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## “FOR A DOLLAR DOWN...”

Seventy years ago, Buckminster Fuller foresaw Maine’s island real estate boom

RANDY PURINTON

Disney World’s Epcot Center is the world’s most famous geodesic dome, a monument to inventor Buckminster Fuller’s genius. Few recall, however, that earlier in the 20th century Fuller designed a much different structure that he hoped would be adopted by the world as a standard for efficient and easily constructed housing and be his claim to fame: the 4D tower house.

In the late 1920s Fuller was convinced that Maine islands would become sites for his first manufactured 4D tower houses and that once

he had established his reputation there, the rest of the world would become his marketplace.

Fuller’s plans for his 4D tower house are illustrated in a visionary manual he wrote in 1928, titled *4D Time Lock*. The manual was an attempt to teach architects, businesspeople and relatives his worldview, while persuading them to invest in his dream: the manufacture of lightweight, portable, multilevel towers that would be affordable to all people in all nations and climates.

He would begin in Penobscot Bay.

In his youth, Fuller spent summers at his family's retreat on Bear Island in East Penobscot Bay, south of Great Spruce Head Island, since made famous by photographer Eliot Porter. Because Fuller was familiar with the area, knew its proximity to urban centers and appreciated its potential for development, he thought the bay would be an appropriate incubator for his revolution in affordable, mass-produced housing. In July 1928 he wrote to his mother in Cambridge, Massachusetts, from his home in Chicago:

*Are you going to the island this summer... I am now giving my whole time to 4D work and have been doing so for the last six months. From my contacts and continued studies I am now confident that the many changes which I have predicted in 4D will surely come about and I am very fearful for your capital holdings... I recommend selling the Cambridge property at once... island property should be tremendously increased as I outlined to you a year or so ago... With but a handful of islands on the whole Atlantic coast, our group [in Penobscot Bay], reachable from New York in 3 hours and from Boston in 1 hour in the coming models of planes, are likely to become of tremendous value... I should recommend transferring the money from the sale of the Cambridge property to the purchase of additional islands, picked for their landing facilities... In a year or so when my 4D houses are ready we will be able to put them up on the islands in one day, with every facility of modern city living built in... on the installment plan, for a dollar down.*

Fuller envisioned a great decentralization of population as a consequence of the ease with which his housing units could be purchased, built and transported to any site in any climate in the world. Air travel by plane, zeppelin and blimp would facilitate this great change, making islands that could support an airfield particularly appealing and potentially of great value. In his book *4D Time Lock*, a rewrite of his 1928 manual, he included a sketch of what a coastal island might look like with a 4D tower installed on a bluff near the shore. The sketch is drawn as if the observer is the pilot of a small plane, looking over the left wing of the craft at two towers, one installed on a bluff overlooking the shore and another on an island in the distance. Two gaff-rigged sloops are visible under the wing of the airplane.

So convinced was he of the truth of his vision that in 1927 Fuller also sketched a view of 4D towers erected on sites all over the globe, including the North Pole, as if the observer were looking down on Fuller's triumph from outer space.

The tower house resembles a cubist artist's impression of a spruce tree. The tower has a core or column like the trunk of a tree and floors devoted to specific domestic activities are stacked at measured intervals looking, if not like branches, like a stack of hexagonal pancakes with space enough for adequate headroom reserved between them. Utilities are housed in the column. The outer walls of each floor are glass. An external crane is permanently mounted at the top of the tower—to hoist furnishings, add additional floors later or provide a mooring for a blimp—but which gives the tower the appearance of being perpetually under construction.

Fuller drew a sketch of how a 4D tower would be delivered and installed in an island setting. The six-panel illustration reveals what looks like a costly process involving a zeppelin, a bomb and lots of

concrete. Even if the tower itself were reasonably priced, planting it in the ground anywhere in the world and equipping it with utilities, water and a septic system would have been very expensive.

In the first of the six panels, a 700-foot-long zeppelin is anchored high above a shore with a 170-foot tower house lashed to its belly. A bomb has just been released from the zeppelin and has exploded near the head of the beach, creating a deep crater that is the excavation for the foundation of the tower. In succeeding panels the tower is lowered upright and the base of the tower is positioned in the crater. The tower is tethered vertically and temporarily by cables, and concrete is poured into the crater, fixing the base of the column in the ground, "...like setting of big guns in war time," Fuller writes. After the pour, the zeppelin is released and drifts away to make more deliveries. If Fuller's vision were realized in our time, given the heated waterfront real estate market he forecast in the 1920s, zeppelins would be bombing islands (if local ordinances permitted the practice) and planting 4D towers frequently.

In May 1928, Fuller asked his mother to buy airplane stocks so that she would benefit from the increase in air travel that would result from the establishment of numerous towers that would be erected in a matter of years and would be most easily accessed by air. He wrote:

*I suggest getting rid of all railroad holdings and putting the money in... airplane manufacturers... These air stocks seem to be selling very fast but I am confident of their going up a thousand points or more in the next year or so... You were always quite a one for prognostications and will be much excited when you receive my paper [4D]. This is strictly confidential. It is too early to do any boasting but it is thought by others as well as myself, and they of great authority, that I have struck a 'gold mine.'*



*In 2004 the U.S. Postal Service issued a 37-cent stamp depicting Fuller and a tower house.*

Fuller had convinced himself that his 4D buildings were going to be a worldwide architectural phenomenon. Two months later, in the letter to his mother on Bear Island, Fuller stated confidently, "There is no question that what I have predicted will come about."

Fuller created a 4D corporation and patented a manufactured house that rested on a column and featured floors suspended by cables, but none of these were built for a mass market. In fact, a 4D tower was never built. The corporation folded during the Depression. Planning for the 4D housing revolution faded, to be replaced by the advent of the geodesic dome, which Fuller patented in 1954. The popularity of the dome comes close to Fuller's dream of inventing a structure that can be built inexpensively and quickly anywhere in the world.

The geodesic dome has never been a popular design for a home though it is used successfully for industrial and commercial use. The best place to see a tower house is on a 37-cent U.S. postal stamp printed in 2004 to commemorate the 50th anniversary of the geodesic dome patent. The drawing of Fuller was done originally for *Time* magazine, the crown of his head shaped like a geodesic dome. On the left side of the stamp is the 4D tower with a helicopter flying over it, carrying a geodesic dome suspended by a cable for delivery and installation on some distant shore.

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