

The Weekly Newsmagazine of Science

A Science Service Publication Volume 125, No. 8, February 25, 1984

E.G. Sherburne Jr. Joel Greenberg Dietrick E. Thomsen

Publisher Editor Senior Editor/ Physical Sciences Managing Editor Production/Design

Joanne Silberner Judy Klein Bruce Bower

Deborah Franklin

Behavioral Sciences Biomedicine Chemistry Earth Sciences Life Sciences

Linda Garmon Cheryl Simon Julie Ann Miller Janet Raloff, Ivars Peterson Jonathan Eberhart

Policy/Technology Space Sciences Assistant to the Editor

Wendy McCarren Stefi Weisburd Jane M. Livermore Donald R. Harless

Science Writer Intern Books **Business Manager**

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

Copyright © 1984 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 archibited.

Subscription Department 231 West Center Street, Marion, Ohio 43302

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

116 Mass Extinctions and Sister Stars USAF cancels July shuttle mission 116

After the Corson report: Information-control concerns 117

Anomalons get more and more anomalous 118 Dimming depression in stroke victims 118

119 Gene-splice product designated 'orphan'

119 Risks calculated for dioxin in water

119 Holographic eagles wing across country

Research Notes

124 Biomedicine

124 Physical Sciences

Technology 125

125 Earth Sciences

Articles

120 Sex, Violence and Plenty of Rest

Cover: Northern elephant seals, battling each other and the forces of nature, have come back from near extinction a century ago and now number more than 75,000. Each year, males battle one another for the right to oversee a harem. In lower photo, elephant seal pups lie battered and dying —victims of El Niño-driven storms that hit Año Nuevo (Calif.) Island last year. (Photos: Kennan Ward, top; Richard S. Condit, bottom).



Departments

115 Letters

127

127 Science on the Air

Books

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. Goslir Milton Harris; Hilleary F. Hoskinson; Elizabeth F. Neufeld; O. W. Riegel; H. Guyford Stever; John Troan;

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless

Letters

Old bones

In reference to the report on the conference on human evolution held at the Institute of Human Origins, Berkeley, in Spring 1983, I would like to take this opportunity to clarify certain misconceptions and errors that appear to have originated at this meeting ("Lucy's Family Prob-

lems," SN: 7/2/83, p. 8).
Firstly, it is stated "Tardieu and Senut were invited but did not attend the Berkeley Conference, reportedly because they do not like the intensity of the American anthropological debate." This remark ignores the fact that we were "invited" but requested to pay for travel and attendance expenses. Given the limited funding available for travel and attendance it was quite impossible to spend such an amount for a three-day trip to California.

Regarding scientific questions, it is reported that Johanson said "Senut's evidence for Homo at Hadar rests on the most weathered, most fragmented distal humerus in the collection." It is correct that the humeral specimen thought to be of a different genus than Lucy is very fragmentary; nevertheless, several of its features are sufficiently preserved to allow anatomical study. After comparing right and left humeri in wild specimens of Pongo pygmaeus (35), Pan troglodytes (57), Pan paniscus (12), Gorilla gorilla (56) and Hylobates (68), and more than 100 modern humans, I still think that these traits distinguish two groups at Hadar. Additional studies of the radius support this conclusion.

Dr. White is reported to have said that I supported my conclusions with line drawings of the fossils that, when checked, don't match the fossils they are supposed to represent. The latter claim is completely unsubstantiated. Our sections have been repeated in duplicate or triplicate on different casts of the same specimens; in all cases, the same pattern was obtained.

The first part of the statement is simply false; I have never used line drawings to support the hypothesis of two groups of Hadar. In any case, line drawings of sections cannot be obtained for the supposedly more modern specimen because the necessary reference points are not preserved. Line drawings have only been

applied to Lucy's humeri (and to some extent to AL 322.1) where they revealed a morphological resemblance to modern African apes (AMERIcan Journal of Physical Anthropology, 56, 275-283).

> Brigitte Senut Laboratoire d'Anthropologie du Muséum national d'Histoire naturelle Paris France

Anchors aweigh

Thank you for continued articles of excellent substance from the world of science. One caption from page 425 of the 12/24 & 31/83 issue (in Who Should Rule the Ice?") struck a sour chord - "Helicopters, supplied by the U.S. Air Force..." Transportation on the Antarctic continent is provided by VXE-6 (Antarctic Development Squadron Six), U.S. Navy

Glenn S. Bacon VXE-6 Flight Surgeon McMurdo Station, Antarctica

Letters continued on page 123

115 **FEBRUARY 25, 1984**