

SCIENCE NEWS®

The Weekly Newsmagazine of Science

Science Service Publication
Volume 145, No. 24, June 11, 1994

Alfred Scott McLaren	Publisher
Patrick Young	Editor
Blair Burns Potter	Managing Editor
Dan Skripkar	Production/Design Director
Greg W. Pearson	Associate Editor
Janet Raloff	Senior Editor
Ron Cowen	Environment/Policy
Bruce Bower	Astronomy
Richard Lipkin	Behavioral Sciences
Richard Monastersky	Chemistry/ Materials Science
Tina Adler	Earth Sciences
Kathy A. Fackelmann, Elizabeth Pennisi	General Science
Ivars Peterson	Life Sciences/ Biomedicine
Larry Norland	Mathematics/Physics
Damaris Christensen Gigi Marino	Editorial Assistant
Cait Anthony	Science Writer Interns
Donald R. Harless	Books/Resource Manager
	Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$39.50 for 1 year or \$68.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, DC 20036. Second-class postage paid at Washington, DC, and additional mailing office. **POSTMASTER:** Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, OH 43305. Change of address: Four to six weeks' notice is required—old and new addresses, including zip codes, must be provided.

Copyright © 1994 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A.

Editorial and Business Offices:
1719 N St., N.W., Washington, DC 20036
(202-785-2255)

Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Subscription Department:
P.O. Box 1925, Marion, OH 43305
For new subscriptions only, call 1-800-247-2160.
For customer service, call 1-800-347-6969.

Letters

Reindicting some chlorine uses

Let me comment on Charles J. Sterner's response to the indictment of chlorine in the environment ("Defeminizing hormonal horrors," SN: 4/2/94, p.220). He says, "If we abolish the use of chlorine, then plague, pestilence, and famine will sweep across the world." But plague, pestilence, and famine already affect large areas of the world and probably will continue even if we increase chlorine use.

Chlorine is a by-product of caustic soda production from electrolysis of aqueous sodium chloride. We find uses for it to avoid buildups of hazardous waste. Thus it is cheaper than hydrogen peroxide, which is a more environmentally friendly bleach and disinfectant.

As for the use of chlorinated hydrocarbons in agriculture, this always has been a stopgap measure and a substitute for good agronomy. It

This Week

- 372 Homosexual Mating Tastes Go Mainstream
- 372 Fossils widen range of biological burst
- 373 Homing in on our sneeze and wheeze genes
- 373 Threat from passive smoking is upgraded
- 374 Teams hunt for vascular and heart genes
- 374 Detecting the magnetic force of protons
- 375 Star hunt: Hubble looks at the heavyweights
- 375 Agricultural lands upset predatory insects

Research Notes

- 381 Physics
- 381 Chemistry
- 383 Computers
- 383 Astronomy

Articles

- 376 Talking Back in Time
- 378 Traitorous Lymphocytes

Cover: White cells play a crucial role in fighting infection. However, these same immune cells can cause disease when they're out of control. A new drug selectively destroys white cells and may offer therapeutic benefits to people suffering from ailments that range from a type of cancer to autoimmune disorders. (Illustration: Dan Skripkar)



Departments

- 370 Books
- 371 Letters

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

Board of Trustees — *Chairman*, Glenn T. Seaborg; *Vice Chairman*, Gerald F. Tape; *Secretary*, David A. Goslin; *Treasurer*, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Dudley Herschbach; Shirley M. Malcom; Elena O. Nightingale; Ben Patrusky; Peter H. Raven; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe. **Honorary Trustees** — Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan.

President: Alfred Scott McLaren; **Vice President and Business Manager:** Donald R. Harless.

has followed in the wake of ecological imbalance, inadequate fertility management, and soil erosion. Its continued use ensures that if we survive it *will* be at reduced population levels. The only thing that stops us from converting to ecological methods in agriculture is that so few people know enough about how to proceed.

While it can be argued that inappropriate chlorine chemistry has killed millions, ignorance is killing far more.

Hugh M. S. Lovel
Union Agricultural Institute
Blairsville, Ga.

TB mummy not likely Norse

It is certainly possible that "genetic traces of TB infection in a thousand-year-old mummy from Peru provided 'final and unequivocal evidence' that Europeans did not introduce the disease into the Americas" ("Pre-Columbian mummy lays TB debate to rest," SN: 3/19/94, p.181). It is also possible that this is just

another piece of evidence for pre-Columbian ocean crossings.

Norse and Mediterranean peoples had ships perfectly capable of crossing the oceans 1,000 years ago. Indeed, the latter had such vessels 2,000 years ago!

Richard Stepp
Professor of Physical Science
Humboldt State University
Arcata, Calif.

The researchers say there is little evidence of pre-Columbian crossing in that part of the world.

— D. Christensen

Concrete error

In your discussion of depression and 20th century abstract expressionist painters ("Creativity's melancholy canvas," SN: 5/7/94, p.302), the artist Robert Motherwell was misidentified as David.

David Gitin
Monterey, Calif.

JUNE 11, 1994

371