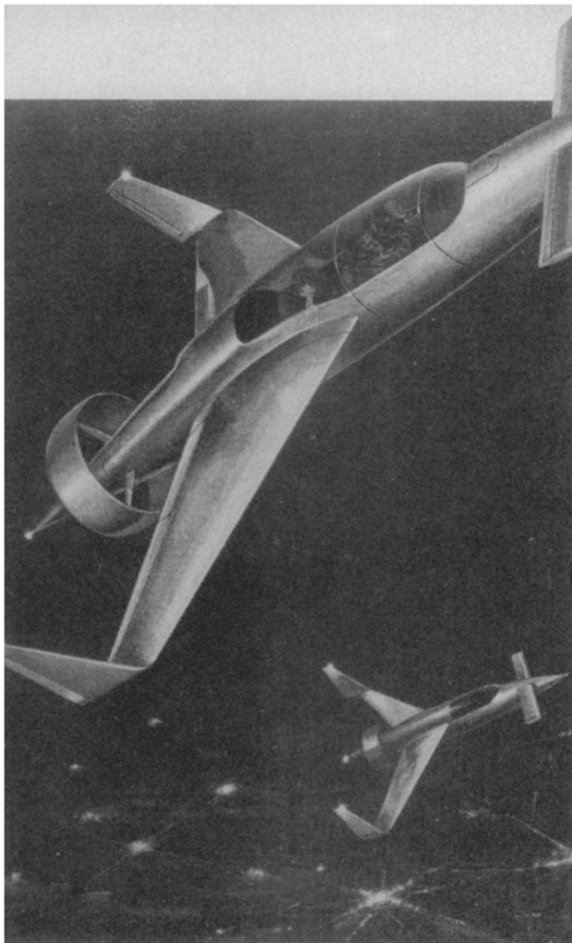


SCIENCE NEWS

FEBRUARY 20, 1982
VOL. 121, NO. 8

CONNECTIVE
TISSUE
DISEASE



Facts and Future Fantasy

Drawing by Cal Sacks from 2081: A Hopeful View of the Human Future by Gerard K. O'Neill® 1981, published by Simon & Schuster. Used with permission.

THE BODY MACHINE: Your Health in Perspective—Christiaan Barnard and John Illman, Eds. This beautifully illustrated book looks at the human body system by system, explores the way this complicated machine grows, develops and regulates itself. Crown, 1981, 256 p., color/b&w illus., \$19.95. [1]

CLIMATES PAST AND PRESENT: Readings from American Scientist—Brian J. Skinner, Ed. The record of climatic variations as read from the geological record and the factors that control the climate today including human influence. W Kaufmann, 1981, 135 p., color/b&w illus., paper, \$8.95. [2]

THE ENCHANTED LOOM: Mind in the Universe—Rober Jastrow. Recaps the astronomical setting for human existence and the early history of life and then focuses on intelligence and the brain. Tells how the brain evolved, the way it works, how it balances instinct and reason and "what it is evolving into." S&S, 1981, 183 p., illus., \$13.95. [3]

ENGINEERING IN THE ANCIENT WORLD—J. G. Landels. Discusses technological achievements of the Greeks and Romans to give the general reader insight into the outstanding mechanical skills of these civilizations. Originally published in hardback in 1978. U of Cal Pr, 1981, 224 p., illus., paper, \$4.95. [4]

THE EPILEPSY FACT BOOK—Harry Sands and Frances C. Minters. Sponsored by the Epilepsy Foundation of America and written for the layman in nontechnical language, this book examines what epilepsy is, its causes, forms, diagnosis and treatments (traditional and experimental), and focuses on how to live with epilepsy. Originally published in hardback in 1979. Scribner, 1981, 116 p., illus., paper, \$4.95. [5]

GENERAL RELATIVITY FROM A TO B—Robert Geroch. Explains for the general reader Einstein's theory of general relativity—what this theory is, how it works, what it has to say, what the physical phenomena are with which it deals and what its predictions and applications are. U of Chicago Pr, 1978, 225 p., illus., \$12.95, paper, 1981, \$5.95. [6]

GENES, MIND, AND CULTURE: The Coevolutionary Process—Charles J. Lumsden and Edward O. Wilson. An attempt to develop a theory of gene-culture coevolution. The authors examine the steps that lead from genes through mind to culture and develop explicit models that connect individual mental development to culture and culture to genetic evolution. Harvard U Pr, 1981, 428 p., charts and graphs, \$20. [7]

GREEN WISDOM—Arthur W. Galston. These readable essays by an outstanding botanist demonstrate the remarkable behavioral strategies built into plants. Behavior is defined as the evolutionary development of response patterns that favor an organism for survival when challenged by potentially adverse environmental forces. Basic, 1981, 217 p., illus. by Lauren Brown, \$12.95. [8]

GROWING & USING HERBS SUCCESSFULLY—Betty E. M. Jacobs. For the novice and the experienced herb grower gives the basics of herbs, herb growing and marketing. Tells how to make herb products. Garden Way Pub, 1981, 223 p., line drawings by Charles H. Joslin, paper, \$6.95. [9]

THE HERPES BOOK—Richard Hamilton. The herpes virus is one of the most prevalent viral diseases. To most infected people it brings discomfort in the form of blister-like sores. Herpes does not respond to any currently known form of therapy; once a person is infected, the virus remains for life. This book provides basic information about herpes, tells how to cope with the virus and how to prevent or minimize its possible complications. JP Tarcher (HM), 1980, 206 p., \$9.95, paper, 1981, \$4.95. [10]

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IN THE BEGINNING—Isaac Asimov. Considers verses of the Bible line by line and word by word; discusses the content and meaning and compares them with the scientific view that pertains to the biblical passage. Concentrates on the first eleven chapters of Genesis. Crown, 1981, 234 p., \$10.95. [11]

LIGHT AND ITS USES: Making and Using Lasers, Holograms, Interferometers, and Instruments of Dispersion—Introductions by Jearl Walker. These articles from The Amateur Scientist department of *Scientific American* are, according to the preface, the perfect introduction to science for tinkerers. Step-by-step instructions are given for these projects in optics. WH Freeman, 1980, 147 p., illus., paper, \$8.95. [12]

NATIONAL PARKS OF THE U.S.A.—James V. Murfin. A photographic excursion through all 40 national parks, from the Great Smoky Mountains and the Shenandoah to the incomparable Yosemite and the newly founded Channel Islands, with text describing the facts, folklore and history of each park. Mayflower Bks, 1981, 320 p., color illus., \$25. [13]

THE PHYSICIANS' DRUG MANUAL: Prescription and Non-prescription Drugs—Rubin Bressler et al., Eds. This book, intended for the general reader, presents the actual drug information tables that physicians use in their daily practice of medicine as well as material written especially to help the lay reader understand the more technical information. These facts are intended to reinforce the information provided by your doctor and pharmacist. Doubleday, 1981, 1213 p., color illus., \$17.95, thumb indexed \$19.95. [14]

PROGRAMS OF THE BRAIN: Based on the Gifford Lectures, 1975-7—J. Z. Young. Shows how various parts of the brain work together to produce a unified operating system, based on the hypothesis that the most important acts of human life are responses to other people. Oxford U Pr, 1978, 325 p., illus., \$19.95, paper, 1981, \$5.95. [15]

SPACE, TIME, AND GRAVITY: The Theory of the Big Bang and Black Holes—Robert M. Wald. Presents our present-day ideas of space, time and gravity. Explains how, in Einstein's theory of general relativity, gravitation is described in terms of the curved geometry of spacetime. Discusses the implication of these ideas for the universe—its origin, evolution and large-scale structure—and examines gravitational collapse and black holes. U of Chicago Pr, 1977, 131 p., illus., \$10.95, paper, 1981, \$4.95. [16]

SUPER INSULATED HOUSES AND DOUBLE ENVELOPE HOUSES: A Survey of Principles and Practice—William A. Shurcliff. Describes and compares these two types of houses in general terms. Specific houses are described in detail. Explains the main principles used, questions the merits of individual design features, suggests possible improvements. Lists the main organizations and individuals involved in this type of building. Brick Hse Pub, 1981, 182 p., illus., \$19.95, paper, \$13.95. [17]

2081: A Hopeful View of the Human Future—Gerard K. O'Neill. The scientist who originated the space-colony predicts the future. This book is in four parts. The first discusses the lessons that can be learned from the colorful history of earlier attempts at predicting the future; the second describes five developments that the author believes will determine, alone and in combination, the course of the next hundred years; the third views the world of 2081; and the fourth explores the most exciting developments of a century from now that are just at the limits of possibility and some that are, perhaps, well beyond those limits. S&S, 1981, 284 p., illus., \$13.95. [18]

THE VISIONARY EYE: Essays in the Arts, Literature, and Science—J. Bronowski. The main emphasis is on the arts and humanities in these essays by Bronowski, who treated art and science as the same expression of the human imagination. MIT Pr, 1978, 184 p., illus., \$12.50, paper, 1981, \$4.95. [19]

BOOKS THAT ANSWER QUESTIONS.

Q: Is this the only universe?

A: Reasoning from quantum theory, some scientists now believe there may be other universes in addition to our own—perhaps an infinite number of them! All of the universes, including ours, would be embedded in a mind-boggling entity called "superspace."
(See *Other Worlds*)

Q: What common creature is a direct descendant of the dinosaurs?

A: There may be one perched on your windowsill right now—the *bird*. Not only are birds direct descendants of the dinosaurs, but some biologists think they're even eligible for the title "living dinosaurs." (See *Extinction*)

Q: What fish goes fishing complete with line and bait?

A: It's called an anglerfish. It looks like a rock, and thus camouflages itself on the ocean bottom. Coming out of its mouth is a thin, wiggly structure that resembles a piece of string. At the end of the "string" is another structure that looks exactly like a tiny fish—an exquisitely accurate fake complete with eye-like spots of pigment, fins and tail. When an unsuspecting fish tries to snare the decoy, the anglerfish makes a quick meal of the visitor.
(See *The Panda's Thumb*)



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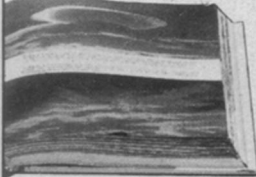


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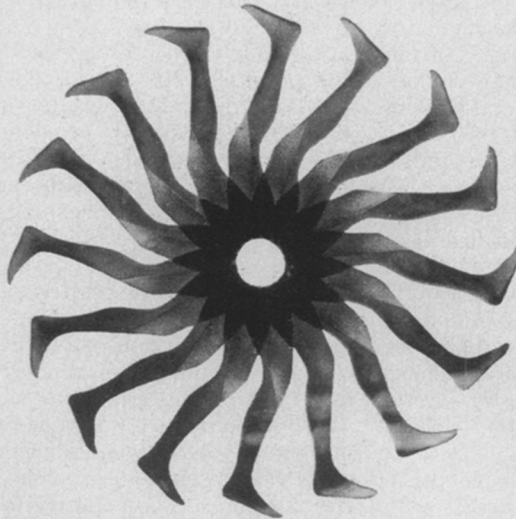
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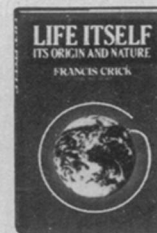
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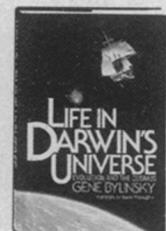
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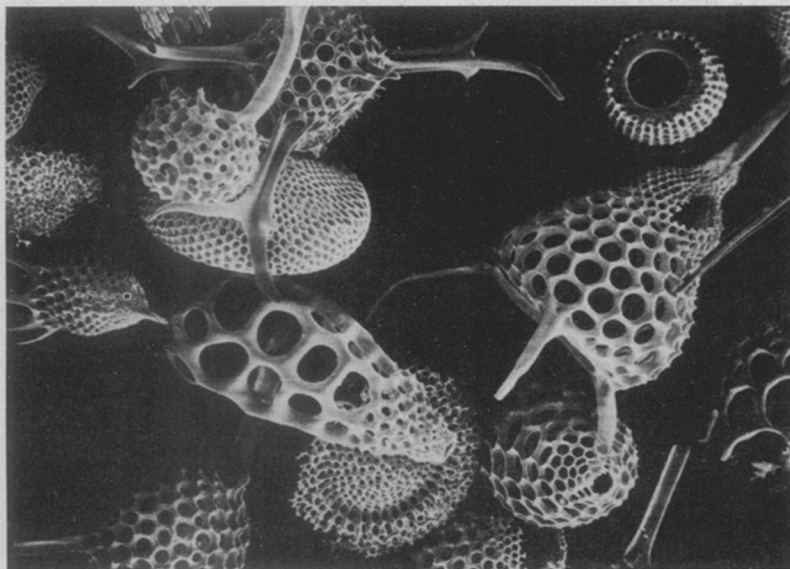


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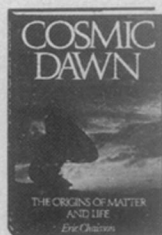


Magnify the commonplace and it often becomes exquisitely beautiful. These are silica and lime shells secreted by one-celled animals—shown here 1000 times larger than life. From: *Life On Earth: A Natural History* by David Attenborough. Photograph: Manfred Kage/Bruce Coleman, Ltd.

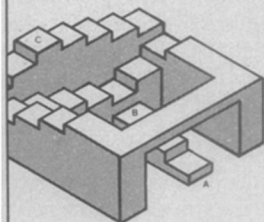
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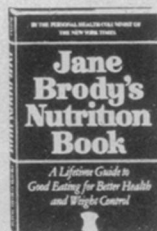
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