

KIRKUS REVIEWS

TITLE INFORMATION

LEVOLUTION

Cosmic Order by Means of Thermodynamic Natural Selection

Gunter, Michael

Archway Publishing (304 pp.)

\$37.99 hardcover, \$19.99 paperback, \$3.99 e-book

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BOOK REVIEW

A new theory of how energy sculpts order throughout the universe.

Science usually advances in tiny increments within cloistered disciplines through peer-reviewed publications. This debut, though, is audacious in scope and approach. Gunter, a trained ecologist but not an academic, introduces a simple yet profound and largely homespun system that, if proved, would require a paradigm shift across all disciplines. He proposes seven new thermodynamic laws to reconcile the apparent contradiction between the existing second law—entropy, or the dissipation of energy—and increasing order in the cosmos, which he attributes to the operation of natural selection upon all structures, not merely the biological. Levolution, Gunter says, is the energy-driven process of “changing a group or population of existing entities such that they organize into a single new whole, a new entity, a new monad, or new kind of unit”—i.e., particles, atoms, molecules, cells, organisms, populations, solar systems, and galaxies—all in the service of maximizing and speeding the flow of energy to lower potentials: i.e., entropy. Gunter spent 30 years developing his theories and writing this book. He credits and builds upon the work of others, but his synthesis is new, and he has coined several terms as he organized these new laws. He challenges others to prove or disprove his ideas. The text, however, is devoid of mathematical support; the only formula in the book is Einstein’s familiar $E=mc^2$. Gunter has an engaging style and often lightens his subject’s heft: “While the idea of energy’s descent to ‘entropic doom’ or the ‘heat death’ of the universe has been around to depress people for decades, few people really understand how deeply nature is involved in this Entropy project.” Of his proposal for 10 thermodynamic laws, he says, “[T]hey will now fit perfectly on two clay tablets.” Gunter writes clearly and intends the work as “popular science,” though he occasionally uses arcane allusions that will baffle many, such as “Jane’s radius” from gravitational physics and “slits and waves” experiments from particle physics. There is copious intentional repetition, as if drilling the reader in a new language, which in some ways it is. By the end, those who have stuck around will be able to complete many of his sentences.

Provocative and hard to put down, but only for the science savvy.