Science and Human Imagination

Topics in the AAAS Annual Meeting subtheme of "Science and Human Imagination" reflect its catholicity: formation of stars and the solar system, mathematical modeling, the utility of science to art, technological assessment and transfer, science policy (both its political structure and quantitative approaches), and more.

In all, there will be 39 symposia, illustrating the centrality of science as one of the great exercises in human imagination, as well as one of the great challenges it poses to that imagination for our understanding and use, as a critical part of this year's meeting theme of "Science and the Quality of Life." Other subthemes are: "Science and Human Health," "Science and Human Environment," and "Science and the Metropolis." The specific symposia included under this subtheme are, themselves, grouped in the following categories:

In "Understanding the Physical Universe," we will explore the universe from the very large to the very small, as, for example, in the Frontiers of Physics, which will discuss our understanding of the very large and also of elementary particles. The large will also be the subject of Observational Tests of Theories of Gravitation and of The Formation of Stars and Solar Systems, which will be complemented by a review of recent results in The Exploration of the Solar System. On the more human scale, the physics of everyday experience will be the subject of Science for the Naked Eye. The Atmospheric and Hydroospheric Sciences in Transition will discuss global atmospheric research, as well as research on tropical weather, the Great Lakes, hail, and clouds. As a retrospective on one of the greatest exercises in the application of human imagination to our understanding of the physical universe, we will have a special symposium on Seventy Years of Special Relativity.

In "Use of Mathematical Models," two separate symposia are devoted to Contributions of Mathematical Models to Biological Discovery, with topics including the relationships between models and reality, the future needs in modeling, applications to population genetics, biochemical systems, enzyme synthesis, photosynthesis, and the application of far-from-equilibrium thermodynamics to biological systems. In addition, another symposium will discuss further applications to problems in ecology and evolutionary systems, and to the neurological systems and nerve-signal propagation. Ecological modeling will also be discussed in still another symposium, as will the applications of Mathematics in the Social Sciences. Finally, there will be a symposium on the theoretical and practical uses of the Finite Element Method of mathematics.

The set of symposia on "Technological Use and Goals" will address such facets as the use of technology in the Interfacial Dynamics of Cutting in a wide variety of materials and techniques; Science in the Service of Art as applied to the conservation, preservation, and restoration of monuments, artifacts, and paintings, as well as to the detection of forgeries; and Advances in Problem-Solving in Industrial Development; as well as a more general discussion of the Mode of Production from an anthropological and sociological point of view. Another symposium will discuss Opportunities for Technology, with a specific symposium on Establishing Goals for Weather-Climate Modification Activities. New Ideas toward Metric Conversion for the Public will discuss the implication of a change to the metric system in everyday activities. Finally, Technology Assessment will be discussed from the political and educational points of view, as well as in specific situations—for example, developing alternative work schedules, analysis of geothermal energy, and evaluating the relationship between community planning and urban mass transportation.

The subject of "Formulating Science Policy" is discussed in Science Policy in a Changing Political Environment through analysis of two major issues: (i) whether the President needs a science adviser, from the viewpoints of former presidential staff members and science-policy practitioners, and (ii) the need for better linkages between federally financed R & D and policy missions in energy, health and social policy, and foreign affairs. Factors in the formulation of science policy will also be discussed in symposia on The Use of

NOVA TV Series

The second NOVA series will premiere on stations of the Public Broadcasting System. The schedule for November is:

3 Nov. Why Do Birds Sing? Role of song in territoriality, the language of birdsong, acoustic properties of calls, and other ways in which birds acquire their songs.
17 Nov. The Hunting of the Quark. Search for the hypothesized and rather bizarre entities that could prove to be the fundamental building blocks of matter.
24 Nov. The Secrets of Sleep. Challenges traditional notions about how much sleep we need, argues that pills taken for insomnia may be doing more harm than insomnia itself, and also looks at dreams.
INTERSCIENCE INTERNATIONAL

In June of this year, the Board of Directors of AAAS authorized the establishment of an international and interdisciplinary scientific instrument exposition to be held in conjunction with the AAAS Annual Meeting and to replace the traditional exhibits of the meeting. The Board took this action because its members felt the need for a professional presentation of the significant tools of science to a gathering of scientists representative of all disciplines of scientific endeavor in this country.

For many years European scientists have enjoyed such an opportunity through Achema and Analytica, two of the largest interdisciplinary and international instrument exhibits held anywhere in the world. We believe that such a display in the United States will be a valuable asset to American science and we urge you to attend.

Invitations have been extended to the principal instrument manufacturers, both in this country and abroad, to demonstrate their equipment at the time of the Annual Meeting in New York and the response has been encouraging, despite our late start.

If your company wishes to participate in INTERSCIENCE INTERNATIONAL, please contact Edward B. Ruffing

INTERSCIENCE INTERNATIONAL
P.O. Box 874
Upper Montclair, N.J. 07043
for further information and brochures, or call Mr. Ruffing at (201) 746-7950.

Quantitative Information and Modeling in Public Policy Decision-Making and Management of Interdisciplinary Policy Research. Specific policy questions are addressed by symposia on Regulatory Decision-Making, The Use of the Technical Expert in the Justice System, What Is Urgent in Arms Control?, and Information Technology and Individual Privacy. Finally, a symposium on Western Standards and Stereotypes as Impediments to Development will discuss the difficulties encountered in transferring technology from developed to less-developed countries with emphasis on the social problems engendered by such transfer.

The problems in “Public Understanding of Science” are explored from the point of view of the responsibility of scientists in Responsibilities in the Use and the Misuse of Scientific Data and Social Consequences of Misleading and Inadequate Information about Science and by examining the role and participation of the citizen in Citizen Participation in Decision-Making and Telecommunication and Democracy, which will explore the ways in which technology can bring new vitality to democratic institutions.

This overview can only bring you the highlights of the major scientific and cultural events we are staging in New York. Obviously, full appreciation comes through attendance. Fill out and send in the advance registration and housing forms on pages 346 and 347 of this issue.—ARTHUR HERSCHMAN

AAAS PUBLIC LECTURES

National Geographic Society Public Lecture (26 Jan., 8:30 p.m.).
Kenan T. Erim (Professor of Classics; Director, Aphrodias Excavations, New York University).
Aphrodias.

Co-Chairmen’s Public Lecture (27 Jan., 4:30 p.m.).
Max Black (Susan Linn Sage Professor of Philosophy and Humane Letters; Academic Head of Unit on Humanities, Science, and Technology, Cornell University).
Is Scientific Neutrality a Myth?

AAAS Public Lecture (27 Jan., 8:30 p.m.).
Thomas Stockham (Professor of Computer Science, University of Utah).
Recovering Caruso.

AAAS Public Lecture (28 Jan., 4:30 p.m.).
Topic to be announced.

AAAS Public Lecture (28 Jan., 8:30 p.m.).
Edwin H. Land (Chairman of the Board, President, and Director of Research, Polaroid Corporation).

Color Vision and the Retinex Theory: A Demonstration Lecture.

Phi Beta Kappa Public Lecture (29 Jan., 4:30 p.m.).
Lewis M. Branscomb (Vice President and Chief Scientist, IBM Corporation).
Science and Art.

AAAS Retiring President’s Public Lecture (29 Jan., 8:30 p.m.).
Roger Revelle (Director, Center for Population Studies, Harvard University).
Topic to be announced.

AAAS Public Lecture (30 Jan., 4:30 p.m.).
Russell Peterson (Chairman, Council on Environmental Quality).
The Impact of Population on Resources, Environment, and the Quality of Life.

AAAS Public Lecture (30 Jan., 8:30 p.m.).
Isaac Asimov (Associate Professor of Biochemistry, Boston University School of Medicine).
The Science Fiction Writer as Prophet.
ADVANCE REGISTRATION FORM

☐ Enclosed is $20 Registration Fee (Program and Convention Badge)

☐ Enclosed is $25 Registration Fee (for attendee and spouse) (One Program and two Convention Badges)

☐ Enclosed is $10 Student Registration Fee (Program and Convention Badge)

☐ Enclosed is $10 One-Day Registration Fee (Program and Convention Badge) (Specify Day)

Program and badge will be mailed in early December.

Registrations received after 10 January will be held at the AAAS Information Booth.

NAME: ____________________________ (Last Name) ____________________________ (First) ____________________________ (Middle Initial)

MULTIPLE REGISTRATION:
(List full name for spouse and other registrants)

MAILING ADDRESS: ____________________________ (Street) ____________________________ (City/State) ____________________________ (Zip Code)

INSTITUTION OR COMPANY: ____________________________ (City) ____________________________ (State) ____________________________ (Zip Code)

CONVENTION ADDRESS: ____________________________ (Hotel or Street Address) ____________________________ (Where you can be reached)

Mail to: American Association for the Advancement of Science, Dept. R, 1515 Massachusetts Ave., NW, Washington, D.C. 20005

SURVEY OF ATTENDEES
Annual Meeting, New York City, 26–31 January 1975

Your answers to the following questions will help us in planning future AAAS Annual Meetings. Please complete the following form and either return it with your registration form or send in separately (to the same address) if you wish to respond anonymously (in any case, the two forms will be processed separately).

Principal Professional Interest

11 ☐ Physical, mathematical
12 ☐ Biological, medical
13 ☐ Engineering
14 ☐ Social, behavioral
15 ☐ Science policy
16 ☐ Other professional (other)

Principal Professional Activity

21 ☐ Teaching, education
22 ☐ Health practice
23 ☐ Other practice, consulting
24 ☐ Research, development
25 ☐ Administration
26 ☐ Other professional (other)

Institutional Affiliation Type

31 ☐ University, 4-year college
32 ☐ Other educational
33 ☐ Industrial, commercial
34 ☐ Other private
35 ☐ Government
36 ☐ Other professional (other)

Highest Educational Level

41 ☐ Doctoral Degree
42 ☐ Master's Degree
43 ☐ Other professional
44 ☐ Bachelor's Degree
45 ☐ Other professional (other)

Age

51 ☐ Under 26 years
52 ☐ 26 to 35 years
53 ☐ 36 to 45 years
54 ☐ 46 to 55 years
55 ☐ 56 to 65 years
56 ☐ Over 65 years

Distance Traveled to Meeting

61 ☐ Under 51 miles
62 ☐ 51 to 100 miles
63 ☐ 101 to 200 miles
64 ☐ 201 to 500 miles
65 ☐ 501 to 1000 miles
66 ☐ Over 1000 miles

Membership: in AAAS ☐, in Affiliate ☐, in Affiliate (specify) ☐, Neither ☐
Reservations

HOTEL RATES* (Per Day)

The American Association for the Advancement of Science will hold its 1975 Annual Meeting in New York City, 26–31 January. The AAAS registration and information desks will be located in the Albert Hall at the Americana of New York. The following hotels will be used for housing:

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<th>Hotel</th>
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<th>Double</th>
<th>Twin</th>
<th>Suites**</th>
<th>Parking</th>
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<td>1) AMERICANA OF NEW YORK***</td>
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* New York Sales Tax, 8%; New York City Room Tax, $1 per night; $10 additional charge for cots and rollaway beds. If rate specified is not available, the next available higher rate will be assigned.

** One-bedroom parlor suites; rates for larger suites available upon request.

*** Children under age 14 accommodated at no extra charge in same room with parents; four persons per room maximum.

HOTEL RESERVATIONS FORM  
Mail to: AAAS Housing Bureau, c/o Reservation Manager, Americana Hotel, 811 Seventh Avenue, New York, N.Y. 10019

CHOICE OF HOTEL:  First________________________________________ Second____________________________________

ROOM:  □ Single  □ Double  □ Twin  □ Suite  Preferred Rate $________

ARRIVAL:  Date_________________________; a.m.________ p.m.  Be sure to list definite arrival and departure date and time. Hotel reservations will be held only until 6 p.m. unless otherwise specified.

DEPARTURE:  Date_________________________; a.m.________ p.m.

NAMES AND ADDRESSES OF ALL OCCUPANTS OF ROOMS

Name________________________________________ Name________________________________________

Address________________________________________ Address________________________________________

City________________________ State________ Zip________________________ City________________________ State________ Zip________________________

Name________________________________________ Name________________________________________

Address________________________________________ Address________________________________________

City________________________ State________ Zip________________________ City________________________ State________ Zip________________________

Individual Requesting Reservations________________________________________
Science and Human Imagination

Arthur Herschman

Science 186 (4161), 344-347.
DOI: 10.1126/science.186.4161.344

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