

# Looking at Man's Role In the Universe

Oyang Teng

## Talking About Life: Conversations on Astrobiology

by Chris Impey

New York: Cambridge University Press, 2010

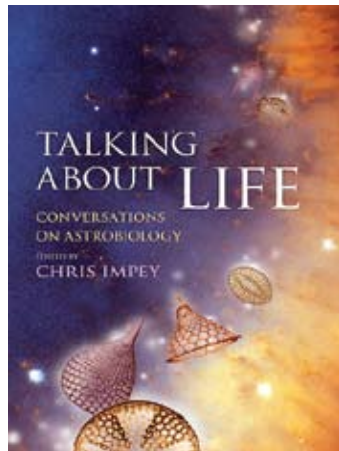
Hardcover, 418 pp., \$29.99

Under better cultural circumstances, conversations on astrobiology would inspire reflections on the beauty and power of life as a negentropic ordering principle in the universe as a whole, as questions concerning the relationship of discrete organisms to larger planetary and cosmic conditions touch on the most fundamental aspects of what Vladimir Vernadsky called the harmonious cosmic mechanism responsible for life.

Alas, science today is dominated by dogmatic laws of universal entropy and statistical probability, and a pervasive pessimism respecting man's role in the universe. So, in addition to providing a broad survey of contemporary research in this important field, Chris Impey's *Talking About Life: Conversations on Astrobiology* at the same time provides a clinical view of the epistemological poverty of mainstream science today.

(Consider this gem from psychobiologist Lori Marino, on the comparison of human beings to other intelligent life on Earth: "I don't think we're qualitatively different. Though we build 747s and chimpanzees make termite sticks, these activities may not be so different on a qualitative level." Really.)

But, given the organization of the book—a series of transcribed oral interviews conducted by Impey with researchers and writers connected to astrobiology—it almost can't fail to be an interesting read, as informal shop-talk by scientists tends to be. Not surprisingly, the better selections come from people doing actual experimental research or field work: people like self-described paleo-bio-geochemo-tectono-strato-sedimentologist



Roger Buick, who gives an absorbing account of searching for signs of ancient life in ancient rocks; or Carolyn Porco, imaging team leader for the Cassini probe, who describes the thrill of trying to untangle Saturn's complex ring structure, and the almost maternal commitment required to oversee planetary robotics missions.

### The Right Questions

Aside from an obvious need for more funding, astrobiology perhaps is most in need of the right questions, questions which go beyond the painfully narrow interpretation of life as a fortuitous interplay of chemical constituents. As an example, the clearly established influence of low frequency, low-intensity electromagnetic fields on the internal regulation of living organisms is one area in need of a systematic research program in the field, especially given the pervasive action of interplanetary electromagnetic fields evident in our own Solar System.

Ultimately, it will be breakthroughs on policy, and the adoption of what Krafft Ehrlicke called humanity's "Extraterrestrial Imperative," that will drive such questions. Indeed, even more interesting than the question of where else in the cosmos we can find signs of life, is: What do we need to know to bring it there?

## Krafft Ehrlicke's Extraterrestrial Imperative

by Marsha Freeman

ISBN 978-1-894959-91-9,

Apogee Books, 2009,

302pp, \$27.95



From this new book the reader will gain an insight into one of the most creative minds in the history of space exploration.

Krafft Ehrlicke's contribution to space exploration encompasses details of new, innovative ideas, but also how to think about the importance and value of space exploration for society.

The reader will gain an understanding of the early history of the space program for which they have helped accomplish, and how Ehrlicke's vision of where we should be going can shape the future.

At this time, when there are questions about the path of the space program for the next decades, Krafft Ehrlicke has laid out the philosophical framework for why space exploration must be pursued, through his concept of the "Extraterrestrial Imperative," and the fight that he waged, over many years, for a long-range vision for the program.

Readers will find it a very imaginative work, and a very up-lifting story.

Krafft Ehrlicke's *Extraterrestrial Imperative* is the summation of his work on encouraging the exploration and development of space. The book contains all of his reasons why we need to get off the planet and explore space.



[www.apogeebooks.com](http://www.apogeebooks.com)

1-888-557-7223