

# SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication  
Volume 131, No. 25, June 20, 1987

E. G. Sherburne Jr.	Publisher
Joel Greenberg	Editor
Dietrick E. Thomsen	Senior Editor/ Physical Sciences
Laurie Jackson	Managing Editor
Wendy McCarren	Production/Design Director
Bruce Bower	Behavioral Sciences
Richard Monastersky	Earth Sciences
Stefi Weisburd	General Science
Diane D. Edwards	Life Sciences/ Biomedicine
Janet Raloff, Ivars Peterson	Policy/Technology
Jonathan Eberhart Susan L. Arns	Space Sciences Assistant to the Editor
Karen Hartley, Rick Weiss	Science Writer Interns
Jane M. Livermore	Books
Donald R. Harless	Advertising/Business Manager

Copyright © 1987 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., \$29.50; 2 yrs., \$50.00.  
(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., and additional  
mailing offices. 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

## Letters

### Extinction explanations

In "Volcanoes and Extinctions: Round Two" (SN: 4/18/87, p.248) Courtillot said, in arguing against the asteroid-impact extinction theory, "... the way of science is to try the simplest thing before going back to something extraordinary."

What is so extraordinary about an asteroid impact? We know they occurred on almost every major body in the solar system. We can calculate a rough approximation of the frequency of their occurrence throughout the history of the solar system. The only question is: If the last impact on the earth was 65 million years ago, aren't we about due for another one?

Jeff Sterling  
Rockledge, Fla.

Why not use a combination of both theories and the evidence they are based on to explain the Cretaceous-Tertiary (K-T) extinctions?

## This Week

- 388 Cameroon Clouds: Soda Source?
- 388 Sound waves for activating nickel
- 389 Smooth-muscle cells: Twist and clout
- 389 Drug 'nukes' ovarian cancer
- 390 New avenues for LNS gene transfer
- 390 STSers win MacArthurs
- 390 Launch score: Nature 3, NASA 0
- 391 End of the world: You won't feel a thing
- 391 AIDS may affect course of syphilis

## Research Notes

- 396 Biology
- 396 Biomedicine
- 397 Mathematics
- 397 Physics

## Articles

- 392 Picture This

Cover: The sound of a fetus breathing can be converted into a symmetrized dot pattern, as shown. This particular technique, which depicts sound waves so that frequency information is emphasized, is one of several methods recently developed by IBM researcher Clifford Pickover for representing complex data. Such representations can be used to enhance subtle differences between waveforms and to identify patterns and trends. (Illustration: Pickover/IBM)



## Departments

- 386 Books
- 387 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*, Hilleary F. Hoskinson; Joseph W. Berg Jr.; Edward Bliss Jr.; Bowen C. Dees; David A. Goslin; J. David Hann; Milton Harris; Elena O. Nightingale; 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.

After all, Alvarez's asteroid impact site has never been positively identified (i.e., no smoking gun); and, according to the article, the volcanic evidence by itself is debatable.

A theory postulating one or more asteroid impacts occurring in the K-T time frame with resultant volcanic activity (i.e., Deccan Traps and NATIP events) could explain many of the observed phenomena (e.g., extinctions, worldwide material distribution, iridium levels, shocked material, time coincidences, causes for Deccan Traps and NATIP). The asteroid impact/volcanic activity interaction remains to be explained. Perhaps the volcanic events were triggered by impact-caused hydrodynamic ram effects occurring in the crust/upper mantle region. Or the Deccan and NATIP regions may be the impact areas themselves, perhaps for bundles of smaller asteroids rather than a few large ones.

Frederick B.M. Reimer  
Los Angeles, Calif.

The idea that an asteroid impact triggered volcanic eruptions has been suggested by scien-

tists before. However, Courtillot has concluded that the Deccan Traps, at least, were not created by an impact, because there are no characteristic impact fractures in the area.

— S. Weisburd

## Copies Missing?

Keep your files of Science News complete and up-to-date. Any missing issue from the past two years may be ordered by sending \$1.00 per copy (\$1.50 for issues older than 1 year) to:

Back Orders

## Science News

1719 N Street, N.W.  
Washington, D.C. 20036

JUNE 20, 1987

387