel, and projects an image of the sun onto a large marble stone in the Sun and Moon Space, deep in the volcano's interior. Future plans call for another tunnel to project an image of the moon on the monolith's reverse side. Yet another space will feature a narrow shaft that isolates the North Star, allowing visitors to sense the rotation of the earth on its axis.

Despite the scale and complexity of his work at Roden Crater, Turrell's interventions are nearly invisible from the outside; even the rim modifications involved only a tiny percentage of the cone's entire volume. By placing the majority of his installations beneath the earth's surface, Turrell elevates the volcano's ancient form and history over his more recent, if astounding, feats of engineering. It is a "stage set of geologic time," and in it, he says, "I want to make spaces that engage celestial events in light – thereby making the 'music of the spheres' in light. These pieces are performed by the rotation of the earth and the motion of the planets, so that they will keep themselves performing long after I'm gone."

Given these ambitions, it is not surprising that, at the age of 71, Turrell has completed less than a third of the spaces he has planned here. With a public opening endlessly delayed, the project has achieved a mythical status and a reputation that the artist jokingly acknowledges with the catchphrase, "Sooner or later, Roden Crater." Turrell continues to fundraise, and he hopes to begin booking overnight visitors when the next phase of construction is completed. Until then, Roden Crater is open by invitation only. ♦ For more on this subject, see the exclusive content on Patek Philippe Magazine Extra at patek.com/owners

"I MAKE SPACES THAT IN SOME WAYS GATHER LIGHT OR SEEM TO HOLD IT. MY DESIRE IS TO SET UP A SITUATION TO WHICH I TAKE YOU AND LET YOU SEE. IT BECOMES YOUR EXPERIENCE"



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