

The Origin of Species by Buckminster Fuller¹

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PLAYBOY: Don't you see time running out for man in terms of his being able to afford the luxury of trial and error?



FULLER: Oh, indeed. Not only do I see man as having a function in universe, which means he really is necessary to universe, but I also see that universe doesn't take a chance on this little team down here on Spaceship Earth. We are infinitely tiny and insignificant. Very often, the flames of the sun rise 30 times the diameter of our little earth. The size of our show here on earth is something we really need to emphasize. I often say this to my audiences nowadays. I'm standing on the stage and behind me is an enormous projection screen, and I've got a slide that was taken through one of the giant telescopes. It represents about one ten-thousandth of the total celestial sphere and is absolutely riddled with tiny white stars. And I point out that our sun is one of the tiniest. We also know that it takes light four and a half years, coming at the rate of 700,000,000 miles an hour, to get to us from the next closest star. So I tell my audience, pick the smallest dot you can see on the screen behind me and imagine drawing a tiny circle around it almost as small as the dot itself. That microscopic area can be said to represent the solar system of which our earth is part. And then I have a voice rising in one of those cartoon voice balloons from this almost invisible dot, and the voice is saying, "Never mind that space stuff - let's get down to earth!"

PLAYBOY: Despite that picture of man's insignificance in space, you seem to be speaking of human life as being expressive of the "integrity" of the universe. Couldn't it just as well be something with no meaning at all beyond this tiny planet?

FULLER: I speak of universe in two aspects, the physical and the metaphysical. And I talk about scenario universe as my interpretation of Einstein's discovery of the speed of light. The significance of that discovery is that when we look out at the stars, we're seeing a live show that took place 20,000 years ago or 50,000 or 150,000; it's an aggregate of non-simultaneous events. I use human life as an expression of this simply to show the overlapping quality that gives you a continuity of life despite individual births and deaths. I simply say that life on earth is a demonstration of the anti-entropy which is the prime Einsteinian realization. Remember that, up to the time of Einstein, it was thought that universe was a single simultaneous system and, like all systems, was running down. Therefore, it would someday run out and be done with. And then Einstein announced that the significance of his speed-of-light demonstration made it perfectly clear that universe was not running down. Energy dissociating here was joining there. These energies were aggregating, and after they reached maximum aggregation, they dispersed. I use human life only as an expression of such a scenario.

PLAYBOY: The aggregating energies of the universe created man. Yet you've written that human life was probably not the result of evolution here on earth. What did you mean?

FULLER: I meant that man probably came to this planet as whole man, a creature very much like we see today. He might have been sent by electromagnetic waves, as is perfectly possible, since man *is* an aggregate of electromagnetic waves. The frequencies might have been transmitted. Of course, I'm not pretending to know how man arrived, but I think he arrived as total man, because I find that universe is inherently complex, a complex of generalized principles, and man himself is just such a complex. It's no more unreasonable to assume man *a priori* than it is to assume universe, and science tells us that we have no choice as far as universe is concerned. Where Darwin tried to explain things in terms of the thinking of his time, I have the advantage of living a life non-simultaneous with but partially overlapping Einstein's. A contemporary of Darwin was John Dalton, the great physicist who originated the atomic theory and who said that all atoms are made of hydrogen atoms. He liked the idea of the atom as the building block, the key to existence. You'll find that society always embraces such monological explanations.

But now, in the past decades of physics, one of the most impressive realizations is the acceptance of fundamental complementarity in every realm of existence. There is no single key, and things that are complementarities are not mirror images of each other. So I'd say that Darwin's starting with the single cell in his theory of evolution was very much like Dalton's starting with the single atom. Today we know that man consists of all 91 regenerative

¹ Source: Extracted from *The Playboy Interview* with Buckminster Fuller (February 1992, Volume 19, Number 2).

elements found on earth, and every one of them is part of his good health. The amoeba does not have all these chemical elements, and there is no way to start with a single-cell creature and build up to man, because elements would be missing. On the other hand, we've learned that it's easy to inbreed characteristics. You concentrate genes and the mathematical probability is that sooner or later you'll get the characteristics you're after. But you inbreed at the cost of general adaptability every time. So you could take human beings and inbreed them until you came up with a monkey. You can see that happening every day. Lots of people are halfway to monkey.

PLAYBOY: If we understand the implications of your idea that the universe is counting on man to complete and maintain it, it would seem that you also reject the tragic sense of life that colors most modern philosophies.

FULLER: I take the word tragedy to represent poor innocent man's being born ignorant and helpless and not having any idea of what's going on in universe. If for one instant we could come to understand our universe and could perceive ourselves as one with it, we wouldn't have to consider such a word as tragedy. We would see that there is absolute immortality. Tragedy, I think, is what happens when everything comes out wrong and nothing works and universe is a failure. But I don't think universe *is* a failure, and the reason I don't think so is that, as far as we can see, universe is an eternally self-regenerative system, so we can think of it only as a complete success. It includes everything we experience and all of it has a logical and really sublime integrity.

PLAYBOY: That could be taken as a profoundly religious statement.

FULLER: I personally interpret the word religion as being related to *religio*, which means to tie or fasten - in this case to rules, to dogma. You begin with the assumption that everyone is ignorant, and somebody much wiser comes along and says, "You're not old enough to understand. I *do* understand, however, and I want you to believe every word I say." And you say, "All right, Father, I know you love me and wouldn't mislead me or cause me harm, so I believe you." There you have an exchange that I'd call religious. It's built on subscription to dogma. You're told what to believe and you learn how to repeat it.

PLAYBOY: Considering the resurgence of religious feeling among young people today, don't you think their enthusiasm for you and your ideas might be based on your positivism, which might be taken as a kind of religious reverence for the universe?

FULLER: I'm not sure I'd agree that positivism is a form of religion. I don't see the connection. Besides, young people today aren't going for dogma. That's exactly what they're giving up. They're doing their own thinking. They may hear me say that science begins with the awareness of the absolute mystery of

universe. Young people intuitively feel that mystery, I think, and they're searching for what they may be allowed to believe on their own. They find in me such a searcher and they're interested in my searching; that's exactly the opposite of saying that they're developing a new religion and have taken me to be some kind of new priest. I'm not a priest. I'm not asking them to believe anything. In fact, I tell them the opposite. I tell them: Don't believe *anything*.²

Buckminster Fuller's Self-Disciplines

Source: Chapter 4 in Critical Path

2. Commit all of my productivity toward dealing only with the whole planet Earth and all its resources and cumulative know-how. Observation of my life to date shows that the larger the number for whom I work, the more positively effective I become. Thus, it is obvious that if I work always and only for all humanity, I will be optimally effective.
3. Seek to do my own thinking, confining it to only experientially gained information.
4. Seek to accomplish whatever is to be attained in such a manner that the advantage attained would never be secured at the cost of another or others.
5. Seek to cope with all humanly unfavorable conditions by searching for the family of relevant physical principles involved.
6. Reduce my inventions to physically working models and must never talk about the inventions until physically proved or disproved.
7. Seek to reform the environment, not the humans. I am determined never to try to persuade humanity to alter its customs and viewpoints.
8. Never promote or sell either my ideas or artifacts or pay others to do so. All support must be spontaneously engendered by evolution's integrating of my inventions with the total evolution of human affairs.
9. Assume that nature has its own gestation rates, not only for the birth of each new biological component, but also for each inanimate technological artifact.
14. Above all, seek to comprehend the principles of eternally regenerative universe and discover how humans function in these principles.
17. Seek to operate only on a do-it-yourself basis and only on the basis of intuition.
18. Plan for my design science strategies to advantage the new life to be born on Earth, life born unencumbered with the conditioned reflexes so prevalent today.
19. Commit whole-heartedly to the above and pay no attention to "earning a living" in humanity's established economic system, yet find that my family's and my needs are provided for by seemingly pure happenstance and always only in the nick of time.

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