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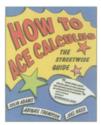
The Atom in the History of Human Thought—Bernard Pullman. Conceptually, atomic history originates in the "Greek miracle" of some 2,500 years ago. Ancient thinkers such as Thales and Democritus were the first to invoke rational explanation rather than transcendent powers in accounting

for natural causes and effects. Pullman criss-crosses the globe to Greece, India, and Europe, weaving ancient philosophies and religious beliefs with atomic theories. The last part of the book is devoted to the "Scientific Atomism" of the 19th and 20th centuries, in which the atom emerged as a concrete concept and antagonistic viewpoints were countered by modern scientists such as Michael Faraday and Max Planck, First published in French. OUP, 1998, 403 p., hardcover, \$32.50.



California Place Names: The Origin and Etymology of Current Geographical Names— Erwin G. Gudde, revised and enlarged by William Bright. The names of some 150,000 Californian cities, towns, ills, waterways, parks, and mountains are here compiled in dictionary format.

Gudde began the arduous task of uncovering the etymology of these appellations some 50 years ago. Bright enriches this fourth edition with his knowledge of Native American languages. Each entry offers a location, meaning, pronunciation, and history. U CA Pr, 1998, 467 p., hardcover, \$45.00.



How to Ace Calculus: The Streetwise Guide—Colin Adams, Abigail Thompson, and Joel Hass. Three mathematics professors combine wits in this companion guide to a typical college course. Beginning with tips for choosing an instructor and a discussion of tactics

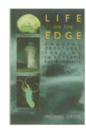
and objectives, the book proceeds to present clear explanations of concepts such as limits, derivatives, and integration. Plenty of illustrative equations and a lively text fueled by good humor combine to make the subject matter a little less daunting. Freeman, 1998, 230 p., illus., paperback, \$14.95.



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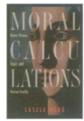
Imagined Worlds—Freeman Dyson. "Science is my territory, but science fiction is the landscape of my dreams," says Dyson, who mingles the two with an appreciation of history as he speculates on a future of scientific and technological advances. Space colonies, computer-assist-

ed reproduction, and radiotelepathy are future scenarios that Dyson ponders, along with their associated ethical dilemmas. Originally published in hardcover in 1997. HUP, 1998, 216 p., b&w illus. & photos, paperback, \$14.00.



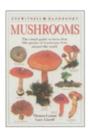
Life on the Edge: Amazing Creatures Thriving in Extreme Environments—Michael Gross. Lurking in the ocean's lowest depths and beneath Antarctic ice are extremophiles: organisms conditioned to withstand the most excruciating circumstances. Until recently, inhospitable places did not

seem likely to shelter the bloom of life. Gross's tour of the globe and even the galaxy seeks out and defines a number of extremophiles, explaining how they survive, and have even come to require, severe stress factors. Of particular interest is a look at some of the technological implications of these organisms' survival skills. Published in German in 1996. Plenum, 1998, 200 p., illus., hardcover, \$25.95.



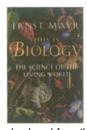
Moral Calculations: Game Theory, Logic, and Human Frailty—László Mérö. Several years ago, readers of SCIENTIFIC AMERICAN were presented with an awkward decision: whether or not to vie for a million dollars. It seems easy, but there was a catch: for every person who entered the contest, the prize

was reduced by one dollar. What to do? This scenario, as well as the ubiquitous Prisoner's Dilemma and the speeding-car game of chicken, is among those Mérö uses to introduce game theory and explain how seemingly rational people make irrational decisions. Mérö's deft, jargonfree text depicts game theory in applications ranging from evolutionary biology to common life decisions, while also assessing the ethical, political, and altruistic issues such applications raise. Copernicus, 1998, 276 p., illus., hardcover, \$28.00.



Mushrooms—Thomas Læssøe and Gary Lincoff. With more than 2,300 full-color photographs, this directory enables readers to distinguish 500 mushrooms worldwide. Fungi are depicted in their natural environment with descriptions of their fruiting season, size, edibility, and

spore deposit color. Tips for correct recognition are augmented by notation of similar species. DK, 1998, 304 p., color photos/illus., flexibinding, \$17.95.



This Is Biology: The Science of the Living World—Ernst Mayr. One of the world's most renowned biologists sets out to enlighten readers about the broad spectrum of the biological sciences, whose scope is often lost on specialists. Mayr surveys the multifaceted world of biology as it has

developed from the time of Aristotle to the modern age, discussing such large topics as evolution, biodiversity, competition, extinction, adaptation, natural selection, and reproduction. Originally published in hardcover in 1997. Belknap, 1998, 323 p. paperback, \$15.95.

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