AAAS News

Association Awards Presented at Annual Meeting in Philadelphia

AAAS prizes for scientific research, fostering scientific freedom and responsibility, science journalism, and service to the scientific community were distributed at the 1986 Annual Meeting of the Association in Philadelphia last May. The Scientific Freedom and Responsibility Award, the Newcomb Cleveland Prize, the Behavioral Science Research Prize, and the Philip Hauge Abelson Prize were presented immediately preceding the president's Public Lecture, Wednesday, 28 May. The AAAS-Westinghouse Science Journalism Awards were given during the National Association of Science Writers' annual banquet at the Meeting, Tuesday, 27 May.

AAAS Scientific Freedom and Responsibility Award: Victor Paschkis, a leader in the field of social responsibility in science, and the Colegio Médico de Chile, whose physician members work to prevent the use of torture in their country, each received a 1986 Scientific Freedom and Responsibility Award.

Paschkis was honored for "his pioneering efforts in establishing the principle that scientists and engineers have a personal responsibility for the social consequences of their professional activity."

In 1940, shortly after emigrating from his native Austria, Paschkis established, at Columbia University, the first direct computer analog laboratory for heat flow and diffusion studies. In an unprecedented action, he insisted on his right to reject research contracts for work that he considered socially destructive.

Paschkis thus became one of the first individuals to formulate the idea that scientists and engineers must hold themselves responsible for the social consequences of their work. His dedication to this principle continued and, in 1949, he founded the Society for Social Responsibility in Science.

He later founded the Technology and Society Division of the American Society of Mechanical Engineers. His work contributed directly to the formation of the Society for Social Implications of Technology of the Institute of Electrical and Electronics Engineers and to the founding of the Environmental and Social Concerns Subcommittee within the American Society of Civil Engineers.

Paschkis initiated a course on technology and society (possibly the first such course) at Columbia University in 1965, organized numerous conferences relating technology to societal concerns, and spoke out on the subject in lectures throughout the world.

The Award selection committee noted ". . . Paschkis has fostered, throughout his professional career, a tradition that science and technology should contribute to the benefit of humankind and never to its harm or destruction. He has shown in particular, a tradition of personal responsibility for the consequences to humanity of professional activity, with emphasis on constructive alternatives to militarism."

The Colegio Médico de Chile was given the Scientific Freedom and Responsibility Award for "its professional and humanitarian efforts to stop the practice of torture in Chile."

The organization was established in 1947 and currently represents some 90 percent of Chilean physicians—9000—as members. Since the early 1980's, the Colegio Médico de Chile has increasingly called attention to and helped to prevent the use of torture by the government of Chile.

The Colegio Médico de Chile initiated internal investigations of physicians alleged to have participated in or covered up the physical abuse of political prisoners. It adopted guidelines to discourage professional complicity in torture and has sponsored programs to educate Chilean society—and the world at large—on the existence of torture in Chile and efforts to prevent it.

Officers and members of the Colegio Médico de Chile have been subjected to reprisals by the government, including arbitrary dismissal from their jobs, imprisonment, and internal exile.

In making this award, the judges noted that "the efforts of the Colegio Médico de Chile serve as a profound example of the tremendous importance of affirming and protecting professional integrity in response to repressive actions."

Juan Luis González, president of the Colegio Médico de Chile, came to Philadelphia to accept the award for the organization.

The AAAS Scientific Freedom and Responsibility Award was established in 1981 to honor scientists and engineers whose actions have exemplified principles of scientific freedom and responsibility. Honorees receive $1000 and a plaque of recognition.

AAAS–Newcomb Cleveland Prize: A report describing the three-dimensional structure of poliovirus, with important applications in microbiology, molecular biology, biophysics, immunology, and preventive medicine, won the Newcomb Cleveland Prize.

The report, "Three-dimensional structure of poliovirus at 2.9 Å resolution," was written by James M. Hogle, Research Institute of Scripps Clinic; Maria Chow, Massachusetts Institute of Technology; and David J. Filman, Research Institute of Scripps Clinic. The paper was published in the 27 September 1985 issue of *Science*.

Although poliovirus is one of the most intensively studied and best understood of human viral pathogens, it remains the cause of a disease uncontrolled in most developing countries.

"The insights provided by these three scientists," noted the Awards Committee, "should facilitate the design and interpretation of future studies to provide a better understanding of the structural basis of antigen-antibody reactions and the mechanisms responsible for neutralization of viral infectivity."

Hogle is an associate member of the Department of Molecular Biology at the Research Institute of Scripps Clinic; Chow is an assistant professor of applied biological sciences at MIT; and Filman is a postdoctoral fellow in the Department of Molecular Biology at the Research Institute of Scripps Clinic.

Hogle, Chow, and Filman divided the prize of $5000; each received a bronze medal.

The AAAS–Newcomb Cleveland Prize is awarded annually to the author(s) of a report or article published in *Science* that "includes original research data, theories, or syntheses and is a fundamental contribution to basic knowledge or a technical achievement of far-reaching consequences."

AAAS Behavioral Science Research Prize: Dane Archer of the University of California, Santa Cruz, and Rosemary Gartner of the University of Wisconsin, received the AAAS Behavioral Sci-

ence Research Prize for 1985.

The $1000 prize was awarded to Archer and Gartner for their theory describing how sanctioned killing during wartime increases the level of peacetime homicide.

They identified seven hypotheses concerning relationships between war and violent crime in their paper, "Violent acts and violent times: The effect of wars on postwar homicide rates." These hypotheses reflect competing theoretical models regarding the social consequences of war. Archer and Gartner conclude that most of the "nation-wars" in their study did experience substantial postwar increases in homicide rates.

The award-winning paper is a chapter from the book *Violence and Crime in Cross-National Perspective* (Yale University Press, 1984) by Archer and Gartner. The book won the 1985 Award for Outstanding Scholarship from the Society for the Study of Social Problems.

Archer is professor of sociology at the University of California, Santa Cruz; Gartner conducts research at the University of Wisconsin.

The AAAS Behavioral Science Research Prize, formerly the AAAS Socio-Psychological Prize, is awarded annually for a meritorious essay that furthers the understanding of psychological-social-cultural behavior of human beings. It is intended to encourage social inquiry in the development and application of the kind of methodology that has proved so fruitful in the natural sciences.

AAAS–Philip Hauge Abelson Prize: James A. Van Allen, space physicist, received the first AAAS–Philip Hauge Abelson Prize. Van Allen, best known as the discoverer of the "Van Allen Radiation Belts," was honored for his "distinguished career of scientific achievement and notable service to the scientific community." He was awarded the citation and a $2500 prize.

Van Allen's early research involved nuclear physics. The electronic experience gained in this endeavor led to his wartime work on radio-proximity fuses for gun-fired projectiles. This in turn led to his later search for cosmic rays using balloons, rockets, and combined balloons and rockets called "rockoons." These experiments were the basis for the scientific instruments he built for the first few U.S. satellites; they in turn led to the discovery of the Van Allen Radiation Belts. This work and later satellite work preceded a large number of fundamental discoveries in space physics, including the magnetospheres of Earth, Jupiter, and Saturn.

From 1951 until 1985, Van Allen served as head of the Physics and Astronomy Department at the University of Iowa, where he is now the Roy J. Carver Emeritus Professor of Physics.

The AAAS–Philip Hauge Abelson Prize was established in 1985 to honor a public servant in recognition of sustained exceptional contributions to advancing science, or a scientist whose career has been distinguished both for scientific achievement and for other notable services to the scientific community.

Peter Pella, winner of the AAAS drawing for a trip to the Annual Meeting, receives a membership certificate at the Member Resource Room in Philadelphia. From left: Marlene Zendell, AAAS membership projects manager; Pella; Gwendolyn Huddle, AAAS membership recruitment manager; and Eleanor Bullard, Pella's fiancée.

AAAS-Westinghouse Science Journalism Awards: Winners of the 1985 AAAS-Westinghouse Science Journalism Awards included representatives from newspapers, magazines, radio, and television. Five awards of $1000 each were given in recognition of outstanding reporting on the natural sciences and their engineering and technological applications, excluding medicine.

The 1985 winners and their entries were:

■ For science reporting in newspapers with over 100,000 daily circulation—Boyce Rensberger, for three articles, " 'Star Wars' splits experts into two camps," "Computer bugs seen as fatal flaw in 'Star Wars,' " and "H-bomb blast planned to test 'Star Wars' idea," published 3 March, 30 October, and 20 De-

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cember 1985 in the *Washington Post*.

■ For science reporting in newspapers with under 100,000 circulation (two winners)—Robert W. Andrews, for a three-part series, "Onondaga Lake: A Paradise Lost?" published 14 to 18 October 1985 in the Syracuse, New York, *Post-Standard*, and Mark Harden, for a special section, "Puget Sound: Bounty and Burden," published 19 May 1985 in the Everett, Washington, *Herald*.

■ For science reporting in general circulation magazines—Andrew C. Revkin, for an article, "Hard facts about nuclear winter," published in the March 1985 issue of *Science Digest*.

■ For science reporting on television—Timothy Ferris, Larry Botto, and Geoff Haines-Stiles for "Creation of the Universe," which aired on the Public Broadcasting Service on 20 November 1985.

Honorable mentions in the television category went to Barbara Fenster and Jim Compton for "A Forever Decision," which aired on KING-TV (Seattle) on 20 February 1985, and to Ed Yeates for "Mexico Earthquake: Quirks of Amplification, II," which aired on KSL-TV (Salt Lake City) on 1 October 1985.

■ For science reporting on radio—Rick McCourt for a two-part series, "Aquaculture," which was broadcast 7 and 9 October 1985 on National Public Radio.

An honorable mention in the radio category went to Michele Schiavoni for a 13-part series, "Skyhigh," which aired on a number of radio stations in Delaware during April, May, and June 1985.

The AAAS-Westinghouse Science Journalism Awards are supported by the Westinghouse Educational Foundation and administered by the AAAS.

Chalk Leaves AAAS, Frankel to Head CSFR Staff

Mark S. Frankel will become the new program head for the AAAS Committee on Scientific Freedom and Responsibility (CSFR) later this month. Rosemary Chalk, who served as the Committee's program head since its inception in 1976, left the Association in early June to move to Boston where she will write and consult.

Under Chalk's direction, the CSFR has become an integral part of the Association's activities, with four major ongoing projects on Science and Human Rights, Professional Ethics, Secrecy and Openness in Scientific Communication, and Scientific Communication and National Security. During her 10 years with the Association, Chalk led the CSFR's efforts in a number of programs and activities in each of these areas, organized and sponsored workshops and Annual Meeting symposia, and spearheaded the establishment, in 1981, of the AAAS Scientific Freedom and Responsibility Award.

The program that Frankel will direct now encompasses projects ranging from the documentation of human rights abuses through the use of forensic science to the professional ethics concerns of scientific and engineering societies.

Frankel is director of the Center for the Study of Ethics in the Professions at the Illinois Institute of Technology (IIT) in Chicago and adjunct associate professor of political science at IIT.

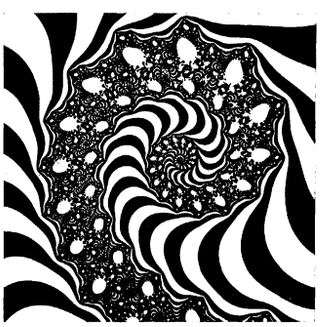
In previous work with the CSFR, Frankel co-directed the 1986 AAAS-IIT workshop on Professional Societies and Professional Ethics in Philadelphia, 24 and 25 May. In 1980, he served as co-principal investigator (with Chalk) for the AAAS Professional Ethics Project, and co-authored the project report, *Professional Ethics Activities in the Scientific and Engineering Societies*.

Frankel has written numerous articles on professional ethics, bioethics, and public policy with regard to science and technology. He received his Ph.D. degree in political science from George Washington University and his undergraduate degree from Emory University.

JOAN WRATHER
Office of Communications

Chaos at AAAS

The AAAS Science and Art Program is now featuring the "Frontiers of Chaos," computer graphics of fractal boundaries, exhibit.



The exhibit was produced by the research team "Complex Dynamics," at the University of Bremen, Federal Republic of Germany, and is now touring the world under the auspices of The Goethe-Institute for Promotion of the Study of the German Language Abroad and for International Cultural Cooperation. Transportation for the exhibit was provided by Lufthansa German Airlines. Sponsoring the exhibit with AAAS are the American Statistical Association, the Conference Board of the Mathematical Sciences, and the Mathematical Association of America.

"Frontiers of Chaos" will be open to the public Mondays through Fridays, from 9:00 a.m. until 5:00 p.m., 24 June to 15 August 1986, in the first floor lobby of the Association headquarters, 1333 H Street, NW, Washington, D.C.

AAAS Special Event at the "New" New York Hall of Science

AAAS members in the New York area are invited to a "AAAS Preview Opening" of the renovated New York Hall of Science on Tuesday, 22 July.

Members may attend an evening reception while previewing the museum's new exhibits and meeting other Association members. AAAS Board representatives and staff will be on hand to greet guests and answer questions about the Association. A membership resource exhibit will be on display as well. New York Hall of Science staff will be present to explain the museum's new facilities.

The event is sponsored by the AAAS Science and Technology Centers Project, a nationwide initiative funded by a grant from the National Science Foundation. The AAAS Office of Communications and Membership is also participating.

For further information and reservations, please call M. J. Miller at the Hall of Science 718-699-0005. The New York Hall of Science is located on the site of the 1964 World's Fair, 47th and 111th Street, Flushing Meadows Park, Queens.