



Science Service Publication
Volume 151, No. 17, April 26, 1997

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SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$49.50 for 1 year or \$88.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, 1719 N Street, N.W., Washington, D.C. 20036. Preferred Periodicals postage paid at Washington, D.C., and additional mailing office. POSTMASTER: Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided. Copyright © 1997 by Science Service. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♻️ Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

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P.O. Box 1925, Marion, Ohio 43305
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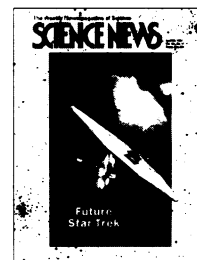
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Cover: Although the Hubble Space Telescope was upgraded just 2 months ago, astronomers are already hard at work on its successor. Dubbed the Next Generation Space Telescope, this device would feature a primary mirror two to three times the diameter of Hubble's and might record some of the earliest flickers of starlight in the cosmos. A large sun shield would keep the telescope cold enough to make observations in the infrared. (Illustration: Ball Aerospace)



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Letters

Eurafrican gene mix and cancer risk

I concur with Mark H. Schiffman's "inevitable middle position, with genes and environment interacting to a greater or lesser extent for each malignancy, but always interacting" (Letters, SN: 2/1/97, p. 67). Though a generally unassailable rationale for the etiology of many malignancies, this conclusion is not truly linked to his chain of argument.

There is an inherent fallacy in taking at face value the "juxtaposition" of the two facts listed in the letter: "that prostate cancer remains rare in Africa and that black U.S. men have one of the highest incidences in the world, higher than that of white U.S. men." While the various indigenous populations of sub-Saharan Africa (to which I believe the letter refers) are of course "black," they are genetically different from "black U.S. men."

The slave trade, which was the origin of the black populations in the Americas, drew disproportionately from black ethnic groups

in the West African coastal areas. Moreover, these black populations received substantial genetic infusions from white plantation and factory owners, as well as overseers. Since the genes accounting for negroid body features are dominant, they may mask the close genetic relatedness of "black" and "white" U.S. populations.

It could be argued that the reproductive mingling of sub-Saharan black populations and European white populations in North America may have produced a genetic crossing (the present U.S. black population) that has an inherent predisposition to prostate cancer. However, males in other black or dark-skinned populations in the Americas, such as the Caribbean countries and Brazil, are not known to display an unusually high incidence of prostate cancer.

It is also possible—and perhaps more likely—that socioeconomic and culturally transmitted lifestyle factors may account for, or are significant contributors to, the very high incidence of prostate cancer in U.S. black males.

For example, the predominant dietary pattern of U.S. black populations is very high in fatty foods, a parameter that has been implicated in elevated prostate cancer incidence. This is possibly exacerbated by the largely urban lifestyles of the U.S. black populations—now sedentary, but consuming a diet originally adapted to heavy physical labor.

Joseph C. Arcos
Clinical Professor Emeritus
Tulane University School of Medicine
Falls Church, Va.

Best wishes

I just received the 75th anniversary issue (3/1/97) and thought you might be interested in knowing that SCIENCE NEWS has been in my family for 75 years.

My father, Earl Berger, started subscribing to SCIENCE NEWS LETTER when it was first published. I was born in 1926, and my earliest memories are of my father reading it to us. He

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Books

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Diabetes: The Most Comprehensive, Up-to-Date Information Available to Help You Understand Your Condition, Make the Right Treatment Choices, and Cope Effectively—David M. Nathan with John F. Lauerman. Written more as a long talk with your physician, dietician, and psychologist than as a guidebook, this volume anticipates the questions and concerns regarding insulin, associated diseases, and diet a newly diagnosed diabetes patient may have and answers them with clarity. Nathan, whose wife has type I diabetes, is also careful to address lifestyle and emotional changes. Times Bks, 1997, 283 p., paperback, \$14.00.

Fire on Earth: How Asteroid and Comet Collisions Have Shaped Human History—And What Dangers Lie Ahead—John Gribbin and Mary Gribbin. Meteor impacts and comets like Shoemaker-Levy are recent topics of both newspaper stories and movie dramas. But what is the actual history of meteor and comet collisions, and what future dangers do they really pose to the residents of Earth? The Gribbins address these issues and others relative to the demise of the dinosaurs—evidence of which they believe exists in a crater in the Yucatán peninsula—as well as other encounters with material from outer space. Originally published in hardcover in 1996. St Martin Griffin, 1997, 264 p., paperback, \$12.95.

The Green Kitchen Handbook: Practical Advice, References, and Sources for Transforming the Center of Your Home Into a Healthy, Livable Place—Annie Berthold-Bond. Cooks who want to shy away from artificial foods and chemicals and who favor "sustainable" foodstuffs and sound nutrition will find the tools for doing so in this guide. Readers learn how to create a root cellar, prepare chemical-free cleansers, and avoid excess packaging among other things. HarpC, 1997, 278 p., paperback, \$15.00.

In the Theater of Consciousness: The Workspace of the Mind—Bernard J. Baars. By melding developments in pertinent fields, Baars relays the latest strides made in formulating a unified theory of how consciousness works. He builds his argument on a "theater model" called Global Workspace theory (GW theory), which posits that consciousness requires a central workspace much like a stage in a theater. GW theory is based on the idea that there is no centralized command center controlling the detailed workings of the brain; instead, the adaptive networks of the brain are ruled by their own aims and contexts, which are influenced by sensory projections. Baars peeks into the scientific method behind this mystery and involves readers in demonstrations used by scientists in their quest. OUP, 1997, 193 p., color plates/b&w illus., hardcover, \$25.00.

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Science and the Founding Fathers: Science in the Political Thought of Thomas Jefferson, Benjamin Franklin, John Adams, and James Madison—I. Bernard Cohen. If one looks carefully at the Declaration of Independence, hints of Newtonian theory can be gleaned from its opening lines. How can this be? Cohen's treatise on how early American politicians incorporated their knowledge of and reverence for science into their political life searches a wealth of U.S. history for scientific innuendo in the political statements and ideals of Thomas Jefferson and Benjamin Franklin, among others. Originally published in hardcover in 1995. Norton, 1997, 368 p., b&w illus., paperback, \$15.95.

The 20-Minute Gardener: The Garden of Your Dreams Without Giving Up Your Life, Your Job, or Your Sanity—Tom Christopher and Marty Asher. Imagine weeding only 1 hour a year or finding choice rose clippings in the local graveyard. Although offbeat, the gardening advice provided here is useful for anyone looking for a presentable garden consistent with his or her lifestyle and skills. Information on organic techniques for deterring pests and building a composting box in 20 minutes is blended with lists of easy-to-grow plants and methods for growing nighttime gardens. Random, 1997, 223 p., hardcover, \$19.95.

Virtual Archaeology: Re-creating Ancient Worlds—Maurizio Forte and Alberto Siliotti, eds. While archaeologists have accrued countless remnants of thousands of ancient sites around the world, their discoveries are often only small pieces of what once was. Through computer modeling, archaeologists are now able to reassemble their finds. In these pages, photos, maps, and satellite images of artifacts and sites are accompanied by text about their significance and background, as well as three-dimensional virtual images of many ancient places, such as Pompeii, Copán, the Tomb of Nefertari, Pueblo Bonito, and ancient Japan. Abrams, 1997, 294 p., color photos, hardcover, \$49.50.

What Will Be: How the New World of Information Will Change Our Lives—Michael Dertouzos. At the dawn of the millennium, the head of MIT's Computer Science Lab forecasts how innovations in information technology will change our future to a degree rivaling the Industrial Revolution. Dertouzos expects that we will have "bodynets" that allow us to make phone calls and pay bills anywhere, speech recognition keyboards that make computer menus and windows obsolete, and nonlethal war, as terrorism moves on-line. HarperEdge, 1997, 336 p., hardcover, \$25.00.

Where Does the Weirdness Go? Why Quantum Mechanics Is Strange, but Not As Strange As You Think—David Lindley. Drawing on recent advances in our understanding of complex systems, Lindley explains why objects in the world around us do not seem to display the puzzling quantum mechanical qualities of the microscopic particles of which they are made. At the level of individual electrons and photons, objects can apparently occupy contradictory states at the same time, as in the case of Schrödinger's alive-and-dead cat. Lindley shows how a detailed depiction of macroscopic objects pushes the underlying quantum strangeness into the background—so that real cats must be dead or alive and never anything in between. Originally published in hardcover in 1996. Basic, 1997, 251 p., b&w illus., paperback, \$13.00.

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was an intelligent man and very interested in science, but because he was born to a poor family, he did not have the opportunity to pursue his interests. I learned the value of SCIENCE NEWS from him at a very early age; where else could I keep abreast of the latest developments and discoveries in all fields of science every week as they developed?

Because I was always tinkering with scientific experiments in the basement of our home, my father gave me a subscription to *Things of Science*. It became a Rosetta Stone for my adventures into science. I also remember listening to the radio program "Adventures in Science" on KDKA in Pittsburgh.

I still subscribe to SCIENCE NEWS and join you in our mutual birthday party.

Robert L. Berger
Gainesville, Fla.

It is good to see that someone still has a reasonable perspective on the direction, motivation, and results of modern science. Thanks for including "Dr. Seeker's Future Imperfect" (p. S25) in your retrospective.

David Shephard
Woods Hole, Mass.

Much as I appreciate Richard Monastersky's reporting and editorial insight into the earth sciences, I feel he is well off the mark on several points in his 75th anniversary article (p. S20).

First: the Cretaceous-Tertiary (KT) meteorite impact may appear catastrophic to a layperson, but it is purely uniformitarian to a geoscientist. The issue here is one of the inverse relationship between magnitude and frequency. The awareness of small, medium, and large bolide impacts of decreasing likelihood has been a part of the geoscience consciousness for decades.

Second: The significance of rare, high-magnitude events was well-established long before the Alvarez' work (consider J. Harlan Bretz and the Channelled Scablands as an example).

Third: Although the evidence for a KT impact seems incontrovertible, evidence that it alone caused all of the biotic change on which the KT boundary is defined is very questionable. Even if all other potential contributors (gradual environmental change, magnetic polarity change) could be eliminated, that would not rule them out as the most likely explanations for many of the other extinctions, large and small, in the geologic record.

Although undeniably important to the public perception of the geosciences, the KT impact story has and will have far less of an impact on geology than two other revolutions of the last 75 years—plate tectonics in the 1960s and the astronomical theory of climate change (the Milankovitch hypothesis) in the 1970s.

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