The Man With the Ideas

Exhibition in Asheville honors the genius of an architect, philosopher and dreamer par excellence

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ASHEVILLE - In the summer of 1948, Buckminster Fuller constructed an early, experimental prototype for the geodesic dome that would become his most famous invention. He constructed the prototype on the campus of Black Mountain College, about 15 miles east of Asheville.

Assisted by a small group of his students at the college, Fuller built his dome from aluminum Venetian-blind slats, and it immediately collapsed. At that point it was affectionately nicknamed the "supine dome."

Fuller was reported to have reacted by saying, "You succeed when you stop failing."

Undaunted, he returned to Black Mountain the next summer and used aluminum aircraft tubing to build a dome that was sturdy enough to remain standing.

Those two occasions are commemorated in documentary photographs featured in "Ideas + Inventions: Buckminster Fuller and Black Mountain College." The exhibition at the Black Mountain College Museum + Arts Center celebrates Fuller's accomplishments with related photographs, sketches, sculptures, books, a Fuller-designed world map, three-dimensional models, a video documentary and limited-edition prints made from original designs for some of his most widely known inventions.

Fuller (1895-1983) was a designer, philosopher and technological visionary who earned an international reputation for his inventions, his term "Spaceship Earth," and his concept of "doing more with less."

Fuller was expelled from Harvard for failure to attend classes during his freshman year. Although he never completed his formal education, he was awarded 25 U.S. patents, wrote 28 books and received 47 honorary doctoral degrees and dozens of awards for architecture and design, as well as the U.S. Medal of Freedom.

He spent much of his life traveling around the world and lecturing about his ideas, most often on college campuses. At the end of the 1940s, he spent two successive summers teaching architecture at Black Mountain College, a small, arts-centered school that existed outside the town of Black Mountain from 1933 to 1956. The college was forced to close because of financial problems and declining enrollment.

The college remains a subject of enduring fascination because of its pioneering, experimental approach to education and the disproportionate number of its teachers and students who went on to establish international reputations in the arts. In addition to Fuller were Josef Albers, John Cage, Robert Creeley, Merce Cunningham, Franz Kline, Willem De Kooning, Jacob Lawrence, Kenneth Noland, Robert Rauschenberg, Dorothea Rockburne and Cy Twombly, among others.

The nonprofit Black Mountain College Museum + Arts Center was founded in 1993 to educate the public about the school's history and commemorate it through exhibits, publications, lectures, performances and other programs involving individuals who were associated with the college.

The center's headquarters is a 1,600-square-foot storefront gallery, but its ultimate goal is to build a full-fledged museum to house and display manuscripts, artwork and other materials related to the college and its history.

By the time that Fuller arrived at Black Mountain College, he had already made a name for himself by inventing the three-wheeled, teardrop-shaped Dymaxion car and the prefabricated, circular Dymaxion house, or "dwelling machine," as he called it. The components of both inventions were so light that they could be assembled by one person. ("Dymaxion" was a term that Fuller coined to summarize the idea of doing more with less.) The show contains prints of design drawings for both inventions, as well as photos of prototypes.

Although Fuller anticipated that these revolutionary inventions would be put into mass-production, he was unable to reach arrangements with potential fabricators, and the companies that he founded to market them eventually went bankrupt.

Fuller's term for the domes that he worked on at Black Mountain College - geodesic - refers to the geometric subdivision of spheres or other curved surfaces.

Geodesic domes are built from interconnected, equilateral triangles. The main advantage is that they are very efficient in terms of material used on the surface area vs. the large amount of interior space that is created. The design is also scalable to any size.

The geodesic-dome design attained iconic status with the opening of the United States Pavilion at the 1967 World's Fair in Montreal. The pavilion was designed by Fuller.

That three-quarters geodesic sphere was made of steel and plexiglass; it measured 20-stories high and 250 feet in diameter. The American Institute of Architects conferred its first Architectural Design Award on the pavilion. Ada Louise Huxtable, the architecture critic of The New York Times, hailed it as "the greatest advance in building since the invention of the arch."

Most of the works in the Asheville exhibit are on loan from the collection of Rupert Ravens, an artist who lives in Montclair, N.J. In a recent telephone interview, Ravens said that he lived in Winston-Salem during his childhood and youth, and after finishing high school at the N.C. School of the Arts in 1973, he attended Rutgers University, where he earned bachelor's and master's degrees in fine arts.

He said he began collecting Fuller-related material about two years ago, but that his admiration for Fuller dates back to his childhood, when he first

saw photos and news footage of Fuller's pavilion in Montreal. To him, that building represented the future, he said, and ever since then, Fuller's career has served as a source of personal inspiration.

"He's our Leonardo da Vinci," Ravens said of Fuller.

Fuller's overriding concern throughout his career was applying available technology toward solving the world's most pressing problems. In the video documentary on view in the exhibit - Buckminster Fuller: Thinking Out Loud, made in 1996 for PBS television's "American Masters" series - filmmaker Arthur Penn recalls being a student of Fuller's at Black Mountain. Over a meal in the college dining hall one evening, Penn recalled, Fuller said that he believed that he knew how to house all of the people in the world. "It was such a large and compassionate view of the world that it just took your breath away," Penn says.

Few observers followed Fuller's career as closely and over as long a period of time as did his fellow architect Philip Johnson (1906-2005). Interviewed in the documentary video, Johnson says of Fuller, "He was the last of the true believers, wasn't he?"

• "Ideas + Inventions: Buckminster Fuller and Black Mountain College" is to remain on view at the Black Mountain College Museum + Arts Center through Nov. 26. The center is at 56 Broadway in Asheville. For more information, call (828) 350-8484.

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