

<b>LETTERS</b>	OMB Approach to Management: <i>J. L. Modisette</i> ; Operations Research: <i>C. H. Waddington</i> ; <i>A. L. Porter</i> ; Exchanges with China: <i>U. S. G. Kuhn III</i> ; <i>H. Brown</i> ; Drug Education Conference: <i>C. A. Chorus</i> ; Pathologic Evaluation and the Blind Technique: <i>T. R. Fears</i> and <i>M. A. Schneiderman</i> ; The Confusion over Bacteriophage $\phi$ X-174: <i>W. Szybalski</i> ; Humidifiers and Energy Conservation: <i>P. S. Riggs</i> . . . . .	<b>1141</b>
<b>EDITORIAL</b>	Global Science Policy: <i>Lord Ritchie-Calder</i> . . . . .	<b>1147</b>
<b>ARTICLES</b>	Long Journey into Tunneling: <i>L. Esaki</i> . . . . .	<b>1149</b>
	Optimization in Ecology: <i>M. L. Cody</i> . . . . .	<b>1156</b>
	Should the History of Science Be Rated X?: <i>S. G. Brush</i> . . . . .	<b>1164</b>
<b>NEWS AND COMMENT</b>	Uranium Enrichment: Rumors of Israeli: Progress with Lasers . . . . .	<b>1172</b>
	U.S.-U.S.S.R. Détente: Bumpy Progress on the Agricultural Front . . . . .	<b>1175</b>
	Land Use: Rules Panel and Nixon Leave House Bill in Limbo . . . . .	<b>1177</b>
	Herbicides: Academy Finds Damage in Vietnam War after a Fight of Its Own . . . . .	<b>1178</b>
<b>RESEARCH NEWS</b>	RNA Viruses: The Age of Innocence Ends . . . . .	<b>1181</b>
<b>BOOK REVIEWS</b>	Gravitation, reviewed by <i>D. W. Sciama</i> ; Gravity and Tectonics, <i>A. L. Hales</i> ; Our Environment, <i>M. I. Goldman</i> ; The Mathematical Theory of the Dynamics of Biological Populations, <i>R. M. May</i> ; The Many-Worlds Interpretation of Quantum Mechanics, <i>P. G. Federbush</i> ; Phytochemistry, <i>A. W. Naylor</i> . . . . .	<b>1186</b>
<b>REPORTS</b>	Lunar Surface: Identification of the Dark Mantling Material in the Apollo 17 Soil Samples: <i>C. Pieters et al.</i> . . . . .	<b>1191</b>

Downloaded from <http://science.sciencemag.org/> on November 22, 2018

<b>BOARD OF DIRECTORS</b>	LEONARD M. RIESER Retiring President, Chairman	ROGER REVELLE President	MARGARET MEAD President-Elect	RICHARD H. BOLT BARRY COMMONER	EMILIO Q. DADDARIO EDWARD E. DAVID, JR.
<b>CHAIRMEN AND SECRETARIES OF AAAS SECTIONS</b>	MATHEMATICS (A) John G. Kemeny Truman A. Botts	PHYSICS (B) Solomon J. Buchsbaum Rolf M. Sinclair	CHEMISTRY (C) Milton Harris Leo Schubert	ASTRONOMY (D) Ivan R. King Arlo U. Landolt	
	PSYCHOLOGY (J) Charles Cofer Edwin P. Hollander	SOCIAL AND ECONOMIC SCIENCES (K) George J. Stigler Daniel Rich		HISTORY AND PHILOSOPHY OF SCIENCE (L) Owen Gingerich George Basalla	
	EDUCATION (Q) J. Myron Atkin Phillip R. Fordyce	DENTISTRY (R) Howard M. Myers Sholom Pearlman	PHARMACEUTICAL SCIENCES (S) Louis P. Jeffrey John Autian		INFORMATION AND COMMUNICATION (P) Martin Greenberger Joseph Becker
<b>DIVISIONS</b>	<b>ALASKA DIVISION</b> William E. Davis Chairman, Executive Committee		<b>PACIFIC DIVISION</b> Irma Duncan Executive Secretary		<b>SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION</b> Robert C. Miller President
			<b>SECRETARY-TREASURER</b> Robert T. Orr Secretary-Treasurer		Gordon L. Bender President
					Max P. Dunford Executive Secretary-Treasurer

SCIENCE is published weekly, except the last week in December, but with an extra issue on the fourth Tuesday in November, by the American Association for the Advancement of Science, 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Now combined with *The Scientific Monthly*. Second-class postage paid at Washington, D.C. Copyright © 1974 by the American Association for the Advancement of Science. Member rates on request. Annual subscription \$30; foreign postage: Americas \$4, overseas \$6, air lift to Europe \$18. Single copies \$1 (back issues, \$2) except *Guide to Scientific Instruments* which is \$4. School year subscription: 9 months \$22.50; 10 months \$25. New rates will become effective 1 May 1974. Provide 6 weeks notice for change of address, giving new and old address and zip codes. Send a recent address label. Science is Indexed in the Reader's Guide to Periodical Literature.

# AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

	Polarized Magnetic Field Fluctuations at the Apollo 15 Site: Possible Regional Influence on Lunar Induction: <i>G. Schubert et al.</i> . . . . .	1194
	Mercury: Does Its Atmosphere Contain Water?: <i>G. E. Thomas</i> . . . . .	1197
	Stimulation of 24,25-Dihydroxyvitamin D <sub>3</sub> Production by 1,25-Dihydroxyvitamin D <sub>3</sub> : <i>Y. Tanaka and H. F. DeLuca</i> . . . . .	1198
	Collagen Polymorphism: Characterization of Molecules with the Chain Composition [ $\alpha 1(III)$ ] <sub>3</sub> in Human Tissues: <i>E. Chung and E. J. Miller</i> . . . . .	1200
	Visna Virus Infection of American Lambs: <i>O. Narayan et al.</i> . . . . .	1202
	Amino Acid Sequence of Rabbit Muscle Aldolase and the Structure of the Active Center: <i>C. Y. Lai, N. Nakai, D. Chang</i> . . . . .	1204
	Diarrhea Toxin Obtained from a Waterbloom-Producing Species, <i>Microcystis aeruginosa</i> Kützing: <i>K. M. S. Aziz</i> . . . . .	1206
	Carbon Fixation and Isotope Discrimination by a Crassulacean Plant: Dependence on the Photoperiod: <i>J. C. Lerman and O. Queiroz</i> . . . . .	1207
	Redirection of Filial Attachments in Rhesus Monkeys: Dogs as Mother Surrogates: <i>W. A. Mason and M. D. Kenney</i> . . . . .	1209
	Site of Neural Attenuation of Responses to Self-Vocalized Sounds in Echolocating Bats: <i>N. Suga and T. Shimozawa</i> . . . . .	1211
	<i>Technical Comments: "Very High Alumina Basalt": A Mixture and Not a Magma Type: E. Dowty, M. Prinz, K. Keil</i> . . . . .	1214
<b>ASSOCIATION AFFAIRS</b>	NOVA: Program Summaries of New Science TV Series . . . . .	1216
<b>MEETINGS</b>	Biotransformations and Fermentations: <i>J. P. Rosazza</i> ; Genetic Recombination: Genetic, Physical, and Biochemical Aspects: <i>A. Skalka, A. Weissbach, P. Bartl</i> ; Pharmacology and Toxicology Applied to the Treatment of Patients: <i>G. J. Cosmides</i> ; Forthcoming Events . . . . .	1217
<b>PRODUCTS AND MATERIALS</b>	Electrobalance; Molecular Emission Cavity Analysis; Flow Direction Adaptor for Laser Doppler Anemometer; Colony Counter; Literature . . . . .	1229

Downloaded from <http://science.sciencemag.org/> on November 22, 2018

RUTH M. DAVIS WARD H. GOODENOUGH	CARYL P. HASKINS CHAUNCEY STARR	WILLIAM T. GOLDEN Treasurer	WILLIAM BEVAN Executive Officer
GEOLOGY AND GEOGRAPHY (E) Terah L. Smiley Ramon E. Bisque	BIOLOGICAL SCIENCES (G) Beatrice M. Sweeney Jane C. Kaltenbach	ANTHROPOLOGY (H) Bernice Kaplan Philleo Nash	
MEDICAL SCIENCES (N) Louis G. Welt Richard J. Johns	AGRICULTURE (O) Ned D. Bayley J. Lawrence Apple	INDUSTRIAL SCIENCE (P) Gabor Strasser Robert L. Stern	
STATISTICS (U) John W. Tukey Ezra Glaser	ATMOSPHERIC AND HYDROSPHERIC SCIENCES (W) William R. Bandeen Stanley A. Changnon, Jr.	GENERAL (X) Frederick Seitz Joseph F. Coates	

## COVER

A young rhesus monkey clings to its canine companion. Young monkeys differing in age and social history developed strong and specific attachments when housed individually with dogs. These results raise questions concerning critical periods in primate attachments and the irreversibility of filial bonds. See page 1209 [Jeff Fricker. University of California, Davis]

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

# Science

**183 (4130)**

*Science* **183** (4130), 1141-1229.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/183/4130.citation>

**PERMISSIONS**

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

---

*Science* (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.