

26-31 January 1975

New York City

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 Hydrospheric 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 symposi-

um 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 be discussed in symposia on *The Use of*

NOVA TV Series

The second NOVA series will premier 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.

10 Nov. *How Much Do You Smell?* Research on the sense of smell in insects and humans.

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.

Boston in '76

It is not too early to start thinking about our next Annual Meeting which will be held in Boston during the Bicentennial year, 1976. If you have suggestions about themes and symposia, please send them to the AAAS Meetings Office, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.

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 trans-

ferring 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 Partici-*

pation 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, Aphrodisias Excavations, New York University).
Aphrodisias.

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.).

Dixy Lee Ray (Chairman, U.S. Atomic Energy Commission).
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.