

Call for Nominations

Upon completion of the 1976 AAAS elections, the Committee on Nominations will meet to select candidates for the 1977 general election. The committee invites members of the Association to submit nominations, including self-nominations, for consideration at that meeting for the positions of president-elect and members of the Board of Directors.

Two members of the Board are elected each year. A list of present members is given on the contents page of *Science*. Candidates for terms to start on 1 January are listed in the 11 June issue (pages 1093-94).

Nominations should be sent to the Executive Officer, AAAS, 1776 Massachusetts Ave., NW, Washington, D.C. 20036, no later than 15 October. Each must be accompanied by a curriculum vitae of the proposed candidate.

raise combined scientific and legal problems yet to be considered.

Louis Battan of the Institute of Atmospheric Physics, University of Arizona, and Denver attorney Roger P. Hansen also focused on the opportunities for lawyers and scientists to work together toward resolving and understanding scientific issues.

Conference participants joined one of three working groups: (i) social implications of weather modification, (ii) institutional relations and dissemination of information, or (iii) risk-benefit analyses, where they reviewed the role of proper planning and action in approaching interdisciplinary questions and the priorities for allocating resources to preclude or resolve them. Other public policy factors were investigated, including division of research and operational responsibilities among governmental units and between public and private organizations concerned with weather modification. Participants concluded that an effective division of responsibilities will be necessary to determine who sets programmatic goals; who assesses cost/benefit factors; who defines what risks are acceptable; and who, if anyone, compensates persons who suffer losses during attempts to modify weather.

Leading the three groups were Barbara C. Farhar of Human Ecology Research Services, Boulder; Dean Mann, Department of Political Science, University of California at Santa Barbara; and

Stewart W. Borland, Economics Branch, Agriculture Canada, Ottawa.

Dean Mann described the Yuba City, California, episode in weather modification that resulted in extensive damage and extended litigation. His presentation confirmed the conclusions reached in all working groups that neither the legal system nor the scientific establishment alone is capable of predicting the physical effects of weather modification projects nor their legal consequences.

Conference rapporteurs Thomas F. Malone of the Holcomb Research Institute, Butler University, and Milton Katz of Harvard Law School emphasized the need for coordinating the intellectual resources of scientists and lawyers while reconciling the traditional differences in the ways these professionals define "fact" and structure the "fact finding" process.

Several consensus observations evolved during the conference. First, participants expected an increase in attempts to modify weather, both because people tend to do what is technically possible and because the perceived benefits often exceed the associated costs. Second, the group felt that a central issue appears to be whether concerned parties should take prospective legal precautions or rely solely on retroactive measures since redistribution of social costs and benefits resulting from weather modification cannot be assessed accurately in advance. Third, the conference agreed that weather modification must be considered a means toward achieving national or international goals, such as ecosystem stabilization or food protection, and not an end in itself. The fourth observation of the group was that the readiness of scientists and lawyers to cooperate in policy matters appears to be increasing. Members of both professions understand that scientific knowledge accumulates over time and that scientific "facts" are more likely than not subject to change. Legal processes cannot always wait for the certainty of science,

*Members of the AAAS-ABA group are: (Representing AAAS) Emilio Q. Daddario (co-chairman), Office of Technology Assessment, U.S. Congress; Robert Berliner, School of Medicine, Yale University; William Bevan, Department of Psychology, Duke University; Richard H. Bolt, of Bolt, Beranek & Newman, Inc., Cambridge; Ruth M. Davis, Institute for Computer Sciences and Technology, National Bureau of Standards; Vincent P. Dole, Rockefeller University Hospital, New York City; and David J. Rose, Department of Nuclear Engineering, Massachusetts Institute of Technology. (Representing ABA) W. Brown Morton, Jr. (co-chairman), of Morton, Bernard, Brown, Roberts & Sutherland, Washington, D.C.; Roger P. Hansen, of Hansen & O'Conner, Denver; Haywood H. Hillyer, Jr., of Milling, Benson, Woodward, Hillyer & Pierson, New Orleans; Harold Horvitz, of Guterman, Horvitz, Rubin & Rudman, Boston; Milton Katz, Harvard Law School; Lee Loevinger, of Hogan & Hartson, Washington, D.C.; and Preble Stolz, California Office of Planning and Research, Sacramento.

and persons working within the legal system often must determine what constitutes a "fact" without the benefit of an extended investigation.

The AAAS-ABA group* welcomes suggestions for future activities that focus on important issues of mutual concern and interest to scientists and lawyers.

Publication later this year of the proceedings of the Conference on Legal and Scientific Uncertainties of Weather Modification should encourage other thoughtful persons to consider the pressing problems that involve both legal and scientific uncertainties, and to work toward overcoming the institutional and social inertia we now face.

WILLIAM A. THOMAS
American Bar Foundation

Puerto Ricans Investigate Underrepresentation in Science Professions

Discrimination in the schools, negative counseling, and lack of genuine bilingual/bicultural education programs are some of the reasons that few Puerto Ricans living in the mainland United States enter the science professions.

A group of 22 Puerto Rican scientists offered these thoughts at an 11 May meeting sponsored by the AAAS Office of Opportunities in Science (OOS) at the New York Academy of Sciences.

The meeting, chaired by Warren Washington of the National Center for Atmospheric Research, chairperson of the AAAS Committee on Opportunities in Science, was the first gathering of mainland Puerto Rican scientists to address these broad issues.

The group of 12 men and 10 women, representing health, engineering, education, social work, and research and other academic fields, called the problem a reflection of the dire socioeconomic problems of Puerto Ricans in general. With extremely high drop-out rates, there are low numbers finishing high school at all, and of the even smaller numbers who enter college, even fewer pursue graduate or professional training, especially in the sciences. A socialization and assimilation process leads some of those who do continue their education away from the Puerto Rican community. Ultimately, this filtration process leaves a very small number of individuals who can function as scientists and be accessible to Puerto Rican youth as role models.

Among the numerous problems the scientists identified were education inadequacies of Puerto Rican students, especially in science; low teacher expectations of Puerto Rican students and negative or no counseling; and the need for special programs and institutions. The merging of Hostos Community College with another city college in the Bronx was deplored as a symbol of the disregard of Puerto Rican needs. Hostos had been serving "a unique and vital educational role" in the mainland Puerto Rican community.

Discrimination against Puerto Rican students from kindergarten through graduate school, and against Puerto Rican faculty as well, was described. Participants articulated a need for genuine bilingual/bicultural education, compensatory programs, adequate financial support, and numerous other programs.

The Puerto Rican scientists decided to organize themselves for effective concerted action to increase their own numbers. They wish to identify other Puerto Ricans in science living across the United States and to form a network of such individuals for communication, mutual support, and other activities. They asked to work regularly with AAAS and to be officially included in the OOS purview along with Blacks, Chicanos, and Native Americans.

Two of the Puerto Rican scientists, Maria Hardy, a biologist from Rutgers, and Pedro Barbosa, an entomologist from the University of Massachusetts, participated in the annual meeting of the Committee on Opportunities in Science held in Washington later in May.

A more detailed report of the meeting is available upon request from the OOS.

JANET WELSH BROWN

SHIRLEY MAHALEY MALCOM

Office of Opportunities in Science

Habitat: A Festive Air, Serious Business

Curtis L. Carter, associate professor of aesthetics and philosophy at Marquette University, and chairman of the AAAS American Values and Models of Habitation Summer Research Project, was the official AAAS representative to the United Nations' Habitat Conference in Vancouver. Following is his report of the conference.

A festive air surrounded the serious business of Habitat, the United Nations Conference on Human Settlements held 6 AUGUST 1976

27 May to 11 June in Vancouver, British Columbia.

On the Sunday before the conference opened, Margaret Mead, carrying her forked walking stick, and a Canadian Indian chief, carrying a ceremonial "talking stick," led the opening procession of an interfaith Habitat liturgy. For the 12 days following, there were films, displays of new technologies, mobile workshops, daily international arts performances, and the sober task of studying the problems and possibilities of human living communities.

Some 930 delegates representing 132 nations met to act on the recommendations which had been prepared in advance by the U.N. Habitat Secretariat. In plenary sessions and in three committees they examined and modified the U.N. documents. The final products of their work were a declaration of principles and documents making recommendations for national action and international cooperation.

Heading the U.S. delegation were Carla Hills, Secretary of the Department of Housing and Urban Development, and Russell Peterson, chairman of the Council on Environmental Quality.

Two complementary gatherings paralleling the official U.N. Conference were the Habitat Forum—a conference of nongovernmental organizations and the Vancouver Symposium—a closed conference of 24 scientists, planners, and humanists.

The forum was housed on Jericho Beach, 4 miles from downtown Vancouver, in several abandoned airplane hangars that had been remodeled by local volunteers using only recycled materials. It hosted displays, presentations, and meetings of conservationists, community activists, artists, alternate and "appropriate" technology advocates, and political and religious groups. Margaret Mead and Buckminster Fuller were among the speakers on a program that included theatrical presentations by folk artists of several countries and an open debate on nuclear energy. Some 2400 representatives from 56 countries, as well as several thousand local and international visitors, took part in forum discussions that led to the preparation of statements distributed through official channels to the U.N. delegates. The Habitat Forum expects to publish these documents this fall.

Forum participants broke down the broad Habitat topics of national settlement policies and strategies into questions of shelter, services, and public participation in decision-making. Discussion of self-help housing, global population is-

sues, technology gathering, women and settlements, water supply, and nuclear and solar energy use occupied much of the forum's time, but the program also branched out into esthetics and philosophy, in such sessions as "The Arts and Human Settlements," and "Social Justice and Human Settlement Policy."

Despite a steady flow of delegates between the official conference site and the forum, communication between the two areas was not as strong as many had hoped. Although Carla Hills and other national representatives were visible at various forum discussions, scheduling and transportation problems sometimes precluded active participation in both the U.N. Conference and the Habitat Forum.

The third component of Habitat, the Vancouver Symposium, convened prior to the official conference to prepare a set of recommendations for the U.N. delegates. The symposium was sponsored by the International Institute for Environment and Development (IIED), the National Audubon Society, and the Population Institute. Among the 24 symposium participants were Mead, Fuller, Barbara Ward, president of IIED, and Maurice Strong, former secretary-general of the U.N. Conference on the Human Environment.

With Ward serving as rapporteur, the symposium produced a declaration calling for increased attention to water and nuclear power problems and affirming that "mankind does not lack human and physical resources to create and regenerate truly communities."

One innovative communication technique at the Habitat Conference was the use of visual materials to portray living conditions all over the world. Each country prepared two or more documentary films to communicate selected problems and solutions, clips of which were used by delegates in the plenary meetings to illustrate their points. Some 250 films were available for viewing in a video center, which was open 16 hours a day. Regular showings of the films were scheduled in various conference locations, and a video tape system made it possible for official representatives to see any film at any time by simply requesting that it be shown.

If the Habitat Forum and the Vancouver Symposium did not have direct political influence on the U.N. Conference, they nevertheless acted as a significant force in giving wider scope to the U.N. endeavor. It was this breadth of participation that enabled the conference to accomplish its mission: The establishment of human settlement issues as na-

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