

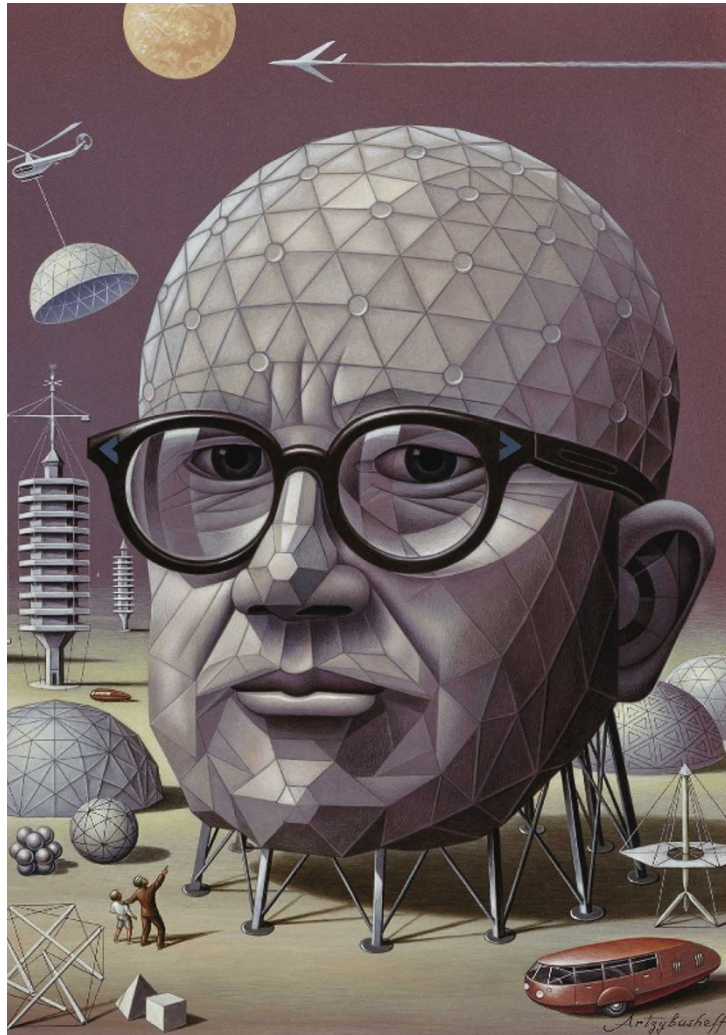
Bucky's utopian universe

In 1927, on the shore of Lake Michigan, an unemployed and possibly drunk US inventor contemplated suicide. Then, according to the legend he later spun, he had an out-of-body experience. He felt he was floating above the ground, surrounded by celestial light. A voice spoke to him: "You do not have the right to eliminate yourself," it said, "You do not belong to you. You belong to Universe."

Buckminster 'Bucky' Fuller — architect, environmentalist, author and visionary — responded to this call by wholeheartedly attempting to save humanity through science and design. Fifty years of his imaginative and influential work is the subject of a new exhibition at the Whitney Museum of American Art in New York.

Fuller described himself as a "comprehensive, anticipatory design scientist". He is best known for his geodesic dome. Hundreds of them sprung up like mushrooms in the late 1950s and 1960s, housing everything from museums to military bases. Fuller employed tetrahedrons, which he considered to be nature's essential building blocks, to enclose a spherical space using less material than almost any other structure. The Ford Motor Company commissioned one of Fuller's strong and lightweight domes in 1953; six years later, another housed the American National Exhibition in Moscow, the backdrop for the famous 'kitchen debate' between US vice-president Richard Nixon and Soviet premier Nikita Khrushchev. In 1967, a dome formed the centrepiece for the World's Fair in Montreal, Canada. Fuller also planned a dome some three kilometres in diameter to cover mid-town Manhattan like an enormous jellyfish, claiming that it would pay for itself in a decade by the money saved from not having to shovel snow.

The geodesic dome was like a thought bubble



Boris Artzybasheff's 1963 portrait of Buckminster Fuller.

Buckminster Fuller: Starting With the Universe

Whitney Museum of American Art, New York
Until 21 September

encapsulating the utopian dream of modernity. Yet most of Fuller's schemes never left the drawing board. Some of his earliest ideas, on show in the exhibition, are wildly imaginative. He planned a network of airport towers so high that planes could dock above the clouds, imagined planting skyscrapers in craters left behind by Zeppelin-delivered bombs, and in one drawing he attempted to 'synthesize' the Brooklyn Bridge and a Ferris wheel.

Fuller refashioned these outlandish ideas on a domestic scale. In 1928, attempting to solve the US housing crisis, he designed a dwelling whose entire structure hung from a central pole like a merry-go-round, and could

be erected in a day. The buildings looked like spaceships and boasted all the latest appliances, such as air-conditioning and a bathroom unit that required only a litre of water to give you a ten-minute clean with a Fuller-designed fog gun. He persuaded an aircraft firm to build two aluminium prototypes. But the so-called Dymaxion house — a neologism combining 'dynamic', 'maximum' and 'ion' — proved too expensive to mass produce.

Fuller invented a three-wheeled Dymaxion vehicle to complement his "New Era Home". This blimp-like car had a top speed of 190 kilometres an hour, a periscope instead of a rearview mirror, and allowed you to park front-first and then swing into the tightest of spaces. Only three were built — production was halted in 1934 after one crashed outside the entrance to the Chicago World's Fair, killing the driver. The sole surviving example is on view at the Whitney, along with a short film of Fuller showing off the car's tight turning circle.

Fuller's most important legacy is as a futurist who warned of looming environmental catastrophe unless technology was harnessed to create ingenious solutions. If the technology in which he had such faith had been able to keep pace with his thinking, perhaps more of his unconventional ideas might have been realized.

During Fuller's last decade, the architect Norman Foster collaborated with him, and Foster acknowledges Fuller's influence on his later, environmentally conscious buildings. Off the coast of Dubai, Dutch architects are building maritime structures that echo Fuller's plans for a floating Triton City. Perhaps one day we'll live in the tethered cloud structures that he also dreamed up.

"I did not set out to design a geodesic dome," Fuller wrote. "I set out to discover the principles operative in Universe. For all I knew, this could have led to a pair of flying slippers." ■

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