Observatories and not until 1979 was a woman named a Mount Wilson Carnegie Fellow. Margaret Burbidge's concerns for opportunities in science for women and minorities have a very personal basis.

A second major direction of Margaret Burbidge's research concerns the internal dynamics and masses of galaxies. Starting in the early 1960's with observations made at the McDonald Observatory in West Texas (then jointly operated by the Universities of Chicago and Texas), she obtained spectra of spiral galaxies from which were measured the velocities of the ionized gas clouds in their nuclei and disks. She, in collaboration with Geoff and with Kevin Prendergast, ultimately deduced rotational properties and masses for 50 or so spiral galaxies. By 1970 most of the knowledge of galaxy dynamics came from studies by Burbidge and colleagues, and caused at least one scientist to thank the Burbidges in print for "several pounds of reprints" on internal motions in galaxies. Once again Burbidge had pioneered a direction that developed into a fruitful and decisive branch of contemporary astronomy.

For the past 15 years, Burbidge has continued her observational research programs at the Lick Observatory of the University of California, in collaboration with students, fellows, and colleagues worldwide. Redshifts of quasars, absorption lines in quasars, and the distribution of quasars in the universe, all questions at the frontier of our knowledge, occupy her current research interest.

With increasing frequency since the 1960's, Burbidge has acted on her belief that scientists must impart the wonder of science to the public, and must also address the problems of society and of the support for science. She has taken an active leadership role on many committees for space sciences, on setting scientific priorities, and she is now a member of the Committee on Science and Public Policy of the National Academy of Sciences. She is a co-investigator on the team to build the Faint Object Spectrograph for NASA's Space Telescope.

Burbidge's achievements have been recognized with honors, prizes, and honorary degrees. She shared with her husband the Warner Prize in Astronomy in 1959; she served as president of the American Astronomical Society 1976–1978; and she was elected a Fellow of the Royal Society of London in 1964; and to membership in the American Academy of Arts and Sciences in 1969. She was elected a member of the National Academy of Sciences in 1978, the only woman astronomer so honored, and to the American Philosophical Society in 1980.

Throughout her professional career, Margaret Burbidge has met each challenge with intelligence, with originality, with dedicated hard work, and with grace. Members of the AAAS can expect an active leadership during her presidency.

1980 Report of the Executive Officer

William D. Carey

Two events of special significance to the AAAS occurred in 1980. The first was the observance of the 100th year of our flagship journal *Science*, launched shakily by Thomas Edison in 1880 and formally denoted the official publication of the AAAS in 1900. The second event was the first anniversary of our new general readership magazine, *Science 80*, which found an appreciative and rapidly growing audience. Together, the journal and the magazine constitute our principal responses to the respective mandates to advance science and enrich public understanding of science and technology.

Now that *Science 80* (retitled *Science 81* to keep pace with the calendar) has put the AAAS in touch with a prime adult audience estimated to number about 2 million, we must do more than merely celebrate a publishing success. We have undertaken a task that is a difficult one: informing a lay readership about the concepts and methods of basic and applied science across the expanding spectrum, and thereby bridging the distance between science and citizen. It is a large order, calling for both editorial creativity and special regard for the position of the AAAS as the sponsoring organization. These counsels are well understood and followed by the editors and the editorial advisory board.

Beyond our publishing activities, we have a diversified agenda of programs and activities bearing upon science and technology policy, responsibilities and human rights of scientists, intergovernmental relations in science, public understanding, science education, international cooperation in science and engineering, assistance to Congress and the Executive, and opportunities in science and engineering for women, minorities, and the handicapped. While later parts of this report will spell out the scope and directions of these programs, a word is in order here regarding the troubled area of science and engineering education and citizen literacy.

For the past several years, hardly a meeting of the Board of Directors has failed to discuss the mounting evidence of decline in the extent and quality of precollege education in science and mathematics and to search for a stronger and more effective role for the AAAS in reversing the negative national trends. This role may well take the form of advocacy for science education and citizen literacy, taking full advantage of the platform that AAAS enjoys and working through our affiliated societies, to generate an effective public interest pressure for remedial action. It is not too much to suggest that a central preoccupation of the AAAS through this decade should be "advancing science and citizenship through education."

While the Association is displaying vigor in its activities, there are structural and administrative concerns that need to be addressed. Membership continues to grow slowly from year to year, but we are plagued by the annual loss of thousands of members for reasons that are not clear. Economic conditions may be a factor, but one suspects that this is not the whole explanation. The limited opportunities afforded members for active participation in our programs may be part of the problem. The absence of a network of area divisions and chapters of AAAS, together with the sparseness of lively opportunities by our 21 Sections, may be other contributing reasons. The weekly arrival of *Science* and the opportunity to go to the Annual Meeting or the

Spring Colloquium may seem insufficient to hold the turnover of membership to less troubling levels. These are matters that we must explore, and the opinions of our members will be received with warmth.

It is also necessary to report that the AAAS is confronted with the need to embark on a building program. We have seen this crunch coming for some years, but with the launch of our new magazine we no longer can improvise without inviting loss of staff productivity and incurring heavy rental expense. The Association is now situated in three different buildings in Washington, with a 1981 rental bill of $350,000 which can only follow the curve of inflation. The Board has authorized a search for a new headquarters site in Washington or the near vicinity, and the membership will be kept informed as this problem advances toward resolution.

After 5 years of substantial budgetary surpluses, a deficit of $2 million in the operating budget is expected for 1980, attributable to outlays for the launch of *Science 80*. Overall, however, the financial position of AAAS is strong, helped in no small way by the excellent judgment of the Committee on Investment and Finance and the generosity of AAAS members in adding voluntary contributions to their membership assessment. The Board has had to direct another increase in members' dues because of the impact of cost-push inflation, but it should be made clear that members are not being taxed through dues increases in order to support the startup expenses of our new magazine. In fact, in the coming year members' dues will provide 22 percent of all AAAS revenues, compared with 32 percent in 1978.

We entered 1981 as guests of our good neighbor, Canada. Seldom has the AAAS been received with as much graciousness and enthusiasm by a host city. We are very grateful, and we have every reason to believe that this Toronto meeting signals the beginning of a strong and lasting fellowship for the good of science in the Americas.

Highlights of the Year

Science

For a centenarian journal, *Science* had one of its liveliest years. The Centennial Issue published on 3 July looked to the future with a broad array of material on current scientific frontiers and on the relation of science and technology to major world problems. The issue has been published in book form and is being translated into Chinese. An Advanced Technology special issue in May dealt with important research on materials, with most of the articles prepared by industrial scientists, and the issue has been republished in the compendium series while a translation into Japanese has been authorized. Another special issue dealt with recombinant DNA and included articles by many of the world's leaders in this rapidly advancing field. Work was under way on special coverage of crustal dynamics and sexual dimorphism, and current plans also call for special coverage of energy as well as an issue on the Saturn Voyager.

AAAS went to court to defend the trademark *Science* from infringement by *Science Digest*, a Hearst publication, and won injunctive relief in a case that made judicial history. AAAS is deeply indebted to our Managing Editor, Robert Ormes, and our legal advisers, Hedrick and Lane, for outstanding work in this troublesome matter.

The Editor of *Science* and the Board of Directors benefit greatly from the generous advice and guidance of an 18-member Editorial Board, whose names appear on the masthead of the journal. It must be equally apparent that the quality and timeliness of the journal reflect not only staff initiative but a remarkably vital flow of contributed articles and reports from the scientific community.

Science 80/81

Barely more than a year ago, AAAS held its breath and launched *Science 80* in a major effort to enhance public interest and understanding of science and technology. Now we can exhale, as the magazine has achieved national scale and stature. Circulation rose in the first year from 200,000 to nearly 500,000, and the magazine has converted from bimonthly to monthly publication. It has succeeded in its positioning strategy, gaining a well-educated lay audience made up largely of educators, industrialists, students, health and other professionals. A Chinese version is being published with our cooperation by China Press of Beijing. An Italian edition, to be copublished by AAAS and Fabbri of Milan, is expected to appear in March 1981. Domestic and foreign newsstand sales are being tested, with promising initial results.

Science 80 is also lending strength to other program goals of the AAAS. We are investigating the spinoff of teachers' guides and materials to improve science in the schools. A book publishing program is being explored. Proposals are being considered for radio and TV spot programming and magazine formats.

Clearly, AAAS has gained a large, new capacity to reach a substantial public audience with information and perspectives on the methods and meanings of science and technology. Allen Hammond and his staff, with the guidance of *Science 80*'s Editorial Board, have done their work well. Financially, *Science 80* is operating within the boundaries set by the Board of Directors.

International Programs

A major 1980 initiative of AAAS was aimed at organizing, jointly with the Indian Science Congress and the Indian National Science Academy, a Global Seminar on the Role of Scientific and Engineering Societies in Development, held in New Delhi in December with financial support from the National Science Foundation and the Government of India. Participants in the Global Seminar represented 45 nations, including the People's Republic of China and the Soviet Union.

A comparably large-scale project involving interdisciplinary studies of the societal effects of climate change is entering its third year, concentrating on the formulation of an agenda for research on environmental and other effects of a possible carbon dioxide–induced climate change. Funded by the U.S. Department of Energy, work is being completed on a two-volume research agenda entitled *Carbon Dioxide, Climate, and Society*. The project's steering group is headed by Roger Revelle.

AAAS continues its active involvement in the Western Hemisphere Cooperative program through participation in the Interciencia Association centered in Caracas and involving the science associations of Brazil, Canada, Colombia, Costa Rica, Jamaica, Mexico, and the United States. Leonard Rieser, a past AAAS president, is the newly elected president of Interciencia Association. AAAS provides the executive secretariat. In 1980, three major symposia were organized and a fourth cosponsored, dealing with environmental problems in economic development, new and underutilized bioresources, and materials for the future. Glenn Seaborg is chairing a fund-raising effort for the trilingual journal *Interciencia*, and planning is under way for a proposed Bioresources Program consisting of a regional network of research centers.

Active cooperation continued in 1980 with the China Association for Science and Technology (CAST). An invited delegation of Chinese scholars attended the San Francisco Annual Meeting. AAAS and CAST exchanged small delegations for visits to study methods of popularizing science. A working agreement was reached concerning the publishing of a Chinese edition of *Science 80*, and Chinese scientists accepted an invitation to participate in a joint scientific symposium at the Toronto Annual Meeting.

AAAS continued to convene the Consortium of affiliated societies with international programs and interests. The Consortium made useful contributions to the AAAS-sponsored New Delhi Conference, and 58 society representatives met with AAAS for a spirited exchange of views on the question of scientific cooperation with the Soviet Union following the invasion of Afghanistan and the internal exile of Sakharov.

At the request of the State Department, AAAS initiated a new program of Science, Engineering and Diplomacy Fellows, and agreed to provide expert resource panels to the Department in the fields of energy and recombinant DNA. The Executive Officer of AAAS accepted appointment to a science advisory committee to the State Department.

AAAS continued the practice of holding seminars for foreign science counselors and embassy attachés. Four seminars were held in 1980, dealing with coal liquefaction, public perceptions of risk, scientific communication, and medical information systems.

Again in 1980, Gerald Holton of Harvard University represented AAAS on the U.S. National Commission for Unesco. AAAS renewed its affiliation with the Pacific Science Association, and we were represented by Gustav E. Jackson of Howard University at the 12th Biennial Meeting of the West African Science Association. The Executive Officer represented AAAS at the Annual Meeting of the British Association for the Advancement of Science. Past president Edward E. David headed a five-member delegation to the Australia–New Zealand Association, while Thomas Vrebalovich represented AAAS at the meeting of the Indian Science Congress Association. Robert C. Hedlund and James Rowe represented us, respectively, at meetings of the French and Colombian Associations for the Advancement of Science.

The AAAS Committee on Arid Lands met at the Desert Range Experiment Station in Utah and developed a plan to focus attention domestically on the Four Corners area (Arizona, New Mexico, Utah, and Colorado), with a 3-year sequence of panels. Committee members contributed to the design of a United States–Mexico system to provide standards for evaluating the interaction of human and natural events in maintaining environmental stability. The Committee undertook to assist in coordinating private or nongovernmental input into U.S. participation in the UNEP desertification activities.

Although not classified explicitly as "international" scientific activities, other important programs of AAAS surely face outward on a troubled world. Prime examples include the Working Group on Nuclear Arms Control and Disarmament, chaired by George Rathjens, and the efforts of the Committee on Scientific Freedom and Responsibility, chaired by John Edsall, which maintains a Clearinghouse on Science and Human Rights.

It adds up to a formidable and versatile menu of international involvement on the part of AAAS. This is to be expected of an organization with AAAS's characteristics and aims. The question of limits to our digestion nevertheless does arise even as we contemplate the logic of strengthening scientific linkages with Europe, the Far East, and the Middle East. The choice may lie between doing it all through AAAS or choosing those things that we are best able to do, and working with our affiliated societies where they are better able to do other things.

Meeting and Publications

The San Francisco Annual Meeting, chaired by David Saxon and Edward Ginzton, was by all standards lively and successful. More than 4500 paid to attend, others attended in large numbers without paying, and 2000 high school students participated at our invitation. On every score the quality of the meeting was voted outstanding, but the highlight had to be the excellent program arranged for precollege students.

On a smaller scale, the June Colloquium on R & D in the Federal Budget was likewise a highlight of 1980. Under the management of Albert Teich and the oversight of the Committee on Science, Engineering, and Public Policy, attendance reached an all-time high of more than 400. Speakers from the White House, Congress, industry, universities, and state and local governments dealt with a wide and troubling theme of "R & D in an Inflationary Environment."

Since 1977 we have been publishing selected volumes based on symposia at our Annual Meeting. A total of 47 books have been published in this series to date, with eight more expected from the 1980 meeting and 15 to 20 from the Toronto meeting. The books are selling reasonably well and a few are already out of print. In addition to the symposium volumes, AAAS in 1980 published *Research and Development: AAAS Report V* and the *Colloquium Proceedings*, two *Science* compendia (*Advanced Technology* and *Science Centennial Review*), and *Films in the Sciences*. Three books emerged from AAAS Committees and offices: *Scientific Freedom and Responsibility Report, Professional Ethics Activities in Science and Engineering Societies*, and *Scientific and Engineering Societies: Resources for Career Planning*.

Science Education

AAAS's most substantial activity in this field was again its National Science Foundation–supported program of Short Courses for College Teachers. More than 3000 college teachers participated in the 54 courses which were completed in April. Applications for the next round are running higher. A spinoff took the form of three 1-day courses at the annual meeting of the American Association for Higher Education. At our Toronto meeting, four 1-day courses were held—two for college teachers and two for high school teachers.

As noted earlier, work is actively under way to explore ways of linking the material published by *Science 80* to the schools. In mid-summer, AAAS invited 29 scientists and educators to review issues of the magazine from that perspective. The responses have confirmed the usefulness of *Science 80* in the schools, with some reservations that the reading level may be too high for most students.

At the Board's request, a survey will be made of the educational activities of our affiliated societies as a baseline for determining what role is open to AAAS for assisting science education and promoting science literacy in the schools.

In response to interest expressed by the China Association for Science and Technology, a pilot demonstration of the methods of the Short Course program is being worked out for presentation in the People's Republic in 1981.

Public Sector Programs

AAAS has a broad and growing array of programs dealing with the interaction between science and public policy. The principal elements are the annual report on R & D in the Federal Budget, followed by the June Budget Policy Colloquium, and the intersociety Congressional Science and Engineering Fellows Program. However, new efforts are also making themselves felt increasingly.

Five subgroups have been formed by the Committee on Science, Engineering and Public Policy, focusing on the federal R & D budget, international topics, science and security, public-private sector relationships, and state and local government. Among the Committee's 1980 outputs was a report requested by the House Science and Technology Committee on major science and technology issues for the future. In addition, at the request of the National Science Foundation, the Committee took responsibility for a AAAS project to identify and develop scientific and technological issues to be considered by the National Science Foundation in preparing its next version of the congressionally mandated "Five Year Outlook for Science and Technology." This task is being conducted through a steering committee chaired for AAAS by former Congressman Ray Thornton, a member of the AAAS Committee on Science, Engineering and Public Policy.

The R & D budget project, as now constructed, provides for preparing and publishing a so-called "Early Bird" summary of R & D budget allocations immediately following release of the presidential budget. Next comes the Shapley-Teich report volume, which is followed promptly by the June Budget Policy Colloquium. This three-stage program is a demanding one, and I can report that it has won high marks from Congress, the Executive, and others (including the media) for its quality and objectivity.

Another dimension of our public sector work relates to assistance to the White House Science Office and the National Science Foundation with regard to federal-state-local governmental cooperation in science and technology. The effort is to relate federally funded research and development to state and local needs and problems, and to increase the involvement of these levels of government in federal R & D policies and priorities.

AAAS has sought to provide opportunities to the Congress to reach into the scientific and engineering communities for information and assistance. In 1980, AAAS held a meeting for Nobel Prize winners with members of Congress. AAAS also helped the House Committee on Science and Technology to plan a symposium on trends in industrial innovation as well as hearings on government and business sector methods of planning for R & D.

The AAAS–American Bar Association partnership continued under the rubric of the Conference of Lawyers and Scientists, with the focus upon illuminating the increasingly complex interactions between science, technology, and the American system of law and jurisprudence. With financial support from the National Science Foundation, a series of papers was commissioned on law/science relationships with the aim of publishing them in both *Science* and the *ABA Journal*. The Conference also arranged and held symposia at the Annual Meeting in San Francisco.

In September, 28 Congressional Science and Engineering Fellows, joined by six Fellows from the Congressional Office of Technology Assessment, one from the Congressional Research Service, and three Science and Diplomacy Fellows, began an orientation program that is managed by AAAS. The Fellows program, in its ninth year, has been a large and successful investment in increasing the depth and quality of interaction between Congress and the scientific and engineering communities. Some 20 AAAS affiliated societies were AAAS's partners in 1980 in the Congressional Fellows Program.

AAAS, with support from the Environmental Protection Agency (EPA), has undertaken a summer Environmental Science and Engineering Fellow program. The first fellowships will be awarded in 1981. The aims are to aid EPA in identifying and assessing long-range environmental problems and opportunities and improve EPA's outreach to science and engineering.

"Public understanding of science and technology" recurs throughout this report, and for a good reason. AAAS brings a variety of efforts to bear on the problem. Most conspicuous is *Science 80*, our new magazine of science and technology for an educated lay audience. This is a capital investment in public understanding. *Science*, chiefly through its News and Comment section, has done a great deal through the years to inform decision-makers regarding science policies. The Congressional and Media Fellows programs have reached

Table 1. Summary budget for 1981.

Major category of revenue	1981 revenue budget	Office/Center	AAAS funds	Direct grant and contract funds	Total expense
Revenue (in thousands)			*Expense (in thousands)*		
Dues of annual members	$ 4,875	Executive Office	$ 788	$ 48	$ 836
Institutional subscriptions	1,750	Contingency reserve	100		100
Advertising in *Science*	5,050	Office of Administration	1,794		1,794
Science 81 subscriptions	5,245	Office of Comptroller	486		486
Advertising in *Science 81*	2,158	Membership and Public Information Office	738	10	748
Grant and contract funds	1,312	Development Office	86		86
Annual meeting registration and exposition	163	Editorial Center (*Science*)	8,180		8,180
Investment income	925	*Science 81*	8,356		8,356
Product sales	845	Meetings and Publications Center	786		786
Contributions and other items	250	Programs Center	848	1,129	1,977
Subtotal—revenue	22,573				
Deficit—funded from reserves	776	Total expense	$22,162	$1,187	$23,349
Total	$23,349				

out to improve legislative and media capabilities to deal with developments and issues in science.

Twenty-one Fellows participated in AAAS's Mass Media Science Fellows Program in 1980, selected from nearly 300 applicants. They came from fields of science ranging from mathematics and biochemistry to political science. Their work assignments were with such host organizations as "Universe," CBS News, Washington *Star*, and the Providence *Journal-Bulletin*. All of the media organizations expressed satisfaction with the program and a desire to participate again. The program is funded partly by the National Science Foundation through 1983.

Four regional energy seminars were held during 1979–1980. Funded by the U.S. Department of Energy, the seminars were held in Seattle, Raleigh, Arkadelphia, and Long Beach. Plans call for continuation in 1981, with cosponsorship by Sigma Xi and other professional and public interest organizations. The seminars are focused on improving the public understanding of science.

Our Public Information Office, headed by Carol Rogers, has increased AAAS's participation with the electronic media. The FOCUS radio program continues and is beamed to all National Public Radio stations by satellite. The AAAS segments of the FOCUS program are among the most popular and are extensively reused, including on National Public Radio's "Morning Edition." Several television initiatives are being studied.

In addition, the Public Information Office this year introduced a *1980 Reporter's Guide to Key Research at Colleges and Universities*, a current listing of key research at 100 universities, with very favorable reactions from science reporters.

Opportunities in Science

Continuing a commitment that goes back almost a decade, AAAS in 1980 took many avenues to increase the opportunities for women, minorities, and the handicapped to enter and advance professionally in science and engineering. The Association was called upon to assist in designing federal legislation related to women in science. An inventory of programs for women in science, mathematics, and engineering was completed, together with a study of disabled women in science as a basis for developing programs for the handicapped which can serve both males and females.

With federal funds, a directory, *Scientific and Engineering Societies: Resources for Career Planning*, was completed, providing information on education and career paths. Three regional workshops were held in conjunction with the National Science Foundation's project "Workshops and Bulletins on Science and Technology for the Handicapped." The Foundation has also funded a project on Out of School Science Enrichment Activities for Disabled Youth.

The AAAS Network of Minority Women in Science, helped by a grant from the Polaroid Foundation, expanded its activities during the year, and an Atlanta-area chapter was established.

Membership Recruitment

At the end of December, net membership in AAAS was 3320 above the comparable period a year ago, and total membership at the year-end was 131,582. As noted earlier, the growth in net membership is slow but in the right direction. If lapses in membership can be slowed or reversed, a decisive rate of growth would follow. Even so, AAAS enjoys a very high annual renewal experience. Recruitment efforts now go to a potential member universe of 1 million per year, and the mailing list of *Science 80* is proving to be very responsive.

Scientific Freedom and Responsibility

The AAAS Committee on Scientific Freedom and Responsibility is chartered by the Board and the Council to foster attention to the professional rights and duties of scientists and engineers. Two projects have been launched: a Clearinghouse on Science and Human Rights, and the Project on Professional Ethics. In addition, Committee members and staff monitor government actions which affect the work of scientists and engineers, explore the issue of "whistleblowing" in the context of scientific responsibility, and identify principles of scientific freedom and responsibility of importance to science today.

During 1980, the Clearinghouse referred to affiliates more than 40 cases of foreign scientists whose human rights have been violated. Information was received on more than 100 cases of scientists in trouble in Colombia, Chile, El Salvador, Argentina, Uruguay, Paraguay, Guatemala, Liberia, Yugoslavia, Soviet Union, German Democratic Republic, Czechoslovakia, Indonesia, South Korea, Iran, and Iraq. In a symposium on "Scientific Cooperation and Human Rights in the Americas," held at the Toronto Annual Meeting, 30 North and South American scientists explored ways for individual scientists and societies to respond to these situations.

A final report of the Professional Ethics Project includes the results of a survey of the professional ethics activities of 241 affiliated societies, and the outcomes of a workshop which reviewed society activities.

Responding to governmental actions in the United States in 1980, the Committee conveyed its concern to the Secretary of State and the Secretary of Commerce regarding the use of U.S. export control regulations and visa restrictions to bar foreign scientists from conferences sponsored by AAAS affiliated societies. The Committee also addressed the Secretary of Labor regarding problems in protecting scientists and engineers who allege wrongdoing by employers. AAAS also joined with nine other nongovernmental organizations in a brief to the President's Select Commission on Immigration and Refugee Policy, urging repeal of certain provisions of the Immigration and Nationality Act which adversely affect entry of foreign scientists.

Regional Divisions

The Alaska Division held its 31st Alaska Science Conference at Anchorage in September, chaired by the Division President E. Lee Gorsuch, with an attendance of 500. Northern science was the substance of the conference, with emphasis on the social sciences. Symposia dealt with Arctic Oil and Gas in National and International Perspective; Resource Development and Environmental Protection; Wealth Management Strategies; and Culture Change, Modernization and Economic Development Strategies. During the year, the Alaska legislature undertook a commitment in support of future Alaska Science Conferences. The Executive Committee of the Alaska Division voted to actively encourage the federal and state governments to work cooperatively on a policy for arctic and subarctic science.

The Southwestern and Rocky Mountain Division (SWARM) met in Las Vegas jointly with the Arizona-Nevada Academy of Science in April. Two hundred and four papers were presented, 71 being student papers competing for SWARM awards. The annual John Wesley Powell Memorial Lecture, on weath-

er forecasting for arid lands, was given by Michael H. Glantz. The Committee on Desert and Arid Zones Research held a symposium on the Origin and Evolution of North American Deserts. Max P. Dunford became President-Elect of the SWARM Division.

The Pacific Division published its first symposium volume, *San Francisco Bay: The Urbanized Estuary*, supported in part by the U.S. Geological Survey and including 25 selected contributions on the Bay's history and studies of the geological, hydrological, and life support systems. In preparation were other symposium volumes on *Mosses of America* and *Galápagos Organisms*. Other books under way are *Frontiers of Geological Exploration of Western America*, *Late Cenozoic History of the Pacific Northwest*, and *San Francisco Bay: Use and Protection*, with partial grant support from the U.S. Geological Survey, U.S. Fish and Wildlife Service, and Ecological Analysts, Inc.

The Pacific Division's Annual Meeting at the Davis campus of the University of California drew 1100 attendees and 425 papers given at technical sessions arranged by 13 affiliated societies and sections. Plans for the 1981 meeting at Eugene, Oregon, include emphasis on hazards and environmental impacts of volcanic activity. Beatrice Sweeney is President of the Pacific Division, and Robert Bowman is President-Elect.

Development Efforts

During 1980, AAAS received 33 grants, contracts, or corporate contributions amounting to $1.75 million. Federal agencies made 18 grants amounting to $1.7 million, while corporate support came to about $50,000. Nearly all of the external support was earmarked for particular programs or projects. Two things should be said in this connection. First, while federal funds are coming to AAAS in substantial amounts, they aggregate less than 10 percent of the Association's gross revenues. Second, the level of corporate contributions to AAAS, restricted and unrestricted, is far short of what it ought to be.

AAAS Council Meeting, 1981

Catherine Borras

The AAAS Council held its 1981 meeting on 7 January in Toronto, Ontario, Canada, in the Essex Room of the Sheraton Centre, with 55 of its 86 members in attendance at the morning session and 42 at the afternoon session. President Frederick Mosteller presided.

AAAS Activities, 1980

William D. Carey, executive officer, gave a few highlights from his report of 1980 activities, which appears on pages 916 to 921 of this issue, and presented the operating budget for 1981 (page 919). He expressed confidence that *Science 81* magazine, which has reached a circulation of 500,000 a year ahead of schedule, would hold its own against mounting competition from commercial magazines, at least in terms of setting a qualitative standard in communicating with the public about science and technology. He complimented Allen L. Hammond and his editorial staff on their performance. Another significant development in 1980 was the Board's decision to have the AAAS play a more active role in the area of science and engineering education and citizen literacy. F. James Rutherford has been appointed as the Board's adviser on science education. Still to be resolved is the Association's housing problem. With staff now situated in three different buildings, management is difficult and heavy rental costs are being incurred. A search for a new headquarters site in Washington or the near vicinity is under way.

Elections

The election of J. Thomas Dutro, Jr., as Secretary of the Section on Geology and Geography (E) was announced. Results of the 1980 general and electorate elections were published in the 5 December issue of *Science*. Lists of AAAS officers, staff, Council and committee members, and representatives for 1981 follow this report.

Affiliated Organizations

The Council was informed that four organizations—the American Association of Pathologists, the American College of Chest Physicians, the American College of Gastroenterology, and the Forum for the Advancement of Students in Science and Technology—had withdrawn from affiliation. The American Speech and Hearing Association has changed its name to American Speech-Language-Hearing Association.

As new affiliates, the Council elected the Society for Psychophysiological Research and the Vermont Academy of Arts and Sciences, bringing the number of affiliated organizations to 284.

The Society for Psychophysiological Research was founded in 1959 to foster research on the interrelationships between the physiological and psychological aspects of behavior. It has some 800 members, holds an annual convention featuring primary research reports and integrative lectures, and publishes a bimonthly journal, *Psychophysiology*, consisting of primary research reports, theoretical reviews, technical notes, and occasional book reviews.

The Vermont Academy of Arts and Sciences, which has over 200 members, was established in 1965 to promote scholarship and encourage achievement in the arts, sciences, and humanities. It holds a full-day public meeting in different sections of Vermont at least once a year, an intercollegiate symposium in the spring, and a series of local meetings. It publishes a monthly *Newsletter* and two occasional papers per year.

Membership

Carol Rogers, head of membership recruitment and public information, reported that membership has grown modestly but steadily during the past several years, despite annual dues increases to

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