BUCKMINSTER FULLER (1895 - 1983)

by Victoria Vesna

INTRODUCTION : Pioneer & Visionary

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Thence evolved a mathematics based on the proportion of reciprocal forces, complements, and functions of a mobile, non-static TIME-world. Thus the scientist-philosopher-artist, by the teleogical mechanism of mathematics which contains in its infinite ramifications all the secrets personally contacted by the Yogi, made possible continuity of the expression of the truth beyond "the great wall" of the body and of personal death. (Fuller, 1938, p. 105)

When searching for a prescient historical personality prefiguring the bio-tech age to come, what better example than Buckminster Fuller. Much ignored by the generation of artists who may profit most by being acquainted with his vision, Fuller, with his carefully constructed persona of Anticipatory Design Scientist, heralded the coming age of artists who work in tandem with scientists and toward innovation and discovery of the aesthetic of the invisible realm.

It is important to stress that Fuller was at once a philosopher and a practitioner - a necessary mix for contemporary artists, no matter what the media of choice. For anyone working with volatile technology, being able to ground oneself historically and articulate the work that evolves in the midst of chaos is simply mandatory for survival. Definitions of Buckminster Fuller are as myriad as the fields he traversed. On different occasions he was referred to as an architect, inventor, scientist, engineer, mathematician, educator, philosopher, poet, speaker, author, consultant, economist, futurist, transcendentalist, and designer, and the list goes on. His visionary, magnetic personality had an inspirational, and in some cases catalytic, effect on many influential people in various disciplines. Each field had something to learn from his comprehensive outlook, yet no one field completely embraced him, including art or architecture.

Strongly influenced by his great aunt Margaret Fuller, a leader in theosophical society, he considered the machine inseparable from the spiritual principle operating in the universe. Margaret Fuller's transcendentalism was an inspirational force through his lifetime, as was Albert Einstein's theory of relativity and Henry Ford's introduction of automation into the workplace. This triangle of spiritualism, science, sculpture and mechanization is ever-present in his work, and it is reappearing in the emerging field of the digital arts. Fuller influenced and inspired many artists who went on to revolutionize and redefine the idea of art and his complex

relation of links to interests, activities and people could easily be likened to one of his geodesic structures consisting of a seemingly endless number links.

Buckminster Fuller was the ultimate net- worker-physically moving from place to place, making connections igniting inspiration everywhere he went. He expressed his ideas in disorganized fragments and marathon lectures, he was magnetic, mesmerizing, and inspiring to those he made contact with, even if they did not understand what he was saying. Delivering more than 2,000 lectures at 500 universities and colleges and making 48 trips around the world, he was a tireless performer. Famous for his non-stop "talkathons," he put his ideas to the test in architectural forms, eighteen books, and, toward the end of his career, in World Games which engage global problems through gaming. Very early on, in his ***Nine Chains to the Moon*** treatise, he qualifies genius and talent: "The function of genius is to provide new instruments, and to process-means for the progressive growth of man; talent's function is the precise and harmonious popularization of the otherwise undetectable, and, therefore, otherwise non-useful products of genius. What is often mistermed as plagiarism is more precisely 'talent.' 'Plagiarism' is an ethical off-shoot label of the false property illusion described in our phantom captain chapter."

Although embraced and befriended by revolutionary artists of his time, Fuller was never able to define himself as one of them. His complexity, mobility, and use of various technologies alluded to and attracted many fields, putting him in the position to be the predecessor of a complex persona that was yet to emerge. Although he refrained from calling himself an artist, perhaps because of the constraints of the time he lived in, his definitions of artists are probably much closer to describing himself than any of the definitions he readily acknowledged. And although he used the word "artist," when he referred to painters, sculptors and dancers, he proclaimed that one day Henry Ford and Albert Einstein would be recognized as the greatest artists of our time. As a practitioner, he was most inspired by those who were able to change society with their work, and his life was a devoted effort to do the same.

"The great scientists and great artists are not only subjective and pure but also objective and responsible inventors", Fuller said. He felt that artists had a unique position because of their comprehensive training which frequently gave the artists a broader viewpoint: "I feel that it is the artists who keep the integrity of childhood alive until we reach the bridge between the arts and sciences". He felt that the broad outlook artists are privy to is their strength: "Artists haven't painted themselves into the special corner. Because of a comprehensive outlook, their art reflects the many disciplines, especially science", he wrote "The only ones who don't get trained for specialization are artists, they want to be whole".

Fuller often stressed the importance of blurring the artist's and scientist's roles. He felt that the artist often created patterns through her imagination that the scientist later saw in nature. But at the core, Fuller's vision was that these two opposite sides of the cultural pendulum's swing would eventually come together. He was perfectly aware that this was not an entirely new thought, as he himself quoted Leonardo da Vinci, who he called a "painter, sculptor, architect, engineer and inventor of the wheelbarrow, and other useful instruments from the speaking tube to the mechanically gyp-proof whore-house," and who wrote: "the further art advances the closer it approaches science, the further science advances the closer it approaches art."

In many ways Fuller was rooted in centrality, universality and Cartesian principles that seemed to contradict his visions. Because he is impossible to classify, it is all too easy to focus on one aspect of his character and dismiss the entire complex persona. This is unfortunate, as it is precisely the contradictions that makes his work so important today. The problem of how one may navigate contradiction and complexity is central for those working in art and technology. Fuller provides a model that points to integrity as being key in the work one builds while on this **Spaceship Earth**. Although he professed a lack of interest in how his projects looked, he believed that a project at completion was beautiful if it possessed integrity, which to him was the key to aesthetics. Integrity is a crucial word in redefining art according to Fuller - integrity of individual communication independent of the medium of its articulation.

"The great aesthetic which will inaugurate the twenty-first century will be the utterly invisible quality of intellectual integrity; the integrity of the individual dealing with his scientific discoveries; the integrity of the individual in dealing with conceptual realization of comprehensive interrelatedness of all events; the integrity of the individual dealing with the only experimentally arrived at information regarding invisible phenomena; and

finally integrity of all those who formulate invisibly within their respective minds and invisibly with the only mathematically dimensionable, advanced technologies, on the behalf of their fellow men". Fuller, 1973

Fuller very early on recognized the computer as a human extension, never losing the organic quality in his interpretation of the human/machine relationship. He describes man as a machine driven by the "Phantom Captain," without whose guidance the "human" mechanisms are reduced to imbecile contraptions. The Phantom Captain is likened to a variant of a polarity dominance in our bipolar electric world, which, "when balanced as a unit, vanishes as abstract unity I or O". With the Phantom Captain's departure, the mechanism becomes inoperative and very quickly disintegrates into basic chemical elements.

Fuller spent his lifetime constructing practical prototypes of some of his visions and was convinced that even the most fantastic scenarios were possible. He thought he could manifest utopia. He left behind a wealth of information for us to look through, leaving it up to each individual or group to decide how to categorize it. A year after he passed away, Harry Kroto and Richard Smalley, the experimental chemists discovered the C_{60} molecule and named it **buckminsterfullerene**. H.W. Kroto said that the newly discovered carbon cage molecule was named buckminsterfullerene "because the geodesic ideas associated with the constructs of Buckminster Fuller had been instrumental in arriving at a plausible structure". (Applewhite, 1995) There is a certain poetic justice that Buckminster Fuller was immortalized via a molecular structure that is holding the key to the emerging field of nanotechnology, the field that promises to usher in an age of true ephemeralization he prophesied throughout his lifetime.

References

Buckminster Fuller, *Operating Manual for Spaceship Earth* (Penguin, 1973).
Synergetic Webbing Exhibition, Buckminster Fuller Institute. 1997-1998.
Buckminster Fuller, *Nine Chains to the Moon* (J. B. Lippencott, 1938).
Fuller, *Synergistics Dictionary* (McMillan Press, 1975).
Applewhite, EJ. "The Naming of the Buckminsterfullerene". *The Chemical Intelligencer*, July, 1995 (Vol. 1, No. 3)

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