

The Weekly Newsmagazine of Science

SCIENCE NEWS

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Slice-and-Splice Antibodies

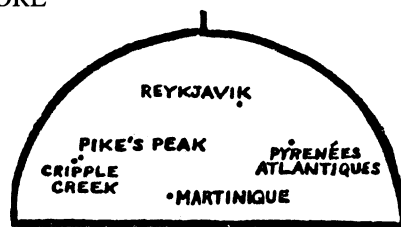
The Trigonometric Travelogue

Serious Science Simplified:

- how to calculate the air distance from Tokyo to Paris
- how to calculate the time of sunset with no almanac
- how to calculate the area of South America
- how to calculate which compass point faces Mecca
- AND MUCH MORE

Gerstell sits on the beach watching the airplanes land. She remembers noticing in her childhood that the sound source always seems to be behind the airplane. Today she uses her thumb to measure the angle between the two. Making reasonable assumptions about the speed of sound, she explains her conclusion that the airplane must be going 130 mph. Then she phones the airport. Eventually someone tells her that a 747 does 140 mph just before landing. She feels very pleased.

- condensation of a section of the book



If a Satellite Appears On the Horizons Of

Its Altitude Above Earth's Surface Is At Least

Katmandu and Timbuktu	1,250 miles
Timbuktu and Dien Bien Phu	2,080 miles
Dien Bien Phu and Kalamazoo	3,530 miles
Kalamazoo and Lima, Peru	500 miles
Lima, Peru and Katmandu	16,000 miles

The Trigonometric Travelogue * 5½ x 8½, 192 p, hardbound
 Written by MIMI GERSTELL * Typeset by MINERVA GRAPHICS
 Produced by PICO BEACH BOOKS, PO Box 67, Revere, MA 02151
 Priced by CHRISTOPHER COLUMBUS at \$14.92 retail

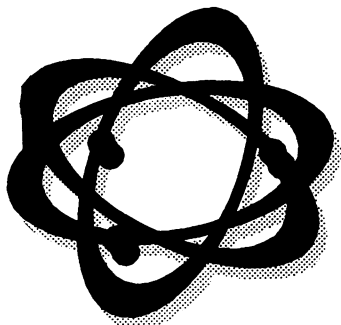
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INTERACTIONS

A Journey Through the Mind of a Particle Physicist and the Matter of This World

Sheldon Glashow, Nobel Laureate and Harvard professor, brings quarks to the people and carries us deep into the subatomic micro-world, showing how colorful, simple and elegant it really is. *Interactions* examines the ultimate structure of matter - and takes everyone with a thirst for knowledge on a fascinating journey into both the secrets of the universe and the searching mind of one of America's foremost scientists.

In an easy-to-read, witty and insightful book complete with dozens of charts and playful cartoons, Glashow explains the theories, controversies, false leads and true breakthroughs of the particle game. With detailed discussions of the more complex concepts set apart from the general text, Glashow traces the history of modern physics from the momentous discoveries of Einstein and Bohr in the early years of the century right up to the latest mind-bending ruminations of today's "high-strung" theoretical physicists.

**by Nobel Prize Winner
 Sheldon L. Glashow
 with Ben Bova**

- from the publisher

Warner Communications Co.,
 1988, 345 pages,
 9¼" x 6", paperback, \$12.95
 ISBN 0-446-38946-3

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Paradigms Lost

Images of Man in the Mirror of Science

By **John L. Casti**

"Casti conveys all the excitement and wonder associated with scientific discovery."

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Morrow, 1989, 565 pages, 9½" x 6½", hardcover, \$22.95
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Paradigms Lost presents an easy-to-grasp overview of science's answers to the great questions as we understand them today. The book consists of six chapters, each devoted to a case study of one of the major mysteries of modern science: the origin of life on planet Earth, the real sources of human behavior and social patterns, how we acquire language, the fundamental nature of our thinking processes, the possible existence of intelligent life elsewhere in the universe, and the impact of our own scrutiny on what we observe as real. *Paradigms Lost* gives a complete and readable account of the competing positions in the important debates in progress on each of these issues. But the grand unifying theme of these chapters is to ask what, if anything, is unique about human beings.

Each chapter is structured in the form of a jury trial. The conventional scientific wisdom on each topic is presented by the Prosecution. The alternative views on the question are then presented by the Defense. After the summary arguments, Casti steps in to act as a juror, casting his ballot for one side or the other and offering an explanation of how he voted. The author intends that his readers also serve on the jury by deciding for themselves on these questions.

— from the publisher



Deep Time . . . is the past — an epic journey undertaken by the most unlikely of heroes. Through the imaginary eyes of a proton born in the maelstrom of genesis, we are shown — lyrically and scientifically — the unfolding of all existence. As our proton passes through time and space, we are on hand for the birth of stars, and for the construction of galaxies along glowing highways of "cosmic string." Finally, after skirting disaster at the edge of a black hole, we come to the third planet of a yellow sun — Earth, where we will witness the evolution of man. *Deep Time* . . . is a unique picture of the universe that pulls together the many threads of speculation about universal realities into a logical, comprehensible whole. David Darling's own theory is both startling and satisfying, and the rich voice with which he tells his story makes even the most complex material powerful and clear.

— from the publisher

The Journey of a
Single Subatomic Particle
from the Moment of Creation
to the
Death of the Universe
and Beyond

By **David Darling**

Delacorte, 1989,
192 pages, 5½" x
8½", hardcover,
\$17.95 ISBN
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