

## THIS WEEK

Rockfest 12: Space woes	196
Photosynthetic manganese	197
Another kind of storm	197
DNA experiment violations	198
Hornworm metabolic shift	198
Blood pressure and noise	198
Coal's chemical breakdown	199
Voyager: Mimas and more	199

## RESEARCH NOTES

Biology	202
Physical Sciences	202
Earth Sciences	206
Technology	206

## ARTICLES

Solar coil cookery	203
Mapping Mimas	204

## DEPARTMENTS

Books	194
Science on the Air	195

**COVER:** At Georgia Tech, a computer customizes a novel solar concentrator then prints out a workable pattern for its Fresnel spiral, complete with designated mounting points. Pattern shown is similar to one for 500-sun concentrator; to protect patent, pattern has been modified, making it unworkable. See story p. 203. (Artist's rendering: Victor Montes)

<b>Publisher</b>	E. G. Sherburne Jr.
<b>Editor</b>	Robert J. Trotter
<b>Senior Editor and Physical Sciences</b>	Dietrick E. Thomsen
<b>Behavioral Sciences</b>	Joel Greenberg
<b>Biomedicine</b>	Joan Arehart-Treichel
<b>Chemistry</b>	Linda Garmon
<b>Earth Sciences</b>	Susan West
<b>Life Sciences</b>	Julie Ann Miller
<b>Policy/Technology</b>	Janet Raloff
<b>Space Sciences</b>	Jonathan Eberhart
<b>Contributing Editors</b>	Lynn Arthur Steen (mathematics) Kendrick Frazier John H. Douglas Michael A. Guillen Bruce Bower Judy Klein
<b>Science Writer Intern</b>	Dale Appleman
<b>Assistant Editor</b>	Betsy Gordon
<b>Art Director</b>	Jane M. Livermore
<b>Assistant to the Editor</b>	Donald Harless
<b>Books</b>	Scherago Associates 1515 Broadway New York, N.Y. 10036
<b>Business Manager</b>	Fred W. Dieffenbach, Sales Director
<b>Advertising</b>	

Copyright © 1981 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

**Editorial and Business Offices**  
1719 N Street, N.W.  
Washington, D.C. 20036

**Subscription Department**  
231 West Center Street, Marion, Ohio 43302

Subscription rate: 1 yr., \$19.50; 2 yrs., \$34.00; 3 yrs., \$47.50 (Add \$3 a year for Canada and Mexico, \$4 for all other countries.) 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. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices.

Published every Saturday by SCIENCE SERVICE, Inc. 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255)  
ISSN 0036-8423

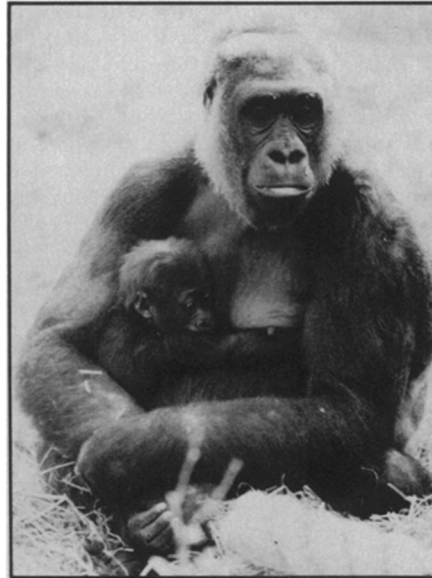
MARCH 28, 1981

# SCIENCE ON THE AIR

SCIENCE NEWS prints the latest written word of scientific developments and noteworthy news. We've set this space aside to inform our readers of programs of scientific interest that are scheduled on television and radio. Check your local listings for exact times.

## Television

• **April 8 (PBS) National Geographic Society — "Gorillas"** takes a look at the conservationists — a disparate group of zoo directors, dedicated individuals and scientists — working to ensure that the gorilla does not become extinct. The program also examines the activity of poachers and the effect of the encroaching human population.



Anne B. K. Krumbhaar. © NGS 1980

*Juju and infant Kaja: Successful breeding.*

• **April 24 (PBS) "Electric Ponds: The Solar Solution"** is a documentary that examines the future of solar pond technology — regarded by some energy experts as solar energy's strongest short-term option for an efficient and economic power source. Featured are interviews with leading solar energy scientists in the United States and Israel and the views of energy advisors and politicians on the future of solar ponds.

• **April 29 (PBS) "The Day After Trinity: J. Robert Oppenheimer and the Atomic Bomb"** is a documentary that chronicles the development of the United States' first atomic bomb. Through historic film footage and interviews with Oppenheimer's colleagues, the program presents the bomb's development as a complex interplay of human motivations.

## Series

• (PBS) **"The Cousteau Odyssey"** This month's programs — all repeats — are: **April 5 "Calypso's Search for Atlantis, Part I,"** an attempt to unravel the mystery of the legendary lost island in the Bahamas and Crete; **April 12 "Calypso's**

**Search for Atlantis, Part II,"** focusing on Pseira off Crete's northern coast and the volcanic island of Santorini; **April 19 "Mediterranean: Cradle or Coffin,"** an examination of the danger to this landlocked sea from the urban and industrial wastes that flow into it; and **April 26 "Blind Prophets of Easter Island,"** an exploration of an area that gives mute testimony to the dangers of exhausting natural resources.

• (PBS) **"Here's to Your Health"** April's programs — all reruns — are: **April 4 "All About Allergies,"** a look at the progress to date in combatting allergic reactions to drugs, pollen, foods, venom and bee stings; **April 11 "Radiation,"** a candid discussion of the risks and benefits posed by low-level radiation; **April 18 "Pain Management,"** a discussion of who should seek treatment for chronic pain, self-treatment and the role of drugs in pain management; and **April 25 "Burns,"** corrections of common misconceptions about burns and answers to questions about burns and their treatment.

• (PBS) **"NOVA"** This month's programs — all repeats — are: **April 7 "The Cancer Detectives of Lin Xian,"** one of the first films to come out of modern China and a medical detective story that traces the cause of esophageal cancer in Lin Xian; **April 14 "The Sea Behind the Dunes,"** one year in the intricate life of a coastal lagoon, focusing on the interrelationships of different life forms; **April 21 "Do We Really Need the Rockies?"** an examination of the promise and problems of shale oil; and **April 28 "Life on a Silken Thread,"** a look, in close up and slow motion, at the delicate grace and beauty of the spider.

• (PBS) **"Search for Solutions"** this month presents a repeat look at "the shirt-sleeve experience of science" with emphasis not on what has been discovered, but how and why it was discovered: **April 16 "Trial and Error, Adaptation and Context"** focuses on three vital problem-solving technologies used by scientists yet applicable to everyone; **April 23 "Patterns, Evidence and Investigation"** explores how we form a visual framework, gather evidence to test a possible solution and then observe; and **April 30 "Theory, Modeling and Prediction"** looks at the hypotheses we try to explain, the models we build to explain them and the predictions we make to increase the desirable.

195