

# What is observation? James Turrell's skyspace at PS1

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"You don't get to tell people how they should see something. It is only something you demonstrate. ... like what happens at PS1. If you look at some portions of New York sky you can have an amazingly beautiful part of the sky. [But] you don't notice that when you can see all the rest ... This is one of the things that happens in my work. I isolate something, often something that is actually occurring outside, whether a sunset or another light event, so you feel it heightened, even though it is less." (James Turrell interviewed by Ana Maria Torres, 18 April 2004.)

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I am a scientist. Each Fall and Spring, I take the dozen students in my Laboratory in Perception class to see Turrell's skyspace at PS1 in New York. It is our only field trip. We go to see Turrell's piece because it is the best way I know to teach observation.

It is an empty room with a large square hole cut out of the ceiling to expose the sky. The room has a bench for sitting all the way around, and has some interior lighting. That is all. We arrive half an hour before sunset and stay for an hour, leaving when night falls. I ask the students to bring a jacket, a wristwatch, and a notebook. And I ask them to write down anything they find remarkable in their notebooks, recording the time along with the observation. Sometimes I announce the moment of equiluminance, when the brightness of the sky matches that of the ceiling. Afterwards we go to a local restaurant and compare notes.

"If we define art as part of the realm of experience, we can assume that after a viewer looks at a piece he leaves with the art, because the 'art' has been experienced." (James Turrell, 21 January 1969, in *A Report of the Art and Technology Program of the Los Angeles County Museum of Art 1967-1971*. Los Angeles: LACMA.)

The goal of this class is for the students to learn what science is by doing it. For this purpose it is no good doing canned experiments, demonstrating what we already know. We must explore a topic that is not well understood, to formulate and answer new questions.

As I teach it, the first step in doing science is observation. This is seemingly the most passive step, yet I suspect it is the most creative. There is more to science than just observing, yet I think that it is the quality of the observation that most distinguishes the important discoveries. Nearly all scientific papers include data, and the data are generally measurements of the world, i.e. observations. However, there is a broader sense of "observation" that goes beyond recording to evaluating. Curiosity drives one to pay attention to one's world, and as one tries to make sense of it, causes one to linger on some particular feature that suddenly seems to stick out as odd, or beautiful, or strangely hard to explain.

"The most exciting phrase to hear in science, the one that heralds new discoveries, is not 'Eureka! I found it!' but rather 'Hmmm, that's funny.'" (Isaac Asimov, *The Eureka Phenomenon*, *The Magazine of Fantasy and Science Fiction*, June 1971.)

Before one has a specific question, one typically has a vague sense of an area of interest. The students are accustomed to copying important facts from blackboards into their notebooks. But most have no experience of wading through the masses of facts in any real situation to select one that deserves further attention. Many people have had the experience of taking a walk in the woods with a naturalist. As you learn the names and stories of the trees, you see more. An undifferentiated mass of trees — the forest — becomes a collection of individual maples, birches, and pines. However, this dramatic enhancement of one's power of observation is not different enough from a classroom to fully expose the nature of observation. There is too much explanation. It may seem that we are just learning facts from the naturalist's narrative, having relinquished the observing, the hard choice of what is worth noting, to the expert.

Turrell's skyspace allows each viewer to experience the full glory of pure observation. One sits comfortably for a quiet hour, with no need to know anything in advance. Walking into the room and sitting down, you have already seen all his cards: an illuminated room with a large sharp-edged aperture to the sky. There is no trick. You just experience the piece, in the slowness of time. Your mind wanders. You notice something. The once-distant sky now seems near, in the same plane as the ceiling. The hole has become a glowing blue panel. On one occasion we saw the "solid" "electric" "intense cobalt blue" of the sky framed by "hot orange" walls.

The students and I are always surprised by the diversity of our dynamic perceptual interpretations of the room and sky, changing in color, reflectance, emission, sharpness, shape, distance, occlusion, motion, and, recently, sound. Until one student observed it, I had not noticed that one hears the neighborhood cars, hot dog vendor, and passersby.

Observing is an important intersection of art and science. It is the hardest part of science to teach. It is exhausting yet does not look like

work. And it is terrifying to choose: Who am I to say what is interesting?

Though it seems passive, observation is a good model for the creative process. In observing, we pick a fact to record and consider. From among the vast but finite number of books that could be written, the novelist somehow selects one, a particularly good one. Photographers and painters pick images. Only by braving the terror of choosing can one achieve an original result.

Turrell's piece requires no explanation. It is ordinary enough that viewers feel competent to observe and try to understand. And yet it is different enough to produce many dramatic visual effects that greatly surprise most viewers. But the room is just a room. The viewer does all the work, observing it all and noting what is remarkable. Turrell stays out of it. There is no lecture.

"The more you have extraordinary experience in flight, the more you recognize the difficulty in passing on the experience to others. Your experience becomes such that it is almost too difficult to talk about it. It seems useless to try to transmit the experience. It would be easier to send others on the flight itself. The idea of the Bodhisattva, one who comes back and entices others to the journey, is to some degree the task of the artist. It is a different role from that of one who is there when you get there." (James Turrell, 1993, *Air mass*. London: South Bank Centre. p. 18.)

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