A Science Service Publication Vol. 108/September 13, 1975/No. 11 Incorporating Science News Letter

OF THE WEEK

Bright nova in Cygnus	164
Monopole debate divides physicists	164
Ex-island beneath the Atlantic	165
Viking 2 Cydonia-bound	165
Scientists lambast astrology	166
New no-taste proteins	166
The danger of sugar-mania	167
What is a scientist?	167
Birth-rate rise foreseen	167

RESEARCH NOTES

Behavior	168
Chemistry	169
Physical Sciences	169

ARTICLES

New horizons in computer technology	170
Preventing sexual stereotyping	173

DEPARTMENTS

Books	162
Letters	163

COVER: Sexist attitudes can lock young minds into restrictive patterns, say researchers, and mental health statistics suggest that such patterns might be harmful, especially to women. Early intervention through the schools might be one key to unlocking sexist attitudes. See p. 173.

Publisher Editor

E. G. Sherburne Jr. Kendrick Frazier

Senior Editor and Physical Sciences

Dietrick E. Thomsen

Senior Editor and

Behavioral Sciences Robert J. Trotter Biomedical Sciences Joan Arehart-Treichel Biology/Chemistry Janet Hopson Weinberg Science and Society John H. Douglas Space Sciences Jonathan Eberhart

Contributing Editor/

Mathematics Lynn Arthur Steen Michelle Galler Riegel Copy Editor **Art Director** Dale Appleman

Assistant to the Editor Esther Gilgoff Margit Friedrich **Books** Advertising

Scherago Associates, Inc. 11 W. 42nd St. New York, N.Y. 10036 Fred W. Dieffenbach Sales Director

Copyright © 1975 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS 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., \$10; 2 yrs., \$18; 3 yrs., \$25. (Add \$2 a year for Canada and Mexico, \$3 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.

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). Cable SCIENSERV. Telex 64227.



Washington's water problem?

CIVIL ENGINEERING's editors have concluded that the Washington area faces a "'critical' water problem" ("The Thirsty Capital," SN: 8/9/75, p. 89). Since SCIENCE News normally does not print incomplete stories, the information in CIVIL ENGINEERING must have been incomplete.

The jurisdictional problem is even more complex than stated: Maryland may own the Potomac River itself, but the Maryland shore from within the District of Columbia to Cumberland is almost all Federal land, as is the Virginia shore from the District to Great Falls 10 miles upstream. Two National Parks are involved: Harpers Ferry National Historical Park on both the Maryland and West Virginia sides at the Shenandoah River, and the Chesapeake and Ohio Canal from D.C. to Cumberland, plus the Great Falls Parks and George Washington Parkways in both Maryland and Virginia under the National Capital Parks unit of the National Park Service.

You reported (from CE) that "dams and reservoirs that would provide better water service have been stymied . . . ". Perfectly true, but the "stymied dams," a whole series of them, were proposed in the past by the Army Corps of Engineers under its mandate covering flood control and navigation, in neither capacity of which (by the legislation covering the Corps' functions) water supply could be the principal reason for dam construction. The Potomac does flood-let there be no mistake there-it averages a spectacular flood every 25 years, but direct effects on people are small compared with other American rivers in flood since, except at Harpers Ferry, there is little construction at river level. In fact, operating on the theory that the river will flood, the Park Service Visitor Center at Great Falls, Virginia, was ingeniously designed to let flood waters flow through, around, and under it without building damage works admirably.

The statement that ". . . incredibly, there are no reservoirs on the river and its principal tributaries" is misleading. Why should it be incredible? This is not the arid West, but the humid East, where there are quite a few rivers without reservoirs throughout much of their lengths. Further, there may be no huge storage reservoirs, but there are at least two dams-above Great Falls and downstream at Little Falls-for District of Columbia water intake, and there are a number of other places where water is diverted for human use. (I do not know, however, the nature of those diversion structures.)

During the 1966 drought, the story given to the public, at least in Montgomery County, Maryland, just upstream from the District, was not that there was inadequate water in the river, but that the distribution system on land was inadequate. This is not the same as saying that the river lacks sufficient water. Thus far droughts have never been more than very briefly annoying.

Finally, whence came the idea that water demand in 2000 A.D. will be nearly four times today's demand? This implies a population up to four times as large. Really, it is quite possible that the Washington area does not face a "critical" water problem, although waste disposal of all kinds is currently an emotional issue.

Louise N. Worrell Bethesda, Md

Optical communication

The article "Telephoning by Light" (SN: 7/19/75) has been brought to my attention. This article was authored by your Science and Society writer, John H. Douglas.

In the second full paragraph of column 2 on page 44, Mr. Douglas attributes to Bell Labs the discovery of a method of forming optical waveguides. It may be of interest to you to learn that U.S. Patents Nos. 3,711,-262; 3,823,995; and 3,884,550 cover and/or relate to the described method. These patents are assigned to Corning Glass Works.

I would deem it advisable to refrain from attributing to others Corning's contributions to this art.

Walter S. Zebrowski Manager, Electronic Patents Corning Glass Works Corning, N.Y.

(A spokesman for Bell Labs says that the particular method for making optical fibers that Mr. Douglas saw —"chemical vapor deposition using flowing gas system". indeed developed at Bell Labs and has a patent pending. Corning Glass Works has been, unquestionably, a pioneer in the development of fibers for optical communication, and remains a leader in the field.-Ed.)

Address communications to Editor, Science News, 1719 N Street, N.W. Washington, D.C. 20036

SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Board of Trustees—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: Deborah P. Wolfe, Queens College of City University of New York; Bowen C. Dees, The Franklin Institute; Athelstan Spilhaus, National Oceanic and Atmospheric Administration. Nominated by the NATIONAL ACADEMY OF SCIENCES: Gerald F. Tape, Associated Universities; Allen V. Astin, Bethesda, Md.; Glenn T. Seaborg (President), University of California, Berkeley. Nominated by the NATIONAL RESEARCH COUNCIL: Gerald Holton, Harvard University; Joseph W. Berg Jr., National Research Council; Aaron Rosenthal, National Academy of Sciences. Nominated by the JOURNALISTIC PROFESSION: Edward Bliss Jr., American University; Julius Duscha, Washington Journalism Center; O. W. Riegel (Secretary), Washington and Lee University. Nominated by E. W. Scripps Trust: Milton Harris (Treasurer), Washington, D.C.; Edward W. Scripps II (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust; John Troan, Pittsburgh Press.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka.

SEPTEMBER 13, 1975 163