

Award for his contribution. From 1954 to 1958 Spilhaus was U.S. representative on the Executive Board of UNESCO. From 1961 to 1963 he was U.S. Commissioner in charge of the science exhibit at the Seattle World's Fair. Upon taking this appointment, Spilhaus said, "Science is not the exclusive property of the scientist. Science belongs to the people, all people, and must be understood, utilized, and guided by them. Though decision making and problem solution are the responsibilities of everyone in a free society, the scientist has a special role to play in making science meaningful to his fellow men. He cannot afford to fence off science confining its lessons to the experts." These words appear even more cogent today than they did in 1961 in view of the problems currently associated with the funding of scientific research and the misunderstanding of science and scientists one often encounters.

Spilhaus feels strongly that science should be brought close to the public.

Toward this end he developed "Our New Age," a daily and Sunday illustrated feature on science. He is author or co-author of *Workbook on Meteorology*, *Meteorological Instruments*, *Weathercraft*, *Satellite of the Sun*, *Turn to the Sea*, and *The Ocean Laboratory*. He has also published more than 100 articles in a wide variety of scientific journals.

Two recent projects in which Spilhaus has played a large role have received considerable attention. One is the "sea-grant college" system, for which authorizing legislation was passed in 1966; Spilhaus was instrumental in developing the concept. The other is the Experimental City Program [*Science* **159**, 710 (1968)]. This project has now gone through phase I of planning and is about to enter on a phase of expansion.

In 1967 Spilhaus became president of the Franklin Institute, a position he has held until very recently. From 1963 to 1967 he served on the Board of

Directors of the AAAS, and at present he serves on the Board of Trustees of the following organizations: Science Service, Inc., the International Oceanographic Foundation, the Pacific Science Center Foundation, the American Museum of Archaeology, the American Museum of Electricity, St. Paul Institute, and the Aerospace Corporation. He is a member of the National Science Board and a member or fellow of numerous organizations that include the American Institute of Aeronautics and Astronautics, the Royal Society of South Africa, the Royal Meteorological Society, and the American Philosophical Society. He has received honorary doctoral degrees from Coe College, Rhode Island University, and Hahnemann Medical College.

It should be apparent that Spilhaus' term as president of the AAAS will be an interesting one for all of us.

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AAAS Council Meeting, 1968

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Under the chairmanship of President Walter Orr Roberts, the AAAS Council held its 1968 meeting in the Sam Houston Room of the Sheraton-Dallas Hotel in Dallas, Texas, on 30 December. There were 200 members present for the morning session and 151 for the afternoon session.

In his report as Chairman of the Board of Directors, Don K. Price told Council that plans were going forward for a meeting of representatives of AAAS and the British Association for the Advancement of Science to consider the activities and responsibilities of general scientific societies, such as the two sponsoring associations, that include all fields of science and that are devoted to the improvement of the public understanding of science as well as the advancement of scientific research and study. There will be 10 to 15 se-

lected representatives from each of the associations plus approximately 10 scientists from other countries in attendance.

Dr. Price then reviewed the discussions of Council and the Board over the past 3 years concerning the use of herbicides in Vietnam, the actions the Board had taken with respect to that problem, and also its actions concerning the more general problem of large-scale, man-made alterations of the environment. The AAAS Committee on Environmental Alteration, the creation of which had been announced a year earlier, had, he reported, gotten organized and had already started on a program of analyzing selected situations in which technological developments are or may be seriously altering the natural environment.

On the specific issue of the use of

herbicides in Vietnam, he reported that the Board had assumed direct responsibility and that the Committee on Environmental Alteration was not engaged in studies in this area. He reminded Council of the statement prepared by the Board and published in the 19 July 1968 issue of *Science*, and said that the Board had prepared a statement of plans for the initiation of a field study of the effects of the use of herbicides in Vietnam which it wished to report to Council.

During the following discussion, Council voted to endorse the intent and general principle of the Board's statement, but recommended some changes in wording which the Board, in a special meeting held during the noon recess of the meeting of Council, adopted. As revised in accordance with the advice of Council, the statement follows.

It is the sense of the Board that the Association, looking not only to the effects of the wartime use of herbicides, but also to the opportunities for the peacetime reconstruction of the agriculture and economy of affected areas:

(1) determines that it shall be a purpose of the Association to bring into being the most effective possible field study of the potential long-term and short-term ecological risks and benefits to the areas affected; and

(2) specifically directs the AAAS staff to convene, as soon as possible, an ad hoc

group involving representation of interested national and international scientific organizations to prepare specific plans for conduct of such a field study and with the expectation that the AAAS would participate in such a study within the reasonable limits of its resources.

H. Bentley Glass, chairman of the Committee on Council Affairs, supplemented the written report of that committee by discussing a resolution which Council had adopted a year earlier calling for further study of alternative possibilities for the construction of a dam across the Red River in Kentucky. That dam, he reported, will apparently be constructed, but in view of the high probability of disagreements over other dams and large-scale construction projects, the committee had met with representatives of the Department of the Interior for a discussion of the criteria for decision on such projects. Further discussions with representatives of the federal government are probable, and these may involve the Committee on Environmental Alteration as well as the Committee on Council Affairs.

Dr. Glass also briefly summarized the Committee on Council Affairs' discussions of possible study committees, some of which are still under consideration. The committee has recommended to the Board of Directors the establishment of a Committee on Ethics and Responsibilities of Scientists and has referred to the Committee on Environmental Alteration the possibility of a study of long-range modifications of the weather. In response to a proposal from the floor that a study be made of the loss of valuable agricultural land to highways, reservoirs, and so forth, Dr. Glass said that the suggestion would be referred to the Committee on Environmental Alteration.

Elections

President Roberts announced that by mail ballot Council had elected Athelstan Spilhaus (president, Franklin Institute) as president-elect; Richard H. Bolt (chairman of the board, Bolt, Beranek and Newman, Inc., and lecturer in political sciences, M.I.T.) and Mina S. Rees (provost, Graduate Division, City University of New York—reelected) as members of the Board of Directors; and Merrill M. Flood (principal scientist, System Development Corporation, Santa Monica), Gordon K. Teal (assistant vice president, Texas Instruments, Inc., Dallas), and Frank Bradshaw

Table 1. AAAS membership.

<i>Changes during 1968</i>	
New members	21,116
Losses:	
Deaths	440
Resignations	3,832
Dropped for non-payment of dues	11,439
	15,711
Net increase during 1968	5,405
<i>Totals as of 31 December 1968</i>	
Annual members in good standing	115,319
Graduate student members	3,274
Life and emeritus members	3,968
Total active membership	122,561

Wood (professor and director, Optical Astronomical Observatories, University of Florida) as members of the Committee on Council Affairs.

Council elected chairmen (and vice presidents of the Association) or chairmen-elect (and vice presidents-elect) for those sections from which nominations had been received, and voted to authorize the Board of Directors to act on section nominations that were received later. A number of the section committees reported the selection of new members-at-large, and the President reported that the Board of Directors had selected several new section secretaries: F. A. Ficken (professor of mathematics, New York University) as secretary of the Section on Mathematics; Leo Schubert (professor and chairman, Department of Chemistry, American University) as secretary of the Section on Chemistry; William D. Garvey (director, Center for Research in Scientific Communication, Johns Hopkins University) as secretary of the Section on Psychology; Harvey Sapolsky (assistant professor, Department of Political Science, Massachusetts Institute of Technology), to complete the remainder of the term as secretary of the Section on Social and Economic Sciences made vacant by the resignation of Eugene B. Skolnikoff; and F. Douglas Lawrason (vice president for medical affairs, Merck Sharp and Dohme Research Laboratories) as secretary of the Section on Medical Sciences.

All of the section officers, whether elected at this meeting or at an earlier time, are listed on page 835.

From a slate of nominees submitted by the Committee on Council Affairs, Council elected Stanley S. Ballard and Loren C. Eiseley to serve as new members of the Association's Committee on Nominations and Elections.

Affiliation

Upon recommendation of the Committee on Council Affairs, endorsed by the Board of Directors, Council voted to elect the Animal Behavior Society and the Marine Technology Society as affiliates.

At the 1967 meeting of Council, the application of the Parapsychological Association for affiliation was discussed. No action was taken, but the Board was requested to submit a specific recommendation at the 1968 meeting. Dr. Glass reported that the Committee on Council Affairs had reviewed the application and its supporting material in detail and had voted not to recommend affiliation. The divided discussion in the committee had, he said, persuaded the committee that the criteria for affiliation should be reviewed, clarified, and perhaps changed. Consequently, the committee recommended to the Board that a special committee be appointed for this purpose, and the Board has agreed to do so.

Upon recommendation of the Committee on Council Affairs, Council voted to withdraw the requirement that each affiliate pay to the Association an annual assessment of \$10 for each of its representatives in Council, and at the same time voted to cease the automatic distribution of a subscription to *Science* to the affiliate for each such annual assessment.

Pending the planned study of the criteria for affiliation, Council voted to rescind its rule that nonpayment of the assessment referred to above for 2 consecutive years or nonrepresentation in Council for 2 consecutive years could be used as bases for withdrawal of affiliation, and to substitute therefor the following statement: "The Committee on Council Affairs may recommend to Council that affiliation be withdrawn from an affiliate that has departed from or violated the criteria for affiliation, or that has given evidence of prolonged lack of interest in AAAS affairs."

Committee Reports

Written reports were submitted by the Committee on Science in the Promotion of Human Welfare, the Committee on Public Understanding of Science, the Commission on Science Education, and the Committee on Arid Lands. Dr. Margaret Mead, chairman of the Committee on Science in the

Promotion of Human Welfare, called attention to the symposium being presented by the committee at the annual meeting and to the statement on science and secrecy that had been prepared by the committee (see page 787). She also announced that when she retired from the committee at the end of the year, Dr. Walter Modell would succeed her as chairman.

Dr. Walter Orr Roberts supplemented the report of the Committee on Public Understanding of Science by saying that the committee had worked closely with the Board of Directors in planning the joint meeting to be held with the British Association and by announcing that Dr. Donald F. Squires would succeed him as chairman at the beginning of 1969.

On motion from the floor, Council voted with a round of applause to express appreciation to Drs. Mead and Roberts for the fine work both had done as chairmen of two of the Association's major committees.

Composition of Council

In response to requests made by Council members at earlier meetings and to further a discussion started at earlier meetings, the Committee on Council Affairs presented tables giving breakdowns, by fields of science, of Council membership, attendance at Council meetings, Association membership, and American scientists in general. The material provided part of the basis for discussion of the possibility of changing the size or composition of Council or the method of selection of its members. The discussion was started by Gerald Holton, on behalf of the Committee on Council Affairs, who proposed that the restructuring of Council might enable its members to work harder and more knowledgeably to help the Association carry out some of its responsibilities and accept additional opportunities to be of service to science and to society.

Distributed in advance of the meeting was a proposal by Dr. C. Ladd Prosser that most Council members be elected as representatives of AAAS

Table 2. AAAS budget for 1969.

Revenue	
Dues of annual members	\$1,220,000
Life members' subscriptions	34,000
Nonmember subscriptions	300,000
Subscriptions: <i>Science Books</i>	40,000
Advertising in <i>Science</i>	2,350,000
Sales: Symposium volumes	90,000
Reprints from <i>Science</i>	60,000
Back issues of <i>Science</i>	7,800
Binders and emblems	7,000
Book lists	24,000
Meeting and exposition	93,000
Rental receipts	2,700
Royalties	15,000
Income from investments	70,000
Administration of projects	60,000
Other income	5,000
Total revenue	\$4,378,500
Expenses	
General administration and services	
Board of Directors	\$ 10,000
Committees	20,000
Division allowances	24,000
Administrative offices	111,100
Business offices	239,300
Membership recruitment	102,000
Addressing	6,600
Building maintenance	77,980
Depreciation of building and equipment	44,020
<i>Science</i>	
Editorial office	439,000
News and Comment	161,000
<i>Guide to Scientific Instruments</i>	153,500
Addressing	62,000
Printing and mailing	1,775,500
Advertising—cost of selling	587,500
Other publications	
Symposium volumes	58,400
<i>AAAS Bulletin</i>	14,000
<i>Science Education News</i>	4,000
Library and science bibliographies	
Office and editorial	65,400
<i>Science Books</i>	23,600
Book lists	13,400
Annual meeting	
Meeting and exposition	161,000
Section expenses	9,000
Academy Conference	1,500
Press service	15,500
Public understanding of science	14,500
Contingencies and new activities	2,000
Miscellaneous	7,000
Total expenses	\$4,202,800
Net revenue	\$ 175,700

sections rather than as representatives of affiliated societies.

The discussion concluded with a vote requesting the Committee on Council Affairs to continue to study the matter, to submit some of the specific questions involved to Council for a poll of Council attitudes, and, if thought desirable, to submit recommendations for appropriate changes in the constitution or bylaws for consideration at the 1969 annual meeting.

New Section

Upon recommendation of the Committee on Council Affairs, Council voted to establish a Section on Atmospheric and Hydrospheric Sciences.

Association of Academies of Science

The President reported that unless there was objection, the Academy Conference wished to change its name to the Association of Academies of Science. No objection was raised.

Financial Matters

Dael Wolfe, the Executive Officer, reported that the increase in annual dues that had formally gone into effect at the beginning of 1968 had not substantially increased 1968 receipts because most members had taken advantage of the opportunity to renew at the rate prevailing in 1967, but that the increase would bring substantial additional funds in 1969 and that the budget for 1969 adopted by the Board of Directors (see Table 2) could therefore provide greater support for several major Association activities. The 1968 account—which a year earlier had been expected to end with a deficit—would, he reported, show a small excess of receipts over expenditures, due primarily to curtailing the amount of material that was published in *Science* and thereby keeping expenditures more than \$200,000 below those in the original budget.

One member proposed that the Committee on Council Affairs give special consideration to the effects of reductions in national science budgets and to means by which the AAAS might more effectively inform the public of the long-range effects of curtailing basic research. In accepting this proposal for the Committee on Council Affairs, Chairman Glass called attention to the extensive television coverage of the 1967 and 1968 annual meetings as one effective way of improving public understanding of some of the problems of science.