

ART & DESIGN

Kenneth Snelson, Sculptor Who Fused Art, Science and Engineering, Dies at 89

By WILLIAM GRIMES DEC. 23, 2016

Kenneth Snelson, a sculptor who stitched together aluminum tubes with flexible stainless-steel wires to create seemingly lighter-than-air towers, arcs and cantilevers, died on Thursday at his home in Manhattan. He was 89.

The cause was prostate cancer, his wife, Katherine, said.

Mr. Snelson was a painting student at Black Mountain College in North Carolina in the late 1940s when he became enchanted by the lectures on geometric forms delivered by a last-minute substitute teacher, R. Buckminster Fuller, the futurist inventor and father of the geodesic dome.

In an experiment, “Early X Piece” (1948), Mr. Snelson took two X’s made from propeller-shaped pieces of plywood and suspended one over the other using a matrix of nylon tension lines.

This was something new, an advance on the kinetic sculptures he had been making. “While forfeiting mobility, I managed to gain something even more exotic: solid elements fixed in space, one-to-another, held together only by tension members,” he wrote in a letter published in the International Journal of Space Structures in 1990. “I was quite amazed at what I had done.”

So was Fuller. He asked Mr. Snelson to make a variation on “Early X Piece,” which he later exhibited — without crediting his student — at an important exhibition at the Museum of Modern Art in 1959.

Mr. Snelson had called the principle behind his work “floating compression.” Fuller, around the time of the MoMA exhibition, combined “tension” and “structural integrity” in a new word, “tensegrity,” which became identified with his and Mr. Snelson’s work.

Delicate and airy, Mr. Snelson’s creations assumed a bewildering variety of guises. They hugged the ground, lizardlike, stretched horizontally from the sides of buildings, exploded outward like frozen pick-up sticks or rose vertiginously skyward, like the 60-foot-tall “Needle Tower” (1968) at the Hirshhorn Museum and Sculpture Garden in Washington and “Needle Tower II” (1968), 90 feet tall, at the Kröller-Müller Museum in Otterlo, the Netherlands.

The engineering aspect of his work and his interest in the structure of the atom, the basis of a series of sculptures that he called circlespheres, led some critics to regard him as a quasiscientist rather than an artist. Mr. Snelson rejected this interpretation emphatically.

“Engineers make structures for specific uses, to support something, to hold something, to do something,” he told Eleanor Heartney for her monograph “Kenneth Snelson: Forces Made Visible” (2009). “My sculptures serve only to stand up by themselves, and to reveal a particular form such as a tower or a cantilever or a geometrical order probably never seen before; all of this because of a desire to unveil, in whatever ways I can, the wondrous essence of elementary structure.”

Kenneth Duane Snelson was born on June 29, 1927, in Pendleton, Ore. His father, Jack, who was in the laundry business, opened a camera shop when his son was 6. His mother, the former Mildred Unger, was a homemaker.

Kenneth loved to build model airplanes and ships as a child, and he had the run of his father’s shop, learning to take still photographs and movies. After graduating from high school in 1945, he enlisted in the Navy, where he was trained as a radio technician and sent to Washington to work in naval intelligence. He served only 13 months, discharged when the Navy cut back on manpower after the end of World War II.

Eligible, just barely, for the G.I. Bill, he enrolled in the University of Oregon, where his courses in architectural drawing and design kindled an interest in painting.

When he found out that Josef Albers, a central figure in the Bauhaus movement, was the dean of Black Mountain College, he signed up for the summer program. Mr. Albers, noting his aptitude for three-dimensional design, asked him to help Fuller by constructing geometrical models for him to use in his lectures.

Mr. Snelson returned to Oregon, where he studied engineering for a time before spending another summer at Black Mountain. He later studied at the Institute of Design in Chicago and went to Paris to study with Fernand Léger at the Académie de Montmartre.

After moving to Manhattan he spent several years as a cinematographer, working on television documentaries and making small works in a variety of materials, all held together by internal tension. He also began using plastic rings, bound with nylon thread, and ceramic magnets to make the circlespheres that evolved into his experiments with atomic structure.

The 1964 New York World's Fair provided him with a big commission. Synergetics, a company founded by Fuller, was chosen as the architects and engineers for the Tower of Light, a pavilion financed by public utility companies. Mr. Snelson created a huge work of sculpture, "Photonium," measuring 30 by 35 feet, hung overhead in the pavilion's Court of Light, near the entrance.

He began exhibiting at the Dwan Gallery in Manhattan, an important showcase for Minimalism, where he had his first solo show, in 1966. That same year his work was included in the Sculpture Annual at the Whitney Museum of American Art.

In 1972 he married Katherine Kaufmann, who survives him, as do their daughter, Andrea Fionda; two grandsons, and a stepgranddaughter. His first marriage ended in divorce. His second wife, the former Audrey Goldenstein, died in 1966.

In his later work, Mr. Snelson elaborated on his atomic structures using digital imagery, which allowed him to summon forth complex, intertwined forms bordering on the fantastical. He also returned to photography, using vintage cameras to take panoramic images of streets and neighborhoods in New York, Venice and Paris.

At the rebuilt One World Trade Center, he came close to completing a work that, in vertical terms, would have been the capstone of his career.

With the architects Skidmore, Owings & Merrill, he designed sculptural cladding for the building's antenna. Called a radome, it was a tapering multifaceted structure of interlocking triangles rising more than 400 feet. But the developers, the Durst Organization, and the Port Authority of New York and New Jersey, dropped the idea, stating that the radome would be too difficult to maintain and repair.

In April the National Gallery of Art in Washington installed a 1968 Snelson work, "V-X," on the terrace of the newly renovated East Wing.

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