American Association for the Advancement of Science

BOARD OF DIRECTORS
Paul M. Gross, Retiring President, Chairman
Alan T. Waterman, President
Laurence M. Gould, President Elect
Henry Eyring
John W. Gardner
H. Bentley Glass
Don K. Price
Paul E. Kloosterg
Treasurer

VICE PRESIDENTS AND SECRETARIES OF SECTIONS

MATHEMATICS (A)
Magnus R. Hestenes
Wallace Givens

PHYSICS (B)
Elmer Hutchison
Stanley S. Ballard

CHEMISTRY (C)
Milton Orchin
S. L. Meisel

ASTRONOMY (D)
Paul Herget
Frank Bradshaw Wood

GEOLGY AND GEOGRAPHY (E)
John C. Reed
Richard H. Mahard

ZOOLOGICAL SCIENCES (F)
Dietrich Bodenstein
David W. Bishop

BOTANICAL SCIENCES (G)
Aaron J. Sharp
Harriet B. Creighton

ANTHROPOLOGY (H)
David A. Baeza
Eleanor Leacock

PSYCHOLOGY (I)
Lloyd G. Humphreys
Frank W. Finger

SOCIAL AND ECONOMIC SCIENCES (K)
Kingsley Davis
Ithiel de Sola Pool

HISTORY AND PHILOSOPHY OF SCIENCE (L)
Adolph Grünbaum
N. Russell Hanson

ENGINEERING (M)
Clarence E. Davies
Leroy K. Wheelock

MEDICAL SCIENCES (N)
Francis D. Moore
Oscar Touster

DENTISTRY (Nd)
Paul E. Boyle
S. J. Kreshover

PHARMACEUTICAL SCIENCES (Np)
Don E. Francke
Joseph P. Buckley

AGRICULTURE (O)
A. H. Moseman
Howard B. Sprague

INDUSTRIAL SCIENCE (P)
Alfred T. Waldelich
Allen T. Bonnell

EDUCATION (Q)
H. E. Wise
Herbert A. Smith

INFORMATION AND COMMUNICATION (T)
Foster E. Mohrhardt
Phyllis V. Parkins

STATISTICS (U)
Harold Hotelling
Morris B. Ulman

PACIFIC DIVISION
Phil E. Church
Robert C. Miller
President
Secretary

SOUTHWESTERN AND ROCKY MOUNTAIN DIVISION
Edwin R. Helwig
Marlowe G. Anderson
President
Executive Secretary

ALASKA DIVISION
Allan H. Mick
George Dahlgren
President
Executive Secretary

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.

The New versus the Classical in Science

There long has been a bandwagon tendency in American science, but today it seems particularly rampant. This seems true of the physical sciences and particularly of the biological sciences. In addition, there is an inclination to equate “classical” with “old-fashioned” and “passé.”

We Americans worship the new: Madison Avenue bases its approach on this weakness of ours. This is why car manufacturers bring out new models each year. Somehow the word new has acquired the meaning of “better.” Even scientists have succumbed to this psychology. Whenever there is a new breakthrough we tend to abandon the previously active areas. A massive follow-up of new discoveries is normally highly productive, and no damage would be done if it were not for the fact that the abandoned fields are rarely exhausted. When talent is diverted from them, science suffers an irreparable loss of know-how in the form of specialized information and methodology.

At this very moment, in some classical branches of science it is impossible to find a single expert. In others, the number of well-trained and intelligent specialists is smaller than the number of available hard-money positions. Invertebrate zoology (in its various subdivisions) is now in this position, and probably most specialists could name other fields.

This development is accompanied by other trends. The most imaginative workers are those who have been attracted to the new efforts and have thus automatically left the more orthodox workers in command of the classical fields. Bright young students quite naturally look for the greenest pastures. Recruitment thus becomes a serious problem. This is aggravated by the attitude of the Young Turks in the new areas. They tend to regard the more classical branches of their science with unconcealed contempt. At worst, this intolerance leads them to attempt to cut off funds from the more classical fields. The situation is further aggravated by the attitude of some foundations and science administrators. They are justified in fostering exploitation of breakthroughs, but it seems unwise for them to pour most of their funds into the glamor fields. The follow-up of breakthroughs rarely requires large foundation support. The bandwagon tendency takes care of this automatically.

Far more important, for the general well-being of American science and the attainment of a healthier balance between classical and frontier fields, is more financial and moral support for the classical areas. We should not place unnecessary obstacles in the path of the bright, imaginative youngster who, for reasons of his own, wants to go into an unpopular, classical field, because precedent shows that he is quite likely to make a spectacular success of it. The total Zeitgeist of science, together with new models and new techniques, moves ahead so rapidly that someone who has grown up with these new ideas very often finds unexpected new approaches in the “old” field and helps to rejuvenate it. The new systematics, and other, similar developments, show that this can be done, and that such rejuvenation has beneficial effects that go well beyond the focus of the renaissance. This would happen oftener if the principle were accepted more broadly that the new should supplement the classical and not totally displace it.—Ernst Mayr, Museum of Comparative Zoology, Harvard University