

Books

Books is an editorial service for readers' information. To order any book listed or any U.S. book in print, please remit retail price, plus \$2.00 postage and handling for each book, to **Science News Books**, 1719 N St., N.W., Washington, DC 20036. To place Visa or MasterCard orders, call 1-800-544-4565. Domestic orders only.

Children of the Ice Age: How a Global Catastrophe Allowed Humans to Evolve—Steven M. Stanley. A prophet of the punctuational model of evolution—which holds that evolution occurs in bursts of activity, as opposed to gradually and continually over time—ponders why the big-brained genus *Homo* appeared so quickly and its ancestor, *Australopithecus*, disappeared after thriving for nearly 1.5 million years. Stanley, a paleobiologist, contends that this came about because of the "catastrophic birth" spawned by the sudden and random effects of the modern ice age in Africa. The ice age caused forested areas to shrink, bringing *Australopithecus* down from its home in the trees and freeing its hands to care for its young. These changes in behavior permitted the growth and evolution of *Australopithecus'* brain. In all, Stanley weaves together the many evolutionary threads that form *Homo sapiens*. Harmony, 1996, 278 p., b&w illus., hardcover, \$25.00.

Dr. Scott's Knee Book: Symptoms, Diagnosis, and Treatment of Knee Problems Including: Torn Cartilage, Ligament Damage, Arthritis, Tendinitis, Arthroscopic Surgery, and Total Knee Replacement—W. Norman Scott. In addition to the topics in his subtitle, Scott, an orthopedist, discusses exercise, prevention of injuries, and recommendations for rehabilitation. The clear text is accompanied by diagrams. Fireside, 1996, 208 p, b&w illus., paperback, \$11.00.

The Dog Who Loved Too Much: Tales, Treatments, and the Psychology of Dogs—Nicholas Dodman. The director of the Tufts University Behavior Clinic, which specializes in domestic animals, probes the world of animal psychology by presenting case studies and methods proven effective in treating unruly and disturbed pets. Dodman contends that excessive aggressiveness, separation anxiety, fears of certain sights and sounds, thunderstorm phobia, and compulsive behaviors such as tail chasing are all treatable. He suggests modifications in behavior, diet, environment, and a controversial pharmacological approach that includes the use of Valium and Prozac. Bantam, 1996, 258 p., hardcover, \$22.95.

Fair Division: From Cake-Cutting to Dispute Resolution—Steven J. Brams and Alan D. Taylor. Whether divvying up food, establishing borders, or distributing items from an estate, the problem of "envyfree" division comes into play. In this book, a political scientist joins forces with a mathematician to present a three-pronged approach to fair division: setting forth explicit properties that characterize different notions of fairness, providing algorithms or preferred positions on a set of issues in negotiations, and illustrating these algorithms with applications to actual situations. Founded on mathematical formulas, which are comfortably presented, the authors' case studies outline applicable fair division schemes. Cambridge U Pr, 1996, 272 p., paperback, \$18.95.

The Gardener's Weed Book: Earth-Safe Controls—Barbara Pleasant. According to Pleasant, many gardeners unwittingly facilitate the growth of weeds by offering favorable conditions for them to thrive. She explains what these conditions are and identifies more than 70 varieties of weeds in depth, providing what she believes is sufficient knowledge to curtail their growth. Storey Comm Inc, 1996, 201 p., b&w illus., paperback, \$12.95.

The Next 500 Years: Life in the Coming Millennium—Adrian Berry. Sea farming, life expectancies of 140 years resulting from the use of superoxide enzymes that protect the body's DNA, and the colonization of the moon and Mars by hoteliers and private industry are among Berry's relatively upbeat prophecies. Berry extrapolates from scientific findings in a number of fields including agriculture, economics, space science, and information technology in rendering these predictions. WH Freeman, 1996, 338 p., hardcover, \$22.95.

Time's Arrow and Archimedes' Point: New Directions for the Physics of Time—Huw Price. Physicists such as Stephen Hawking may need a new vision of time's arrow, claims Price, a philosopher. He proposes an Archimedean vision of time—namely, one that views it in an atemporal manner, from "nowhen." He picks apart a number of areas in the physical sciences, such as thermodynamics, showing how modern physics tends to "explain" time asymmetry by subtly assuming it in the first place. Price also addresses quantum theory, arguing that its full meaning has been obscured by an inappropriate view of the arrow of time, which does not allow for the future's effects on the past. OUP, 1996, 306 p., hardcover, \$25.00.

To order by Visa or MasterCard, call
1-800-544-4565
In D.C. area: 202-331-9653

- What warps when you're traveling at warp speed?
- What's the difference between the holodeck and a hologram?
- What happens when you get beamed up?
- What is the difference between a wormhole and a black hole?
- What is antimatter and why does the Enterprise need it?

Discover the answers to these and many other fascinating questions in *The Physics of Star Trek!*

Basic Books, 1995, 188 pages, 5 1/2" x 8 1/2", hardcover, \$18.50



if

YOU ENJOY WATCHING *STAR TREK*, YOU'RE in good company. Some of the most distinguished physicists in the world, from Kip Thorne to Steven Weinberg and Sheldon Glashow, tune in.

How does the *Star Trek* universe stack up against the real universe? Find out what the series creators got right—and wrong—about science in this fascinating guide by a renowned theoretical physicist.

Anyone who has ever wondered, "could this really happen?" will gain useful insights into the *Star Trek* universe (and, incidentally, the real world of physics) in this charming and accessible guide. Lawrence M. Krauss boldly goes where *Star Trek* has gone—and beyond.

He uses the *Star Trek* future as a launching pad to discuss the forefront of modern physics today. From Newton to Hawking, from Einstein to Feynman, from Kirk to Picard, Krauss leads you on a voyage to the world of physics as we now know it and as it might one day be.

With a foreword by the most renowned Trekker of all (and one-time *Next Generation* bit player), Stephen Hawking, and featuring a section on the top ten physics bloopers and blunders in *Star Trek* as selected by

Nobel Prize-winning physicists and other dedicated Trekkers, this is a volume that will add a whole

new dimension to your enjoyment of the series and to your appreciation of the universe we live in! — from Basic Books

Science News Books PhyStarTrek-H
1719 N Street, NW, Washington, DC 20036
Please send me _____ copy(ies) of *The Physics of Star Trek*.
I include a check payable to Science News Books for \$18.50 plus \$2.00 postage and handling for each book (total \$20.50). Domestic orders only.

NAME _____
ADDRESS _____
CITY _____
STATE _____ ZIP _____
DAYTIME PHONE _____
(used only for problems with order) RB2496

Order by phone for faster service!

1-800-544-4565 (Visa or MasterCard Only)

In D.C. area: 202-331-9653