

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Science serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated.

Editorial Board

1969

EMIL HAURY	KENNETH S. PITZER
WILLARD F. LIBBY	ALEXANDER RICH
EVERETT I. MENDELSON	CLARENCE M. ZENER
JOHN R. PIERCE	

1970

GUSTAF O. ARRHENIUS	RICHARD C. LEWONTIN
FRED R. EGGAN	ALFRED O. C. NIER
HARRY F. HARLOW	FRANK W. PUTNAM
MILTON HARRIS	

Editorial Staff

Editor

PHILIP H. ABELSON

Publisher

DAEL WOLFFLE

Business Manager

HANS NUSSBAUM

Managing Editor: ROBERT V. ORMES

Assistant Editors: ELLEN E. MURPHY, JOHN E. RINGLE

Assistant to the Editor: NANCY TEIMOURIAN

News Editor: JOHN WALSH

Foreign Editor: DANIEL S. GREENBERG*

News and Comment: LUTHER J. CARTER, PHILIP M. BOFFEY, JOEL R. KRAMER, ANDREW HAMILTON, NANCY GRUCHOW, SCHERRAINE MACK

Research Topics: ROBERT W. HOLCOMB

Book Reviews: SYLVIA EBERHART

Editorial Assistants: JOANNE BELK, ISABELLA BOULDIN, ELEANORE BUTZ, LINDA FARMER, GRAYCE FINGER, NANCY HAMILTON, OLIVER HEATWOLE, ANNE HOLDSWORTH, PAULA LECKY, KATHERINE LIVINGSTON, VIRGINIA NUESSELE, PATRICIA ROWE, LEAH RYAN, LOIS SCHMITT, BARBARA SHEPPER, RICHARD SOMMER, YA LI SWIGART, ALICE THEILE, MARLENE TUCKER

* *European Office:* 22 Mulberry Walk, London, S.W. 3, England (Telephone: 352-9749)

Advertising Staff

Director

EARL J. SCHERAGO

Production Manager

KAY GOLDSTEIN

Advertising Sales Manager: RICHARD L. CHARLES

Sales: NEW YORK, N.Y. 10036: Robert S. Bugbee, 11 W. 42 St. (212-PE-6-1858); SCOTCH PLAINS, N.J. 07076: C. Richard Callis, 12 Unami Lane (201-889-4873); MEDFIELD, MASS. 02052: Richard M. Ezequelle, 4 Rolling Lane (617-444-1439); CHICAGO, ILL. 60611: Herbert L. Burklund, Room 2107, 919 N. Michigan Ave. (312-DE-7-4973); BEVERLY HILLS, CALIF. 90211: Winn Nance, 111 N. La Cienega Blvd. (213-657-2772)

EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phone: 202-387-7171. Cable: Advancesci, Washington. Copies of "Instructions for Contributors" can be obtained from the editorial office. See also page 7, *Science*, 4 July 1969. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE-6-1858.

Support of Science on the University's Own Terms

The faltering in the public support of science in America points to a deep and disheartening conclusion: Science has established no secure claim in its own right upon the priorities of our national treasury. A generation of time and billions of dollars of public funds should have secured a deeper understanding of the meaning of science on the part of contemporary Americans. Instead, much of the actual experience has created downright misunderstanding.

At the end of World War II, the American taxpayer became the world's leading patron of science. For the next 20 years, public money flowed in increasing volume to the support of science. The rising curve of public support began to level out in 1965, and the support of university science is now down about \$250 million from the 1965 peak of \$1.3 billion. No one could deny that the ample flow of public funds set off a golden age of science in America. The country's universities and the scientific enterprise have yet to reckon, however, with the costs exacted by the terms on which the funds were extended and accepted. Now that the tide is ebbing, these costs are being revealed. It is clear that the harm done to science and the universities at the flood far exceeds any damage at the ebb.

The scientists were content to accept funds from whatever source was ready to supply money most generously. They thus permitted the major funding of their work to come as a by-product of mounting public expenditures for other purposes, especially for weapons. University administrators, for their part, were glad to have the scientists on their faculty take on the task of obtaining the money.

A university is a moral community, bound only by the common cause of the increase and diffusion of human understanding. In each of our foremost universities, the federal funding of science has exerted pressures tending to divide and dissolve that frail community. At best, it has installed and expanded scientific departments and enterprises in the universities and their medical schools without regard to the needs and priorities of the university as a whole, and often without regard to the educational process. At worst, it has established in the universities entirely inappropriate activities, motivated by the interests of the mission-oriented granting agencies and often inimical to free inquiry and to the humanity of science. Among the members of the faculty, the community has been divided on the line between the arts and sciences by the meanest issue of compensation and status, and dissolved by the transfer of the scientist's allegiance from his university to the invisible college of his field that controls his financial support in Washington. Between faculty and students, division and dissolution of the community has followed from the drafting of our scientific resources for the escalation of violence that has come to substitute for foreign policy over the past 25 years.

When the present crisis has passed and we can turn to the reconstruction of our universities, a first essential step will be the reconstitution of their relations with the federal government. The initiative and decision in the deployment of research funds must be restored to the universities. Administrators and scientists must insist that public funds be supplied on terms that respect the independence of the scientist and the autonomy of his university. If these are to be the terms, then the public at large must be persuaded soon that science is an enterprise to be supported as an end in itself, as an exercise of the capacity that most nearly makes each of us a human being, as an expression of the civilization of our society.—GERARD PIEL, Publisher, *Scientific American*

This editorial is adapted from remarks made on the occasion of his acceptance of the Arches of Science Award of the Pacific Science Center, Seattle, Washington, 21 October 1969.