

A Synopsis of “Operating Manual for Spaceship Earth” by Buckminster Fuller

 Posted on 21 November 2019 by [cjf](#)

To celebrate the 50th anniversary of the publication of [Buckminster \(“Bucky”\) Fuller’s “Operating Manual for Spaceship Earth”](#), I re-read the book twice over the last four months. Doing so, I glimpsed a way to integrate its ideas into a brief overview. My idea is to read through its mythologizing and storytelling—fun though they are—to avoid getting distracted in interpreting and assessing all that. And to highlight its key ideas as I prepare for a [group exploration of the book on 30 November 2019](#).



Note: All quotes are from the book.

Synopsis

Intellectual specialization precludes understanding our place in Universe. “[S]pecialization precludes comprehensive thinking.” Bucky argues for our innate comprehensivity meaning to comprehend comprehensively, to comprehend our worlds broadly and deeply, to be “macro-comprehensive and micro-incisive”.

“Comprehensively commanded automation” (the title of chapter 3) refers to the way in which “the omni-interrelated and omni-interaccommodative” generalized principles, such as the principle of leverage, Einstein’s $E=mc^2$, the conservation of energy, and the thermodynamics of entropy, intricately automates the basic operations and behaviors of our Universe. Everything in Universe (comprehensive) is subject to these principles (commanded) so that no one has to plan for, specify, calculate, or certify that the resultant behaviors fully accommodate all the principles when an apple falls from a tree (automation). Even you and I are predominantly automated in that we don’t consciously direct our foods to our bodily tissues, glands, and organs. Our automated energy supply ships, Sun and Moon, together with all our principles of astronomy, optics, and geology have hidden in plain sight the fact that we are all astronauts aboard Spaceship Earth and always have been. “Comprehensively commanded automation” also suggests how these principles generate “inexorable evolution”.

The storyline of the book hinges in chapter 4 “Spaceship Earth” where we apply our innate predilection for comprehensivity to examine the question of why did this exquisitely designed automaton, Spaceship Earth, include no instruction book? It could be that we were designed to have to exercise our intellects to figure out how the world works, to discover its generalized principles, with only a minimum of pre-programming as instinct. That implies that we have designed into us the facility to imagine and then apply (test out) an ever increasing array of ever more generalized principles which we accumulate as part of our cultural heritage. These imagined and verified principles have provided good enough models of the actual mechanism of automation for our spaceship that our design capability has attained an unprecedented aptitude. We have succeeded to an extraordinary degree: witness Einstein’s accomplishments, quantum electrodynamics, the Moon landing, Cassini-Huygens, global communication in a pocket-sized device, and so much more. We have discovered a function of our intellect in Universe: making sense of the world and how it works and putting that know-how to use.

“We have not been seeing our Spaceship Earth as an integrally-designed machine which to be persistently successful must be comprehended and serviced in total.”

— R. Buckminster Fuller in “Operating Manual for Spaceship Earth”

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