

The Weekly Newsmagazine of Science

A Science Service Publication Volume 127, No. 13, March 30, 1985

E.G. Sherburne Jr. Joel Greenberg Dietrick E. Thomsen Publisher Editor Senior Editor/ Physical Sciences Managing Editor

Laurie Jackson Phillips Wendy McCarren Bruce Bower Joanne Silberner

Director **Behavioral Sciences** Biomedicine Earth Sciences Life Sciences Policy/Technology

Production/Design

Janet Raioff Jonathan Eberhart Susan Welch

Stefi Weisburd

Julie Ann Miller

Space Sciences Assistant to the Editor Science Writer Intern

Dawn D. Bennett Jane M. Livermore

Books Business Manager

Donald R. Harless Scherago Associates Advertising Fred Dieffenbach, Sales Director 1515 Broadway, New York, N.Y. 10036

Copyright ⁶ 1985 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., \$27.50; 2 yrs., \$47.50; 3 yrs., \$67.00. (Foreign postage \$5.00 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. 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

This Week

196 After Bhopal: Tracing Causes and Effects

196 To honeybees, a picture is worth a thousand line angles

Penn State heart gets nod 197

197 Towering dust devils discovered on Mars

198 Deep source of magnetic stripes 198 A balancing act for chemical purity

199 Heavy dose of caffeine brews clues to panic disorder

199 Diet and heart disease: A stronger link?

199 Running hot and cold

Research Notes

206 Earth Sciences 206 Environment

Articles

202 **Uncommon Factoring**

204 Local Loops with Fiber Optics

Cover: Glass fiber cables, widely used in long-distance Cover: Glass tiber cables, widely used in long-distance telecommunications, may one day replace copper wires in local telephone networks as well. Here, the tip of a glass rod is softened by heat and a filament is pulled from it to form thousands of kilometers of light waveguides for optical communications. The colors are created by glass layers of differing composition. (Photo by Leo Derlak/AT&T)



Departments

194 Science on the Air

194 Books

195 Letters

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation Board of Trustees—*President*, Glenn T. Seaborg; *Vice President*, Gerald F. Tape; *Treasurer*, Willis Harlow Shapley; *Secretary*, Julius Duscha; Joseph W. Berg Jr.; Edward Bliss Jr.; Bowen C. Dees; David A. Goslin; Milton Harris; Hilleary F. Hoskinson; O. W. Riegel; H. Guyford Stever; John Troan; Deborah P. Wolfe. Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless.

Letters

Famine and free enterprise

Worldwatch Institute's Lester Brown suggests that famine correlates more highly with population growth than with agricultural inefficiency, and hence appears to advocate lowering birth rates, perhaps even via China's female infanticide ("Famine: Is there a lesson from Africa?" SN: 2/23/85, p. 118). Not mentioned is another seemingly significant variable of famine, discussed by economist Thomas Sowell: the amount of free enterprise allowed the agricultural sector by the ruling government. Are famines more likely under statist (i.e., centralized, Marxist/socialist) regimes? This seems at least as likely as Brown's position.

Joseph S. Busey San Francisco, Calif.

Is there a lesson from Africa? Yes, indeed. The decline in food production since 1968 is due not so much to population growth but to the collectivization of farming by government, and aggravated by the import of free food, which drove the Ethiopian farmers out of business. Now we're exporting "volunteers" and more aid to resurrect farming in Ethiopia without market incentives. Good luck.

The "growing masses denuded their land" because these nomads were domesticated by their government and western religion. Had they been left free to follow food and fodder as they have done for generations, the tragedy would be far less severe.

William T. Holmes Poway, Calif.

Weight loss: An unwinnable war?

Except for certain risky surgical treatments, there is no truly successful means of permanent weight loss available today. Since the five-year failure rate of the most closely monitored weight loss treatments hovers at over 95 percent, and since repeated attempts to lose

weight are much more strongly correlated with degenerative diseases (and eating disorders) than fatness per se, one wonders what the medical profession has accomplished with the recent NIH conference which declared that 'obesity is a health-threatening condition" ("Weighty problems more fat than fancy," SN: 2/23/85, p. 119). They may vow to fight fat, but with what weapons? The people they intend to liberate appear to be suffering more, not less, in recent decades.

We really ought to be concerned about the fact that research findings that tend to dampen medical optimism about the possibility or advisability of weight loss are usually left on the pages of the technical journals, far from public pronouncements. The latest pronouncement at NIH was proof that [the medical profession is] bolder now, but no better informed. What happened there was politics and pep talk, not sci-

> Sara Golda Bracha Mayer Storrs, Conn.

MARCH 30, 1985 195