SIEKE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication Volume 136, No. 15, October 7, 1989

E.G. Sherburne Jr. Patrick Young Laurie Jackson Janice Rickerich

Bruce Bowe

Publisher Editor Managing Editor Production/Design Director Behavioral Sciences

Chemistry/ Materials Science

Earth Sciences

Ivan Amato Richard Monastersky Janet Raloff Kathy A. Fackelmann, Rick Weiss

Jonathan Eberhart

Ivars Peterson

Liz Marshall

Environment/Policy Life Sciences/ Biomedicine Mathematics/Physics Space Sciences Editorial Assistant Science Writer Interns

Stephen Hart, Diane E. Loupe, Aline McKenzie Wendy McCarren Donald R. Harless

Books/Resource Manager Advertising/Business Manager

Copyright [§] 1989 by Science Service, Inc., Editorial and Business Offices, 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited

Subscription Department 231 West Center Street, Marion, Ohio 43305

Subscription rate: 1 yr., \$34.50; 2 yrs., \$58.00. (Foreign postage \$6.00 additional per year.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code. For new subscriptions only call (1) 800-247-2160. Printed in U.S.A. POSTMASTER: Send address changes to Science News, 231 West Center Street, Marion, OH 43305. Second class postage paid at Washington, D.C., and additional mailing offices. Title registered as trademark U.S. and Canadian Patient Offices. Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255) ISSN 0036-8423

This Week

228	New Record for World's Oldest Rocks
228	Drug duo takes on deadly colon cancer
229	Tracing living signs of ancient life forms
230	Bladder cancers: One in four due to jobs
230	Accounting made easy for gene mappers
230	Alcohol abuse grows among pregnant poor
231	FDA broadens use of unproven AIDS drug
231	Listening for hints of the sun's heliopause

Research Notes

233	Biomedicine
239	Behavior
239	Earth Sciences

Articles

234 DNA's Extended Domain

Cover: Most scientists have assumed that DNA, shown here as a single molecule viewed from one end, resides only in the nucleus and mitochondria within a cell. But in the past two decades, some biologists have reported discovering it bound to cell surfaces as well. Recent findings strongly point to DNA's presence on cell membranes, prompting speculation about a possible physiological role for this exiled nucleic acid. (Image: @ Regents, University of California/Computer Graphics Laboratory, UCSF)



Departments

226 Books227 Letters

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation. Board of Trustees — Chairman, Glenn T. Seaborg; Vice Chairman, Gerald F. Tape; Treasurer, Willis Harlow Shapley; Joseph W. Berg Jr.; Edward Bliss Jr.; Robert W. Fri; David A. Goslin; J. David Hann; Milton Harris; Leon M. Lederman; Elena O. Nightingale; Ben Patrusky; H. Guyford Stever; Deborah P. Wolfe. Honorary Trustees — Bowen C. Dees; O. W. Riegel; John Troan.

President: E. G. Sherburne Jr.; Business Manager: Donald R. Harless.

Letters

On moderation and morals

I found "Where Acids Reign" (SN: 7/22/89, p.56) informative but somewhat disappointing. Janet Raloff's moderate tone is characteristic of the "oh no, let's not sound like environmentalists" school of science and journalism. This is somewhat understandable when so much research on this problem is funded by power companies. However, I expect a higher moral standard in Science News.

I challenge scientists, journalists and legislators to tell it like it is. We are at a critical time. Placing stringent controls on pollution is the least we can do to slow the rapid spiral of degradation now turning our planet into a wasteland.

Though I commend Raloff for the conclusions reached in her summation, I can only hope the general public gets the message.

Timothy Kohchi

New York, N.Y.

data are incomplete or conflicting, to others.

— the editors

Reforestation on the road

I have an idea to help offset the tree destruction that threatens to intensify a future grouph one warming ("Survive elections").

Science News sees its "higher moral standard"

as reporting scientific findings and their im-

plications as accurately and fairly as possible.

We leave advocacy, especially in areas where

I have an idea to help offset the tree destruction that threatens to intensify a future greenhouse warming ("Surveys slash away at forest estimates," SN: 8/19/89, p.124). The United States is carpeted with superhighways. All have grass-covered median strips that are maintained regularly at great expense. If these median strips could be planted with trees, deciduous ones down the middle and evergreens down the sides, it would go a long way in helping to counteract the 1.2 billion metric tons of carbon dioxide we now spew out yearly. The evergreens on the sides would help keep the leaves in the middle,

where they could decompose and provide nutrients for both kinds of trees. This idea would even put the carbon-dioxide-using trees where some of the gas is being produced. It would also save the energy needed to mow the medians.

Nurserymen's associations could get involved by recommending the best trees for each area and perhaps providing them at cost. Beautification committees, environmental groups, service clubs and concerned citizens would all have a common cause.

We complain about Third World countries destroying trees and the environment, but we do the same, contributing 20 percent of carbon dioxide's total greenhouse effect. We must counteract it ourselves, and do it on "wasted" land that will never see a saw.

Nancy Irving West End, N.C.

Letters continued on p.237

OCTOBER 7, 1989 227