

OF THE WEEK

Quark theory challenged	372
National Medal of Science winners	372
Infant visual preferences	373
17th century solar rotation	374
Autism's maternal link	374
Self-destruction octopus style	375
CO ₂ study released	375
China's university reform	375
Scottish soy sauce	375

RESEARCH NOTES

Astronomy	376
Biomedicine	376
Behavior	377
Biology	377

ARTICLES

East meets West technologically	378
---------------------------------	-----

DEPARTMENTS

Letters	371
Books	381

COVER: With higher technology (and lower wages) Japan's mills have flooded the U.S. market with cheap steel, but steel production is only one area in which Japanese science and technology is catching up with, and even outstripping, the West. See story p. 378. (Photos: Embassy of Japan)

Publisher	E. G. Sherburne, Jr.
Editor	Robert J. Trotter
Senior Editor and Physical Sciences	Dietrick E. Thomsen
Behavioral Sciences	Joel Greenberg
Biomedicine	Joan Arehart-Treichel
Life Sciences	Julie Ann Miller
Policy/Technology	Janet Raloff
Space Sciences	Jonathan Eberhart
Contributing Editors	Lynn Arthur Steen (mathematics) Kendrick Frazier John H. Douglas Gregory McQuerter
Science Writer Intern	Judy Klein
Assistant Editor	Dale Appleman
Art Director	Evelyn Harris
Assistant to the Editor	Jane M. Livermore
Books	Donald Harless
Business Manager	Scherago Associates 11 W. 42nd St., New York, N.Y. 10036
Advertising	Fred W. Dieffenbach, Sales Director

Copyright © 1977 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., \$12.50; 2 yrs., \$22; 3 yrs., \$30. (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) TWX 710-822-9433 SCIEN NEWS.

LETTERS

Alcohol and tranquilizers

Deutsch and Walton (SN: 10/29/77, p. 277) point out the possibility that diazepam may maintain the addictive state of alcoholism, presumably if used continuously.

The proper treatment of the alcoholic is withdrawal of alcohol. Decreasing doses of diazepam may reduce the severity of the withdrawal symptoms. Subsequently, one should avoid the use of all sedative, hypnotic or tranquilizing drugs in these patients.

Samuel D. McFadden, M.D.
Daly City, Calif.

Good and bad crowds

The interesting report (SN: 11/19/77, p. 341) that crowding is linked to high death rates makes no mention of the work of social psychologist Jonathan L. Freedman. In a prize-winning book, *Crowding and Behavior*, Freedman suggests that crowding by itself is neither a good thing nor a bad thing. According to his "density-intensity" theory, crowding merely intensifies the negative or positive features of a situation. Thus a frustrating situation, such as a prison or a "maximum security psychiatric hospital" (the two institutions studied by the researchers), is made more frustrating the more crowded it becomes. A pleasing situation, on the other hand, say a funny movie, becomes more pleasing the more crowded it becomes.

Consider also that the pathological effects typically attributed to Manhattan "slum life" appear to be missing from the equally densely populated luxury apartment buildings of Gotham. If the researchers have considered and controlled for the quality of environments, this fact should be pointed out. Otherwise, rather than documenting the deadly effects of crowding, per se, their results may be better regarded as providing more evidence of the deleterious, anti-human properties of repressive, "total" institutions.

Gottlieb C. Simon
Washington, D.C.

Astronomy Special

I just must take time out to praise your special astronomy issue (11/12/77). It was superb. Especially enjoyable were the articles on telescope technology and lo's cloud. I look forward to seeing more such issues in the future.

One comment: I heartily agree with Charles Kowal — let's revive the name planetoid; it is fitting for such an object.

Perry Glen Moore
Nashville, Tenn.

"Evolving Questions about Galaxies" (SN:11/12/77, p. 324) points to the parallel between recent issues in galactic physics and the nature-nurture problems in psychology. In this analogy, the statement is made that "... some modern psychologists appear to rule out any effect of conscious choice...." While this statement is true, the use of the adjective "modern" in this context is anachronistic and does not properly reflect the latest trends in psychology. Having been exiled for nearly half a century, "consciousness" has rather reluctantly been readmitted as a legitimate, if elusive, object of scientific, psychological investigation. Consciousness owes much of its rehabilitation to Michael I. Posner, a pioneer in cognitive psychology, and to the split-brain experimenters such as R. W. Sperry and Joseph E. Bogen, as well as to the authors Robert E. Ornstein and Julian Jaynes. Looking back at the decades when the mention of consciousness was held taboo among mainstream psychologists, Jaynes muses: "Nobody [among the psychologists] believed he was not conscious...."

Peter Herti
Columbia, Mo.

Dietrick Thomsen's article on the NGT was interesting (SN: 11/12/77, p. 318), but leads me to ask two immediate questions:

1. Exactly who (or what) is the antecedent of "The Better to See You With"? After a lifetime on the wine of speculative fiction, the whiskey of speculative science packs a sure punch, but please, one has to draw the line somewhere.

2. Mightn't the astronomers be better off bidding their time, and agitating for a space-platform telescope? I know there are plans for one "on the drawing boards," but an SPT could be made the same size as the NGT, or larger (much larger, in the weightless conditions of space), with a better mirror, due to container-free processing. Add the design sophistications of the NGT, no cloudy nights or dusky skies, and you've got a proof that will keep pseudotechies like me drunk for quite a few years.

Luke McGuff
Chicago, Ill.

(The antecedent to "you" can be whatever your fantasy wishes: Orion, 3C273, Seyfert Galaxies, Darth Vader, Captain Kirk, Buck Rogers.

It will be at least one and possibly two generations before a space-platform telescope equal in size to the NGT could be built, and it would be more expensive than building it on the ground. (A smaller orbiting telescope is already in the works.) An NGT on the ground could serve more astronomers more easily, because a space-platform telescope would require continual ferrying of observers to the station or long-distance servo control and telemetering from the ground, both of which would limit its versatility. A space-platform telescope may still come sometime in the next century, but from astronomers' points of view the more telescopes they can get, the better. —Ed.)

SCIENCE SERVICE

Institution for the public understanding 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** (Vice President), 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**, Washington, D.C. Nominated by the JOURNALISTIC PROFESSION: **Edward Bliss Jr.**, Newburyport, Me.; **Julius Duscha**, Washington Journalism Center; **O. W. Riegel** (Secretary), Glasgow, Va. Nominated by E. W. SCRIPPS TRUST: **Milton Harris** (Treasurer), Washington, D.C.; **Edward 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.