

# 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

ROBERT L. BOWMAN	EVERETT I. MENDELSON
JOSEPH W. CHAMBERLAIN	NEAL E. MILLER
JOHN T. EDSALL	JOHN R. PIERCE
EMIL HAURY	KENNETH S. PITZER
ALEXANDER HOLLAENDER	ALEXANDER RICH
WILLARD F. LIBBY	DEWITT STETTIN, JR.
GORDON J. F. MACDONALD	CLARENCE M. ZENER

## Editorial Staff

### Editor

PHILIP H. ABELSON

### Publisher

DAEL WOLFE

### 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:* DANIEL S. GREENBERG

*News and Comment:* JOHN WALSH,\* ELINOR LANGER, LUTHER J. CARTER, NAOMI PANUSH, BRYCE NELSON, JANE AYRES, GILLIAN PARRILLO

*Book Reviews:* SYLVIA EBERHART

*Editorial Assistants:* JOANNE BELK, ISABELLA BOULDIN, ELEANORE BUTZ, BEN CARLIN, CAROLYN CLARK, JANE COLE, GRAYCE FINGER, NANCY HAMILTON, OLIVER HEATWOLE, ANNE HOLDSWORTH, KONSLYNNIETTA HUTCHINSON, ELEANOR JOHNSON, KATHERINE LIVINGSTON, BARBARA SHEFFER

\**European Office:* Lime Tree Farm, East Hagbourne, Berkshire, England. Telephone Didcot 3317

## Advertising Staff

### Director

EARL J. SCHERAGO

### Production Manager

ROSE MARIE ROMAGNOLO

*Advertising Sales Manager:* RICHARD L. CHARLES

Sales: New York, N.Y., 11 W. 42 St. (212-PE-6-1858): ROBERT S. BUGBEE

Scotch Plains, N.J., 12 Unami Lane (201-889-4873): C. RICHARD CALLIS

Medfield, Mass. 02052, 4 Rolling Lane (617-359-2370): RICHARD M. EZEQUELLE

Chicago, Ill. 60611, 919 N. Michigan Ave., Room 426 (312-DE-7-4973): HERBERT L. BURKLUND

Los Angeles 45, Calif., 8255 Beverly Blvd. (213-653-9817): WINN NANCE

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. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE 6-1858.

## The Moral Sense of the Scientists

The recent meeting of the American Association for the Advancement of Science provided an impressive body of evidence that many scientists now are indeed worried about their social responsibility. The announced theme of the week's sessions was "How Man Has Changed His Planet," and the phrase provided far more than a take-off point for bragging. It was a symptom of the unease that permeated the meeting.

Thus Thomas F. Malone warned one session that the possible consequences of weather modification must be weighed "before we are called upon to deal with them." Malone, vice president of the Travelers Insurance Company, told his audience: "The point is that there is still time for reflective thought, for setting objectives, for weighing alternative courses of action—in short, to act responsibly."

In the kind of exhortation that had telling effect on its audience but could earn little space in newspapers, Malone went on: "If the exploration of weather modification adds one more small brick to the edifice that contains world conflict and supports world order, science will have served a noble purpose by enriching human life. The burden of responsibility for seeing that this happens is, I believe, on scientists."

It was not only the prospects of man's modifying weather, however, that aroused concern. Other aspects of man's effects on his environment—notably air and water pollution—also stirred it up.

Questions from the audience at a session on pest control, for instance, indicated widespread worry about the use of chemical pesticides whose residues last a long time, such as DDT. The questioners were looking for the kind of assurance they got from George L. Mehren, Assistant Secretary of Agriculture, that most Government research money in pesticides—the 1966 figure was 79 percent—is now going into non-chemical means.

The impact of science on man's social environment drew concern, too, as the sessions on the races of humankind showed. The most heated area of dispute was on the question of how scientific inquiry would do least to feed the fires of racial animosity. One school held that the best thing to do was stay away entirely from investigations of the differences between the races, which one scholar labeled "pseudoscientific"; the other held that inquiry should go forward but that researchers have the obligation to denounce erroneous interpretations drawn from it. Geneticist Theodosius Dobzhansky, an exponent of the latter argument, added: "And in our world a scientist has no right to be irresponsible." The audience applauded his sentiment.

But exactly what is the scientist's responsibility in the matter of racial differences? The day of arguments produced no consensus.

Nor were those attending the meeting allowed to forget the historical examples of how science had hurt, rather than helped, mankind. Loren C. Eiseley, a historian of science, taxed the 19th century's evolutionists with characterizing races other than those of Western Europe as inferior, rather than simply different. The tags have persisted, he noted.

And Lynn T. White, Jr., another historian, argued that "both our present science and our present technology are so tinctured with Christian arrogance toward nature"—the attitude that it exists for the service of man—that "the remedy must also be essentially religious." Science and technology, he said, cannot answer all the questions they raise.

—J. V. REISTRUP\*

\* This editorial is condensed from a column in the 5 January issue of *The Washington Post* and is used here by permission of the publisher.