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AIDS: The HIV Myth — Jad Adams. This science writer describes for the general reader the scientific issues and political turmoil surrounding the effort to find the cause of AIDS. He challenges the theory that the human immunodeficiency virus (HIV) is the sole agent responsible. St Martin, 1989, 244 p., hardcover, \$16.95.

The Fossil Book: A Record of Prehistoric Life — Carrol Lane Fenton and Mildred Adams Fenton. A classic compilation of fossil facts, originally published in 1958, revised and expanded by paleontologists Patricia Rich and Thomas Rich along with Mildred Adams Fenton. For collectors and fossil enthusiasts, this valuable reference explains what fossils are, where they are found, what they mean, how to care for them and where to learn more about them. This edition covers areas of the world, such as China, Australia and South America, that were only briefly mentioned in the original edition. Helps bring the fossil world back to life with more than 150 illustrations and descriptions of the environments where now-fossilized plants and animals once lived. Doubleday, 1989, 740 p., illus., hardcover, \$40.00.

The Mathematical Tourist: Snapshots of Modern Mathematics — Ivars Peterson. The mathematics/physics editor of *SCIENCE NEWS* takes the general reader on a tour of modern mathematics. Enter a world of chaos, cryptography and code breaking for an insider's understanding of the exciting and important discoveries in current mathematical research. Originally published in hardcover in 1988. W H Freeman, 1989, 256 p., color/b&w illus., paperback, \$10.95.

Observing the Constellations: An A-Z Guide for the Amateur Astronomer — John Sanford. Detailed star maps and full-color photographs of every constellation and many galaxies, nebulae and star clusters from Andromeda to Virgo. Telescopic photographs and diagrams supplement unique photographs showing the constellations as they appear to the naked eye. Text describes unusual stars that appear within constellations, tells how to find each constellation and recounts the associated mythology. S&S, 1989, 176 p., color illus., paperback, \$16.95.

The Paleolithic Prescription: A Program of Diet and Exercise and a Design for Living — S. Boyd Eaton, Marjorie Shostak and Melvin Konner. A physician and two anthropologists suggest ways to avoid the "diseases of civilization" and lessen their burden on society by following a diet and exercise regimen that kept our forebears lean, strong and aerobically fit. Originally published in hardcover in 1988. Har-Row, 1989, 306 p., charts & tables, paperback, \$8.95.

Reality's Mirror: Exploring the Mathematics of Symmetry — Bryan Bunch. Beginning with transformational geometry and expanding to detailed explanations of the fourth through eleventh dimensions, group theory and time-reversing mirrors, this book introduces the general reader to mathematical concepts central to an understanding of symmetry. Wiley, 1989, 286 p., illus., hardcover, \$19.95.

Survival in Space: Medical Problems of Manned Space Flight — Richard Harding. Discusses the nature of the space environment, the medical history of manned spaceflight, the current hazards to any space traveler, methods of protection and the consequences of prolonged space travel on the body and mind. The semi-technical book presents data and fascinating stories from U.S. and Soviet missions. Routledge, 1989, 227 p., illus., hardcover, \$22.00.

Toward a New Philosophy of Biology: Observations of an Evolutionist — Ernst Mayr. This professor emeritus of zoology at Harvard argues that biologists must heed the analyses of philosophers, and philosophers must acknowledge the discoveries of biologists, if both are to achieve a full understanding of living organisms. Attempting to strengthen the bridge between biology and philosophy, Mayr offers 28 essays that help clear up the vagueness that persists in biology and proposes a new direction for the philosophy of biology. Originally published in hardcover in 1988. Harvard U Pr, 1989, 563 p., paperback, \$14.95.

Philosophical Consequences of Quantum Theory

Reflections on Bell's Theorem

James T. Cushing & Ernan McMullin, Editors

Einstein argued that quantum theory had to be regarded as fundamentally incomplete. Its inability, for example, to predict the exact time of decay of a single radioactive atom had to be due to a failure of the theory and not due to a permanent inability on our part or a fundamental indeterminism in nature itself.

In 1964, John Bell derived a theorem which showed that any deterministic theory which preserved "locality" (i.e., which rejected action at a distance) would have certain consequences for measurements performed at a distance from one another. An experimental check seems to show that these consequences are not, in fact, realized. The astonishing result is that local deterministic theories of the classical sort seem to be permanently excluded. Not only can the individual decay not be predicted, but no future theory can ever predict it.

The 15 papers in this book wrestle with this conclusion. Some welcome it; others leave open a return to at least some kind of deterministic world, one which must, however, allow something like action-at-a-distance. How much like it? One thing is certain: We can never return to the comfortable Newtonian world where everything that happened was, in principle, predictable and where what happened at one measurement site could not affect another set of measurements being performed light-years away, at a distance that a light-signal could not bridge. — *from the publisher*

Univ. of Notre Dame Press, 1989, 314 pages, 9" x 6", paperback, \$19.95 ISBN 0-268-01579-1

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