

GAGOSIAN GALLERY

Lightning Fields

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Hiroshi Sugimoto thinks that a good photographer always has to be part scientist. He gives us an exclusive preview of his latest experimental work.

Hiroshi Sugimoto likes to work only with natural light. His photography studio on the 11th floor of a Chelsea warehouse has north-facing windows that offer spectacular panoramic views over Manhattan. On the day I visit, assistants, working in conditions of laboratory cleanliness, are using a large vacuum press to mount prints from his latest series: photographs of mannequins dressed in avant-garde fashion from the collection of the Tokyo Costume Institute. Sugimoto refers to their couture volumes — theatrical pieces by Rei Kawakubo, Issey Miyake, Yohji Yamamoto, and others — as "stylized sculpture," and has portrayed the clothes almost as mathematical forms. Sixty years old, laconic and soft-spoken, Sugimoto has long been a kind of philosopher-scientist, concerned with experiments in light and time.

On one wall of the studio there is a huge board that looks like a cross between an abacus and a game of Battleship. Using different colored pins, it records the distribution of more than a thousand of Sugimoto's photographs; his celebrated series — begun in the mid-1970s — of natural history museum dioramas, seascapes, movie theaters, and portraits of wax figures. "Unlike a computer," says Sugimoto, "this system never crashes." I ask if the gold pins, of which there are many, represent prints in museum collections. "You've cracked the code," an assistant says, smiling. Sugimoto nods: "Museums are the final destination."

While Sugimoto's photographs of museum dioramas and waxworks play with our notion of the uncanny, capturing the already frozen in time, his seascapes and theaters are exercises in time's passing. In his seascapes, the long exposure cancels out the waves and renders the water eerily calm. (One of these photographs, depicting the Bodensee between Switzerland, Germany, and Austria, is to appear on the cover of U2's new

album, *No Line on the Horizon*.) In Sugimoto's pictures of American cinemas and drive-ins, exposed for the duration of a film, the audience registers only as a fidgety, ghostly blur and the screen becomes a luminous white space that retains no trace of a fleeting picture.

In many ways, these images take us back to the beginning of photography, when long exposures were a technical necessity. In Daguerre's photograph of the Boulevard du Temple, taken 170 years ago, the streets and sidewalks are empty of traffic; only a man with his foot on a crate stands still enough — because he is having his boots polished — to become the first person ever caught on camera. If Sugimoto has always explored photography's philosophical possibilities — capturing time in light — he's now gone back to its literal origins. He recently embarked on a project to buy as many of William Henry Fox Talbot's paper negatives as he could ("not cheap," he tells me), and has been making his own prints from them.

Sugimoto has also made a pilgrimage to Lacock Abbey in Wiltshire, where the British gentleman-scientist invented the negative/positive photographic process. Unlike the daguerreotype, the Polaroid of its day, Talbot's process allowed for multiple prints to be made of each photograph. When soaked in oil, Talbot's paper negatives became transparent, and could be contact printed onto several sheets of silver chloride-sensitized paper. Many of these images have appropriately magical titles: *A Grove of Trees at Lacock Abbey from the Point of View of a Mouse* (Talbot's wife referred to the small boxes with which Talbot snared these pictures as "mousetrap cameras"); *The Ghost of a Plant*; *The Soliloquy of the Broom*.

Talbot's images were often tinted lavender, lemon yellow, fire orange, and purplish brown by the chemicals with which he experimented. Sugimoto has been trying to mimic the methods Talbot used and many of his prints, or "retracings" as Talbot referred to them, are also toned with these rich hues. One, which hangs on his study wall, is deep blue, like a nocturne, and the botanical specimen it depicts is so dark as to be scarcely visible. "Most of Talbot's first tests were done in 1836, so this is from one of the earliest

negatives," Sugimoto explains of this mysterious image. "It's from a photogram; Talbot was a botanist as well and he placed a sample from his collection of plants on photosensitive paper and left it outside in the sunlight for a day."

Sugimoto tells me that "to be a good photographer you have to be a scientist as well." When he visited Lacock Abbey he discovered that Talbot had done experiments with static electricity in collaboration with Michael Faraday (in 1850, Talbot spun a copy of *The Times* on a wheel and attempted to freeze its movement using a camera with a static-generated flash), and it is by analogy with electrical terms that the positive and negative image take their names. Static electricity, as Sugimoto well knows, is the bane of the large-format photographer's life, but in the scientific spirit of his hero he decided to study this fault: "Sometimes, with 8x10 film, when you pull it out of the film folder it just sparks and scars the film," Sugimoto says, "especially in winter, when the conditions are very dry. When it happens that's the end of the image, so I always hated it. But at a certain point I decided to love it, you know, to make it happen intentionally. So I created a stage to make it happen."

Sugimoto bought a Van de Graaff generator, capable of creating 40,000 volts, and he used it to charge a metal ball with static for up to 10 minutes. The negative pole was created by a large metal tabletop, on which he placed a six-by-three-foot sheet of film: "When I feel the charge is strong enough then I just move the ball closer to the metal sheet and at a certain point — bang! — it just sparks," Sugimoto explains. The results, which he refers to as "lightning fields," often resemble meteor showers and, if the charge is powerful enough, create a treeing effect on the film, shattering it with forks of energy. These tendril-like forms look quite like some of Talbot's early "photogenic drawings" (as he called his photograms): cascades of spruce needles, dramatic explosions of wild fennel and oak branches. They also seem to refer to an earlier series by Sugimoto of candles photographed as they burn out over time, recorded by his camera as vertical comets of fire. Unlike these images (and his seascapes and theaters), the lightning fields are as instantaneous as the flash photography Sugimoto

abhors. "Yes, it's instant," he remarks, "but to get this instant moment I have to wait for a long time to get it charged up."

The practice is not without its risks (the generator is ominously labeled "Danger High Voltage"). When I ask if he's ever electrocuted himself, Sugimoto chuckles. "Quite often. Sometimes the spark comes to my belly. It hurts. It's hard to describe — it's just shock, it's like cutting yourself, twisting." The results of his pains were recently exhibited in Japan, at the 21st Century Museum of Art in Kanazawa, where he chose to display the outside negatives in light boxes, like X-rays. A sculpture depicting Raijin, the Japanese god of thunder and lightning, presided on a plinth in the middle of the gallery space.

In the late 1850s, Talbot abandoned photography to concentrate on his translations of ancient cuneiform texts. Sugimoto, who shares the Victorian natural philosopher's insatiable curiosity, has his own collection of these ancient tablets. He shows me a book of photographs he has taken of his sizable collection of curios, *History of History*, treasures that are now touring Japan. It is a Wunderkammer that takes us on an eccentric voyage through prehistory to the present: fossils; flints; Buddhist materials from the 12th and 13th centuries; theatrical masks; French anatomy books; copies of Newton's *Optiks* and *Principia*; a multiply signed photograph of Roosevelt's cabinet a week after Pearl Harbor; another of the 25 indicted Japanese "Class-A" war criminals; a picture of the first woman astronaut; a fragment of the parachute that brought her capsule back to earth; a sliver of the 1992 meteorite shower that crushed a car in Peekskill, New York; empty food packets from space missions; a piece of moonstone.

Interspersed with these objects, the book includes pieces of Sugimoto's own work. He closes the precious volume, and gently places a palm on the cover. "It is the sourcebook of my imagination," he says with a polite smile. 6

"History of History" will be on view at the National Museum of Art in Osaka, Japan, from Apr. 14 to June 7. The "Stylized Sculpture" series will be on view at François Pinault's Punta Della Dogana Museum of Contemporary Art, Venice, which opens June 6.

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