

BECOMING

BUCKY FULLER

LORETTA LORANCE

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PREFACE

In the 1960s and 1970s, Buckminster Fuller (1895–1983) was a popular speaker on the international lecture circuit. His untraditional way of thinking about the world and how it works was embraced by many, especially those in the counter-culture movement. They would sit through lengthy lectures of four or five or more hours to absorb Fuller’s lessons on how to make the world a better place. One reason the self-styled anticipatory comprehensive designer¹ was popular was he practiced what he preached.

Fuller pursued his goal along many paths. He designed houses for industrial production to reduce the use of materials, labor, and costs. A major achievement was the development of the geodesic dome, a hemispherical self-supporting structure built of interlocking tetrahedra made from mass-produced parts. Fuller saw the tetrahedron, a pyramidal form, as the basic shape of the universe. This led him to devise a new type of geometry, synergetics, based on the 60-degree angle, or two-dimensional triangle and three-dimensional tetrahedron, instead of the 90-degree angle, or two-dimensional square and three-dimensional cube. Fuller believed synergetics described the coordinates of the Earth, an unproven hypothesis.² His interest in the Earth went beyond defining its geometric order to organizing a system for tracking its resources. He began tracking the planet’s resources in the 1960s, which he named the World Design Science Decade. The inventory of the Earth’s resources evolved into the ongoing World Game. The purpose of the World Game is to show that the “world [can] work for everyone”; it is also “an antidote to war games.”³ While these diverse accomplishments may seem unrelated, they are all components of Fuller’s mission to teach people to

use technology for positive purposes, not negative ones, and to treat the closed ecological system of the Earth with respectful caution.

This philosophy was well developed by the 1960s, but Fuller did not begin his career with such lofty goals. His first independent project was an attempt to found a company, 4D Corporation, to manufacture a house of his design, Dymaxion House, in the late 1920s. Although this project was never realized, it did help establish Fuller as someone who was willing to go against conventional ideas and it did propel him into the public arena. His popularity was at its height in the 1960s and 1970s when his ideas and work were seen as welcome alternatives to established social mores and conventions. Some people interpreted these as rationale to withdraw from society, to drop out. This was not Fuller's intention. He believed it was important to work to effect change from an informed position within society, not by turning one's back on it. Therefore, it is not surprising that his first independent project, the Dymaxion House, represented more than just a new design for an industrially reproduced house; it was intended to make life better for its inhabitants who would in turn be able to improve society.

The Dymaxion House was a radical departure from the traditional house design, but it was not the first design for an industrially reproduced house. In the nineteenth century, prefabricated houses were manufactured in the British Isles and the United States. A number of companies, such as Sears Roebuck & Company, E. F. Hodgson & Co., and Gordon-Van Tine, had long histories of manufacturing and marketing houses by the 1920s. Fuller's idea of the industrially reproduced house was much different from the models offered by his predecessors. He did not want to produce the structural frame, interior partitions, floors, ceilings, and exterior cladding as these companies did. He wanted to manufacture the house and sell it as a complete unit with wiring, plumbing, environmental controls, and appliances. Fuller also rejected the reliance on stylistic criteria, especially historic styles, unlike established manufacturers.

Like Fuller, Howard Fisher was also interested in manufacturing houses in a manner similar to automobile production. Unlike Fuller, Fisher successfully founded such a company, General Houses, Inc., in 1932. European modernists — especially Mies van der Rohe, Walter Gropius, and Le Corbusier — advocated using standardization and prefabrication in houses. Yet Fuller was critical of these architects because he believed they simply wanted to use technology to package the traditional house in a stylish envelope.

With the design of the Dymaxion House he reconfigured the traditional right-angled house into a radial plan with a metal and plastic exterior. The lack of ornament, crisp lines, and use of planar surfaces reflect his understanding of both International Style design criteria and methods of industrial production. Fuller's attitude toward mass production and prefabrication may have paralleled the interests of his contemporaries, but his unusual design concepts meant the Dymaxion House was relegated to the realm of fantasy or futuristic architecture instead of being understood as a viable alternative to existing types of contemporary houses.⁴

Fuller's approach to design, allowing machine processes rather than aesthetics to control his strategy, places him in an unusual position within twentieth-century architecture. Although not a trained architect — in fact, he was not fully trained in any field — Fuller regarded the Dymaxion House as a practical and marketable solution to the need for shelter. He was disdainful of most architects because he felt their designs were inhibited by their fidelity to the demands of style or tradition. In terms of the house, the only traditions to which Fuller conformed were those of providing shelter and comfort. He believed houses should enrich the physical and intellectual lives of their inhabitants. These guidelines led him to reconceptualize the house as a radial container filled with labor-saving devices capable of facilitating and easing everyday life. Fuller did not feel bound by the stylistic conventions of architecture or its history as he sought to apply the principles of industrial production to houses.

Becoming Bucky Fuller is the first in-depth study of the beginnings of Fuller's interest in industrial processes, the home-building field, and architectural theory and design in the 1920s. It is a revisionist study of the development of Fuller and the Dymaxion House. Much of the material under discussion will be known to those familiar with Fuller's activities in the 1920s and early 1930s. Of course, one must revisit familiar material in order to treat it anew, which this text most certainly does. Fuller always acknowledged that his work on the Dymaxion House initiated his lifelong mission to manufacture houses. He was not, however, completely honest about the events leading up to the beginning of the project, or about his own activities during this period, or about what he was originally trying to accomplish. This is not to intimate that Fuller fabricated the events of this time. It is, rather, to disclose that he took artistic license with some of the facts of his life and work during the period under discussion to present himself in the best possible light.

My argument in *Becoming Bucky Fuller* is based primarily upon a close reading of papers in Fuller's archives, especially the multivolume scrapbook he began in 1907, the *Chronofile*. There is very little use of secondary sources in this text, including the semi-autobiographical books and biographies on which Fuller collaborated. With few changes and additions, the story of Fuller's activities in the 1920s and early 1930s is consistent whether it was written in 1951 (Richard Hamilton's unpublished biography, "Work of R. B. Fuller: Design Initiatives and Prototype Engineering"⁵) or 1999 (Y. C. Wong's dissertation, "The Geodesic Works of Richard Buckminster Fuller, 1948–68 [The Universe as a Home of Man]"⁶). Even researchers who are critical of Fuller basically repeat the same information (Karl Conrad's dissertation, "Buckminster Fuller and the Technocratic Persuasion"⁷). The reason for the consistency is simple: by 1939 Fuller had decided how his development and activities during this period would be portrayed, and his version became the template from which later accounts were derived.⁸ During his life Fuller granted very few people permission to consult his private papers. Yet he did not destroy the documents contradicting his carefully

constructed story. A few Fuller scholars have consulted these papers, but they elected to fit the information the papers contain into the accepted narrative with few modifications. For me, these documents served as maps I followed as I wended my way through the truth and fiction of Fuller's biography and work. Instead of trying to fit the information I discovered in Fuller's papers into the established sequence of events, I used it to write a parallel history, connected to the original at major points.

In writing this parallel history, I use as much text from the original documents as possible. These texts are allowed to "speak" for themselves. In addition, there is no backward extrapolation from later materials. In other words, I do not use information from Fuller's later writings to explain what he was doing in the 1920s. As he continued to work on his concept for the industrially reproduced house, Fuller expanded and refined his ideas. The later materials show how the project progressed, not how it began. Although not all the first steps are known, Fuller's archives reveal a carefully planned, extensively analyzed, albeit unsuccessful, strategy to organize a corporation to manufacture and market an industrially reproduced house with a full array of mechanical accessories, the Dymaxion House.

Becoming Bucky Fuller is concerned with both the origins and development of the Dymaxion House project and Fuller's public persona. The years between 1922 and 1933 saw not only the development of Fuller's first project for an industrially reproduced house but also the development of Buckminster Fuller, the man with the vision and determination to follow the project through to completion. This is not to privilege the early work over the later work, but to thoroughly analyze for the first time Fuller's activities during this period without looking through the veil he placed over them. I have formulated my answer to why Fuller cast the events of the 1920s into a seductive narrative instead of a mundane reiteration of just the facts. "Just the facts" presents the life of an ordinary person, and Buckminster Fuller was no ordinary person.