



## PATTIERNS W H I C H CONNECT

## REFLECTIONS ON R. BUCKMINSTER FULLER AND GREGORY BATESON

BY BOB SAMPLES

Bob Samples is an independent scholar whose training encompasses the sciences of geology, geophysics and astronomy as well as psychology, creativity and brain function. For twenty five years his work has focused on the origins of creative thought, the role of personality, management styles, stress and learning modes. He is currently continuing research in brain-mind design and function, night dreaming, and the concept base for planetary consciousness. Samples' newest book, OPEN MIND/WHOLE MIND: PARENT-ING AND TEACHING TOMORROW'S CHILDREN TODAY is a 1987 release from Jalmar Press, Rolling Hills Estates, California. In it, he further explores and expands upon the concepts in this article and provides anecdotes and suggestions for daily use by parents and teachers.

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One of the great issues facing humankind is that we are not using our brain-mind system in ways that honor its design. Each culture on the planet has set limits of appropriate brainmind use. These limits are the way a culture controls its members. As each culture asserts the ways of thinking, which have social approval, it emphasizes the separateness and differences between itself and other cultures. The result is ultimately nationalism and nation-state separatism.

Actually, our brain-mind system possesses natural design characteristics of unity and wholeness. The irony is that as each of us is nurtured by the society in which we live we are taught thinking skills that reductively set us apart from other human families. Our family rearing practices, educational systems, religions and political processes tend to reward us for thinking in reductive and specialized ways. We rarely are encouraged to transcend the artificial boundaries of map lines, passports, and national identity.

At this moment in history the folly of such compulsive fragmentation and divisiveness seems to limit our very capacity to survive. Can we, as Einstein so poignantly said, change our ways of thinking to avoid unparalleled destruction? We desperately need models to help our ways of thinking to become more complete, more in tune with our natural design. I propose that a re-examination of the ideas of Buckminster Fuller and Gregory Bateson will provide a beginning.

I am convinced that Bucky Fuller and Gregory Bateson never met. But in my mind I have fantasized mightily about what vision would have been born of their mutual commitment to understand how the world worked. Bucky made such awesome contributions to humanity that it is folly to attempt to single out any single offering as central. However, in these pages, I will refer to his SYNERGETICS I and II - only two of his thousands of remarkable offerings. In these two books he drew a fine brush portrait of his ideas. In the case of Gregory Bateson, his most comprehensive work was the book MIND AND NATURE: A NECESSARY UNITY.

I met both of these men in the course of a life devoted to a quest that hopes to hold at its end a more cogent sense of how the human mind thinks, learns, knows and creates. My own training has been in the natural sciences of geology, geophysics and, briefly, in astrogeology. These are worlds without border and thus are much like study of the mind. It seemed natural then, some thirty years ago, to take the ways of knowing framed in these sciences and explore the boundless reaches of the human mind.

As I began my journey, the researchers who were bringing newness to the literature about the brain were a rich and varied lot. They were neurosurgeons, neuropsychologists and psychologists. Mostly they were involved with the form and function of the brain. The medical community was markedly involved with form. The psychologists' vision was dominated by function. Neither group seemed much interested in the larger context of natural systems. For many of them electrical stimulus, chemical enhancement, surgery, batteries of tests and biofeedback seemed enough.

Hundreds of papers appeared in scientific journals and the popular press. Dozens of books appeared, among which was my first book exploring the brain-mind systems' form and function as related to education. It was called THE METAPHORIC MIND. Years later several of my medical and psychological colleagues confided in me that they felt I had made a serious mistake in the book when I insisted in emphasizing the bond between mind and nature. They said it nudged the substance of the content toward an ethereal form of pop-psychology. I was almost tempted to agree with them when I found it displayed in many bookstores under OCCULT AND SUPERNATURAL. Clearly this was not my intent. Its frequent placement there speaks to the persistent timidity in our culture to honor the inherent unity between humans and nature. I will confess to finding solace in re-reading the bibliography of my book as well as its sequel, MIND OF OUR MOTHER, and finding the familiar names of remarkably comprehensive thinkers whose range includes Jonas Salk, Michael Polanyi, Margaret Mead, Rudolph Arnheim, Erich Jantsch, Arthur Koestler and of course Fuller and Bateson.

Bucky and I had shared the podium a half dozen times before I met him in more intimate settings. Later on we both served on the advisory board of the Windstar Foundation. Upon greeting one another at the first of our advisory meetings in Snowmass, Colorado, he looked quizzically at me and said, "You are the fellow that talks about the brain and mind." I was flattered but immediately knew that part of Bucky's genius came from his attentiveness to the work of others. When I answered yes, he asked if I read what he had written about the brain-mind. I admitted that I was not as familiar as I would like to be and asked what I should read. He guided me to SYNERGETICS I and II. I had come to the advisory meeting a day early so I stole away to a park in nearby Aspen and read voraciously. Even with the fine tuned cross referencing between the books it took nearly a day to ferret out his vision.

I was amazed at the simplicity with which he bonded brain and mind with the larger systems of nature. Form and function were subsystems of the more embracing concept -design. In Bucky's view, the brain and the mind that it creates are different in kind. The brain can apprehend form as part of its design function. In other words it can operate itself at a solely physical level. This means its form can functionally understand itself as form. But Bucky saw the mind as infinitely more than just form. The brain creates mind and mind stands as the contact medium with the cosmos. Mind goes beyond form and creates models. Models are not fixed like form is; models are generalizations of interrelationships and are our entry point into the sweep of evolutionary consciousness.

Let me pose this a different way. The brain is finite. It is a four pound, pinkish-gray mass that has structures and it is the locus of activity that can be seen and measured. One can wire the brain into measuring devices and monitor different kinds of energy being produced. In addition careful observations of chemical families can detect different neuro-

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chemicals which relate to the electrical activity and brain function. All of the brain's myriad activities interrelate in complex ways, like great rolling storms sweeping across our mindscapes they serve to provide traces of understanding about how the brain works. As awesome as all this physical activity is, it is trifling compared to the "enchanted loom" of mind which weaves each of us into the common fabric of the universe.

Mind is the dynamic which connects the brain to the systems of relatedness outside the brain. The mind is the brain's outreach program to the universe. It is mind that Fuller saw as the context that united all ideas, all people and all integrities. Unity is part of our design.

Bateson was following remarkably similar paths late in his life. After making original contributions in four academic fields, he settled into exploration of the unity between mind and nature. The book bearing the same title did much to provide his followers with the general framework of the interrelatedness of the two.

Bateson was adamant about the importance of the "pattern which connects." He sensed a spiritual kind of ecology of relationship that permeates the universe—a dynamic template that provides the evolutionary backdrop for the interpenetration of life and thought. Aesthetics, for him, are manifested in a response toward that connecting pattern. Ugliness is an avoidance of or an attempt to detroy that pattern.

Bateson saw nature manifested in the pattern. He also saw thought, knowledge and wisdom as having the capacity for blending gracefully with the pattern. He also had ample evidence, however, that there were those who would use thought and knowledge without wisdom. They seemed to choose to exploit the pattern rather than to honor it. Ugliness guides their quest. Bateson admonished those who used the context of mind to achieve power. He said in a paper on psychotherapy:

"We...scientists would do well to hold back our eagerness to control that world we so imperfectly understand...Rather our studies could be inspired by a more ancient, but today less honored, motive: a curiosity about the world of which we are part. The rewards of such work are not power but beauty..."

Bateson eventually provided the linkage between reason and aesthetics that holds aesthetics to be bonded to the pattern which connects and reason to be that which is connected.

Fuller might have seen mind as being the aesthetic that Bateson postulated. Could it be that mind with its modeling capabilities and penchant for interrelatedness could provide the mystical medium through which all knowledge and reason is born? Is what Bateson called reason that which Fuller referred to as form?

What can all this mean to us? It is clear that both Bateson and Fuller had minds tuned into connectedness and beauty. They embraced the finite and tangible within us, making it natural and useful for us to yearn for greater realms of beauty and generalized connectedness. It has been the quest for power—characterized by fragmentation and divisiveness—that has so demeaned the human condition. To have the courage to seek a harmony, a beauty in the workings of mind stands as a goal for us all. War is the consummate ugliness. War is the ultimate obscenity of the search for power.

Although war may well represent the most urgent target for elimination, we must remember that the ultimate goal is to re-establish a lasting human harmony with nature—a restoration of balance between humankind and naturekind. Once our most urgently prayed for hopes are realized—epitomized today by the dismantling of the world's nuclear arsenal - we still have the awesome problem of ridding our planet of the effects of countless tons of the most toxic substance known in the universe.

Millennia ago we abandoned hunting and gathering societies for a more consumptive kind of technology. This shift swept us headlong into a maelstrom of productivity and confusion. Now we seek to reclaim the possibility of survival. To do so we must bond technological cleverness with the more deepseated rhythms of natural evolution. We must re-unite natural and human integrity. Fuller and Bateson seem to have stood at the edge

of dawning possibilities of achieving this.

A deep seated commitment to providing technologies for the benefit of the planet and its living families was one of Bucky's great passions.

Gregory Bateson provided an image of hope in his descriptions of mind and nature as a unity.

Clearly, in the quest to create greater harmony between the planet and its living families, we can step beyond the material base of form. We can acknowledge our connectedness to the mystical fabric of the universe through our minds—through our aesthetic. All of our cultural institutions stand on the threshold of transformation. One example of such a transformation is witnessed in medical practices during the past fifteen years. Holistic concern for patients becoming personally responsible for healing and wellness has allowed the medical establishment infinitely more options to evolve toward a new integrity.

We are seeing similar transformative re-entry by other institutions into the natural evolutionary flow. Religion, education, politics, government and parenting have all explored anti-evolutionary ugliness. History's wars, famines, injustices and holocausts are representative of how, in ugliness, we ignore the possibilities of our natural design. Today we cannot escape being reminded of the discrepancies between design and the possibilities of an aesthetic path. The electronic consciousness of telecommunication and the extensions of our brain-mind systems via rapidly growing computer networks are central in serving our urgency to regain balance.

From the edges of consciousness in our human past comes the ancient Anasazi song:

There is beauty above me There is beauty below me There is beauty all around me I walk in beauty

We have become intimate with ugliness and perhaps we are again ready to choose beauty. We are reaching out to reclaim the birthright of our design. We stand at a dawnpoint of human and planetary possibility.

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