

The Weekly Newsmagazine of Science

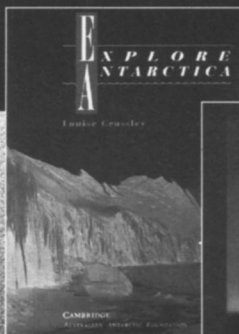
SCIENCE NEWS

November 4, 1995
Vol. 148, No. 19
Pages 289-304



Winging
the Blues

FROM ALIENS TO ANTARCTICA... CAMBRIDGE SCIENCE BOOKS GO TO EXTREMES



Explore Antarctica

Louise Crossley

"...provides an important foundation for understanding the region and its natural history." — *The Bookwatch*

A tour of the Earth's remotest continent reveals its natural environment—geography, geology, ecosystems—and history, including the gripping race to the pole.

1995 112 pp.
0-521-49591-1 Hardback \$39.95
0-521-45566-9 Paperback \$17.95

Extraterrestrial Intelligence

Jean Heidmann

From a discussion of the emergence of primitive biological life in the solar system, the author explains techniques for searching for extraterrestrial life and the results of current projects (including the Search for Extra Terrestrial Intelligence (SETI) project); the expansion of searches for extraterrestrials; the habitable zones in our universe; and what might happen if actual contact takes place.

1995 247 pp.
0-521-45340-2 Hardback \$24.95

New Edition!

Extraterrestrials, Where are They?

Second Edition

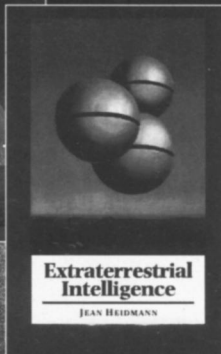
Ben Zuckerman and Michael H. Hart, Editors

From a review of the First Edition...

"...for those interested in questions on the grand scale, this slender book is one of the most interesting and important of the decade..." — *Harlan J. Smith, Science*

Leading experts, including Jared Diamond, Freeman Dyson, Gerald Feinberg, Ernst Mayr, James Oberg, Robert Shapiro, Robert Sheaffer, and Virginia Trimble provide a critical analysis of the plausibility that other intelligent life forms do exist. The second edition benefits from new material on the biological and chemical aspects of the debate.

1995 c.240 pp.
0-521-44335-0 Hardback \$39.95
0-521-44803-4 Paperback \$19.95



Colour

JEAN HEIDMANN

Colour

Art and Science

Trevor Lamb and Janine Bourriau, Editors

"...tells the story of colour wonderfully well. I cannot recommend this beautifully produced and eclectic book too highly. The list of contributors and their subject matter should be sufficient to lure the reader..."

— *Michael J. Morgan, Nature*

To answer our questions on the nature of color, eight experts from different fields of study provide their views. From the humanities, we read about color in art (David Bomford and Bridget Riley), in culture and language (John Gage and John Lyons). On the scientific side, we learn what color means to the physicist (Malcolm Longair), the psychologist (John Mollon), the physiologist (Denis Baylor), and the naturalist (Peter Parks).

The Darwin College Lectures

1995 246 pp.
0-521-49645-4 Hardback \$59.95
0-521-49963-1 Paperback \$24.95

Color and Light in Nature

David K. Lynch and William Livingston

This handsome and informative book provides clear explanations of over one hundred naturally occurring optical phenomena visible to the naked eye, including shadows, halos, water optics, mirages, green flashes, and a host of other spectacles. A wealth of rare and spectacular photographs, many in full color, illustrate these phenomena throughout, with many helpful hints on how the reader can best observe and photograph them.

1995 254 pp.
0-521-43431-9 Hardback \$69.95
0-521-46836-1 Paperback \$29.95

What is Life? The Next Fifty Years

Speculations on the Future of Biology

Michael P. Murphy and Luke O'Neill, Editors

Erwin Schrödinger's book *What is Life?* had a tremendous influence on the development of molecular biology. Outstanding scientists—including Stephen Jay Gould, Manfred Eigen, Christien de Duve, Roger Penrose, Jared Diamond, John Maynard Smith and Lewis Wolpert—present their views on the current central problems and future directions in biology.

1995 202 pp.
0-521-45509-X Hardback \$24.95

Hubble Vision

Astronomy with the Hubble Space Telescope

Carolyn Collins Petersen and John C. Brandt

A superb collection of the most dramatic images taken by HST—from the Solar System and nearby stars to the most distant quasars and inklings of the early Universe—supported by lively and informative narrative.

1995 c.256 pp.
0-521-49643-8 Hardback \$39.95

The Great Comet Crash

The Collision of Comet Shoemaker-Levy 9 and Jupiter

John R. Spencer and Jacqueline Mitton, Editors

"...features contributions by some of the prominent researchers who studied the comet breakup, collision, and aftereffects." — *Sky & Telescope*

A photographic history capturing the drama of a cosmic catastrophe. The editors have assembled the best images from observatories in Hawaii, Arizona, California, Australia, Japan, and Europe to depict the great variety of explosions, plumes, flashes, and rings of debris caused by the impacts. The photos are grouped thematically showing time sequences of the impacts and the phenomena as they appear in different wavebands.

1995 c.128 pp.
0-521-48274-7 Hardback \$24.95

The Quantum Theory of Fields

Volume I: Foundations

Steven Weinberg

Nobel Laureate Steven Weinberg combines his exceptional physical insight with his gift for clear exposition to provide a self-contained, comprehensive, and up-to-date introduction to quantum field theory.

1995 635 pp.
0-521-55001-7 Hardback \$49.95

Bird Song

Biological Themes and Variations

C.K. Catchpole and P.J.B. Slater

Explores the study of bird song with coverage of how song develops, what its message is, and its use in territorial defense and mate selection.

1995 256 pp.
0-521-41799-6 Hardback \$32.95

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AN ALLEGORY OF QUANTUM PHYSICS

Alice in Quantumland

Robert Gilmore



Copernicus, 1995, 184 pages, 6 1/4" x 9 1/2", hardcover, \$18.00

YOU'VE HEARD ABOUT ALICE'S ADVENTURES THROUGH THE LOOKING GLASS. Well, Alice is about to embark on another amazing journey. She's going to shrink again—to the size of a nuclear particle—but she's not going down the rabbit hole. She's headed for Quantumland.

And what is Quantumland? Think of it as an intellectual amusement park smaller than an atom, where every ride, game, and attraction demonstrates a different aspect of quantum mechanics. In this masterful blend of fantasy and science, Robert Gilmore uses the allegory of Alice's travels to make the uncertainty principle, Pauli's principle, high-energy particle physics, and other crucial parts of quantum theory accessible and exciting.

Once in Quantumland, Alice experiences various quantum effects (at one point going backward in time and running into herself). She also meets a number of strange characters who help her (and you) understand the nature of the quantum world. There is:

- the **Uncertain Accountant**, whose attempts to balance the books at the Heisenberg Energy Bank are being flummoxed by energy fluctuations;
- the **Three Quark Brothers**, who take Alice around the floor in one of the Castle Rutherford's famous Collider Dances;
- the **Emperor**, whose conscious mind makes his new clothes real; and more.

Cleverly conceived and written, and delightfully illustrated, *Alice in Quantumland* brings some crucial yet often elusive scientific concepts within reach of the everyday reader. You don't need to know much about mathematics to follow our heroine's escapades. All you need is a taste for intellectual adventure and healthy curiosity about the world around us. —from Copernicus



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Please send me _____ copy(ies) of *Alice in Quantumland*. I include a check payable to Science News Books for \$18.00 plus \$2.00 postage and handling for each book (total \$20.00). Domestic orders only.

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