

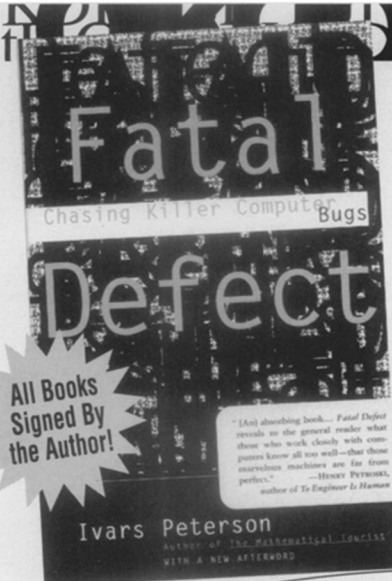
The Weekly Newsmagazine of Science

SCIENCE NEWS

July 13, 1996
Vol. 150, No. 2
Pages 17-31

**Simple
Routes to
Better
Thinking**





An airplane crashes killing 87 passengers. A cancer patient receives a fatal dose of radiation from a machine designed to be foolproof. The ATMs at a New York bank debit customers twice their actual withdrawals, resulting in a loss of millions of dollars. In each case, the culprit was a computer bug, a software error or design defect that may escape detection until it erupts into the real world with sometimes catastrophic results.

This arresting and at times terrifying book tells us just how prevalent these defects are and how they are multiplying as computers become more sophisticated and more deeply embedded in our daily lives. It is also a riveting portrait of the men and women who find and "exterminate" those bugs, whether they occur in pocket calculators or nuclear reactors.

Fatal Defect reveals what you should know about the computers in our lives. Read it before you buy a computer, use a cash machine, or book an airplane flight. Then pray that one of its real-life heroes was on the job.

—from Vintage

Vintage, 1996, 268 pages,
5 1/4" x 8", paperback \$13.00

Science News Books,
1719 N Street, NW, Washington, DC 20036

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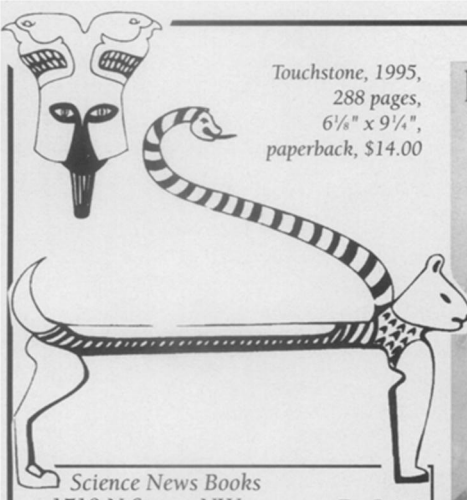
Fatal Defect, \$13.00 **The Mathematical Tourist, \$14.95**
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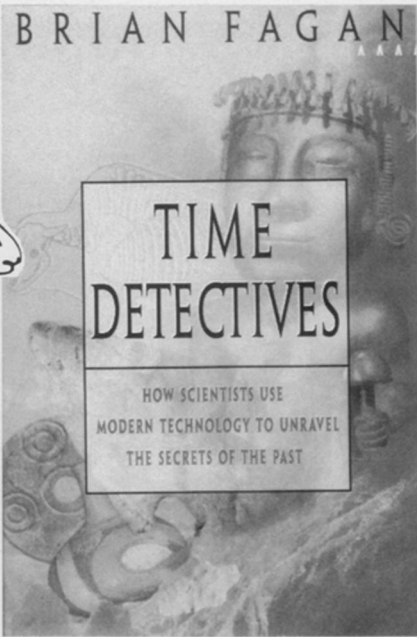
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Touchstone, 1995,
288 pages,
6 1/8" x 9 1/4",
paperback, \$14.00



Today's archaeologists are no longer simply treasure hunters but time detectives. Armed with formidable technological advances and an interdisciplinary team approach, archaeologists are re-creating the age-old stories of lost human worlds.

In *Time Detectives*, Brian Fagan takes us around the world and through more than 15,000 years of human history, as we visit the sites of some of the most breathtaking and significant finds of recent years:

- ▲ What the excavated gardens of 18th-century Annapolis reveal about white and black life in Colonial America
- ▲ How examination of the site of a bison hunt shed light on the life of the Plains Indians
- ▲ What the excavation of the earliest Bronze Age shipwreck taught scientists and historians about trade in the eastern Mediterranean
- ▲ How the discovery of an ancient farming system in the Andes revolutionized agriculture in that area today

A fascinating journey into the world of archaeology today, *Time Detectives* shows us not only how the past can be recaptured but also how our knowledge and understanding of the past expands our vision of human experience today. —from Touchstone

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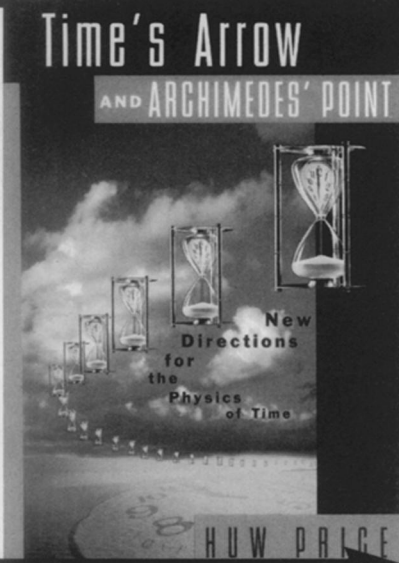
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Oxford University Press,
1996, 306 pages,
6 1/4" x 9 1/2",
hardcover,
\$25.00



Why is the future so different from the past? Why does the past affect the future and not the other way around? What does quantum mechanics really tell us about the world? In this important and accessible book, Huw Price throws fascinating new light on some of the great mysteries of modern physics and connects them in a wholly original way.

Price begins with the mystery of the arrow of time. Why, for example, does disorder always increase, as required by the second law of thermodynamics? He shows that for over a century, most physicists have thought about these problems the wrong way. Misled by the human perspective from within time, which distorts and exaggerates the differences between past and future, they have fallen victim to what Price calls the "double standard fallacy": proposed explanations of the difference between the past and the future rely on a difference that was slipped in at the beginning, when physicists themselves treated the past and future in different ways. To avoid this fallacy, Price argues, we need to imagine a point outside time—an Archimedean "view from nowhen"—from which to observe time in an unbiased way.

Offering a lively criticism of many major modern physicists, including Richard Feynman and Stephen Hawking, Price shows that this fallacy remains common in physics today.

Price then turns to the greatest mystery of modern physics, the meaning of quantum theory. He argues that in missing the Archimedean viewpoint, modern physics has missed a radical and attractive solution to many of the apparent paradoxes of quantum physics.

Time's Arrow and Archimedes' Point presents an innovative and controversial view of time and contemporary physics. In this exciting book, Price urges physicists, philosophers, and anyone else who has ever pondered the mysteries of time to look at the world from the fresh perspective of Archimedes' point and gain a deeper understanding of ourselves, the universe around us, and our own place in time.

—from Oxford University Press

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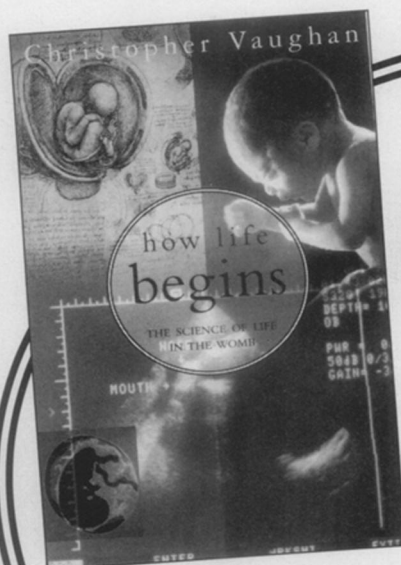
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HowLifeBeH

Please send me _____ copy(ies) of *How Life Begins*. I include a check payable to Science News Books for \$23.00 plus \$2.00 postage and handling for each book (total \$25.00). Domestic orders only.

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Times Books,
1996,
290 pages,
6 1/4" x 9 1/2",
hardcover,
\$23.00

Do babies dream in the womb, and if so, what about? Why do people have that little groove between their upper lip and their nose? Does it do any good to pipe in Bach or Berlioz to the genius-in-training? Why does a fetus open its eyes in the womb when there's nothing to see? What starts labor: baby, mother, or placenta?

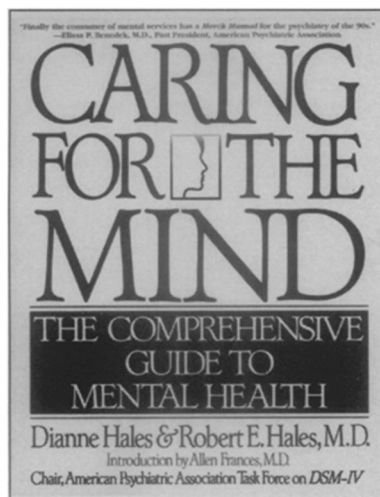
Until fairly recently, the first 9 months of life inside the womb had been a mystery to those of us outside it. With the advent of ultrasound technology and other imaging techniques, a window into that hidden world has been opened.

In *How Life Begins*, science journalist Christopher Vaughan provides a fascinating glimpse of fetal development through the advancement of medical technology and interviews with leading researchers. He goes beyond the usual information in books for expectant parents. For those of you who want to know more than how fast the fetus is growing, when it will start to move, and how much more weight Mommy is going to gain, here is a month-by-month guide to what your new baby is seeing, hearing, and dreaming about and how it's accomplishing the miracle of preparing to be human.

How Life Begins focuses on the experience of the embryo and fetus, and provides an entertaining and informative guide to the long and fascinating journey from single cell to plump and bright-eyed baby.

—from Times Books

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Bantam Books, 1996, 875 pages,
7 1/8" x 9 1/8", paperback, \$25.95



"Finally, the consumer of mental services has a Merck Manual for the psychiatry of the 90s."

—Elissa P. Benedek, M.D.
Past President, American Psychiatric Association

In the course of a lifetime, one of every three people develops a mental disorder. Problems of the mind touch the lives of more persons than illnesses such as heart disease and cancer.

This remarkable book presents the art and science of caring for the mind. It is both a compendium of mental health and mental disorders and an indispensable guide to what can be done to help. Combining extensive, insightful discussions with practical information, it tells readers the nature of each condition, how it feels, what causes it, signs and symptoms, when to seek help, diagnosis, state-of-the-art treatment (therapy, medication, self-help), risks and complications, impact on relationships, and prognosis.

Vivid case histories further illuminate the chapters.

Readers will find a wealth of information on • depressive disorders • bipolar illness • anxiety disorders • obsessive-compulsive disorders • substance abuse and dependence • alcohol abuse • attention disorders • sleep disorders • schizophrenia and other psychotic disorders • dissociative disorders • cognitive disorders • personality disorders • suicidal behavior • aggressive and violent behavior • psychosomatic disorders • mental health problems in the elderly • mental health problems in children.

—from Bantam Books

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CaringMind

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One might expect that a "scientific conference" devoted to people who have reported being kidnapped by "little green men" would be dismissed out of hand. But the conference was to be held at the Massachusetts Institute of Technology and would have as its chairmen a Pulitzer Prize-winning Harvard psychiatry professor and a professor of physics from M.I.T.

C.D.B. Bryan attended the conference throughout its five days. He approached the subject with no prior stand, no agenda, and an open (if slightly skeptical) mind.

As the conference progressed, he was astonished by the quality of the stories told by the hundreds of men and women who came forward hesitantly and reluctantly with their utterly amazing—and utterly convincing—accounts of having been abducted.

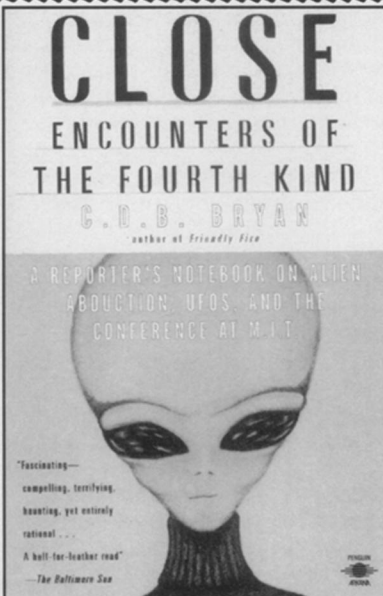
What most astonished Bryan were the similarities found again and again in these accounts and the consistency of their details. As the Harvard professor John E. Mack asked at the conference, "If what these abductees are saying isn't happening to them, then what is?"

This question—and the possible answers—are at the center of this richly explicit, serious, and riveting book.

Bryan re-creates the conference. He interviews ufology's most prominent psychiatrists, psychologists, hypnotherapists, researchers, physicists, physicians, and folklorists. He interweaves throughout the testimony of the abductees themselves, who tell us their stories in chilling detail.

Close Encounters of the Fourth Kind is a detailed, objective exploration—the most concrete to date—of one of the enduring amazing mysteries of our time. It is a book that will equally fascinate believers and nonbelievers

—from Penguin



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Penguin, 1995,
476 pages,
5" x 7 1/4",
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