



**Annual Meeting**  
**Houston**  
3-8 January 1979

## Meeting Program—Part II

Register in advance and receive a *free* 1979 AAAS Calendar with your Program; housing and registration forms can be found on pages 620 and 621. For further details, see the Preliminary Program. *Science*, 29 September, pages 1206 to 1216, and Tours and Cultural Events, *Science*, 13 October, pages 205 to 207.  
HOTEL CODES: Shamrock Hilton . . . SH; Houston Marriott . . . HM

The theme for the forthcoming AAAS Annual Meeting is "Science and Technology: Resources for Our Future," and it is exemplified in the ten Public Lectures already described (Preliminary Program, *Science*, 29 September, pages 1206 to 1216). The wide range of the 138 individual symposia further define this theme, as can be seen in the detailed listing of the first 66 symposia (*Science*, 27 October, pages 416 to 420) and in the description below of the 72 symposia—grouped by category representing the general areas of social science, technology, and policy issues—which together make up the remainder of the 5-day Houston Meeting Program.

I am sure that you will find that all 138 symposia deal with important and interesting topics and that some will be of great importance to you in both your personal and professional activities. **Plan to come to Houston in January.** We promise you a warmer environment for your body and a stimulating environment for your intellect. To come, fill out and send in the **housing** and **registration forms** on pages 620 and 621. And as an added fillip, if you register in advance we will have the new 1979 AAAS Calendar waiting for you when you pick up your Program in Houston.

—ARTHUR HERSCHMAN



The Galleria in Houston was inspired by the 110-year-old Galleria in Milan, Italy. It offers shops, restaurants, art galleries, cinemas, an ice-skating rink, and two hotels. [Greater Houston Convention and Visitors Council]

### 9. Social and Behavioral Sciences

**Glimpses Into Man's Past: The Development of Man (3 Jan., 3:00 p.m., SH):** Anthropology and archaeology, ice age symbol, archaeoastronomy.

Rolf M. Sinclair, Fred Wendorf, Alexander Marshack, Ray A. Williamson.

**Hemispheric Dichotomy: Fact or Fantasy? (4 Jan., 9:00 a.m., SH):** Neurological foundations, the divided brain, internally controlled movements, linguistic and spatial competencies.

Brenda Milner, Norman Geschwind, Roger Sperry, Doreen Kimura, Roger N. Shepard.

**Immigrants: New and Old (4 Jan., 3:00 p.m., SH):** Opportunities, small business, cheap labor, Blacks, Eastern European groups, earnings, immigration policy.

Charles Hirschman, Eugene P. Erickson, William L. Yancey, Edna Bonacich, Stanley Lieberman, Alejandro Portes, Robert L. Bach, Charles B. Keely, Avery M. Guest.

**What Kind of Social Science Is Scientific? (5 Jan., 9:00 a.m., SH):** Models of man, models of culture, scientific sociology, holism and hermeneutics, science, art and morality.

Christie W. Kiefer, David Kaplan, Monica B. Morris, Hubert L. Dreyfus.

**Biology and Culture and Human Evolution (5 Jan., 3:00 p.m., SH):** Equality and evolution, kin to classes, myths of anthropology, human differences.

Irving W. Wainer, Margaret S. Collins, Theodore A. Bremner, Donald C. Johansen, Peggy Dobbins, Rena Gropper, Stevan Chorover, Richard Goldsby, Jonathan King.

**Feminism and the Philosophy of Science (6 Jan., 9:00 a.m., SH):** Patriarchal myth, feminist method, women and nature, planetary consciousness, psychology.

S. Leigh Star, Sandra Harding, Mary Daly, Barbara Dubois, Susan Griffin, Pat Hynes.

**Women and Scientific Research (6 Jan., 3:00 p.m., SH):** Lesbianism, feminism versus science, fetishism, experimentation on women, sexism.

Sandra Harding, S. Leigh Star, Lynda Birke, Sarah Hoagland, Janice Raymond, Beverly Smith, Julia Penelope Stanley.

#### **Interdisciplinary Perspectives on Demographic Behavior**

**(7 Jan., 9:00 a.m., 3:00 p.m., SH):** Microeconomic theory, fertility, interpersonal behavior, Fishbein model, measurement theory, hunter-gatherers, anthropological approach.

Thomas K. Burch, Robert J. Willis, Barbara F. Meeker, N. Krishnan Namboodiri, Richard P. Bagozzi, M. Frances Van Loo, Toni Falbo, Gary H. McClelland, Nancy Howell, Peggy F. Barlett.

**Psychological Dimensions in the Acculturation Process: Theory, Models, and Some New Findings (8 Jan., 9:00 a.m., HM):** Quantitative models, adaptation, extended family, Mexican Americans, biculturalism, Cuban Americans.

Amado M. Padilla, Esteban L. Olmedo, John W. Berry, Susan E. Keefe, Jose Szapocznik, Christine Torres-Matrrullo.

### **10. Personal and Family Development**

**The Making of Child and Family Policy: Does What We Know Affect What Is Done? (4 Jan., 9:00 a.m., 3:00 p.m., HM):** National Academy of Sciences, Carnegie Council report, family impact seminar, policymaking, legislative perspectives, nutrition.

Lyn Chambers, Harold C. Wallach, John A. Butler, William Kessen, Ruth Hubbell, Allan J. Lichtman, Marvin Sussman, John Martin, Kristen W. McNutt, Nicholas Hobbs, Michael O'Keefe.

#### **Paradigms and Prejudices in Research on Homosexuality**

**(5 Jan., 9:00 a.m., HM):** Sociobiology, gay couples, social sex roles, Bell/Weinberg study.

Noretta Koertge, Michael Ruse, Pepper Schwartz, John P. De Cecco, Frederick Suppe, Alan P. Bell.

**Demographic, Biographical, and Structural Perspectives on Human Life Course (5 Jan., 9:00 a.m., 3:00 p.m., HM):** Historian's view, Terman's gifted women, college professors, personal myth, the elderly, mental health, mathematics and poetry.

Kurt W. Back, Tamara K. Hareven, Eleanor W. Willemsen, Robert J. Havighurst, Barbara Myerhoff, Matilda White Riley, Halliman H. Winsborough, Bernice L. Neugarten, Toni Antonucci, Steven Dubnoff, Richard Kulka.

**Violence in the Family: Psychiatric, Sociologic, and Historical Perspectives (6 Jan., 9:00 a.m., 3:00 p.m., HM):** Causes, ethnopyschiatric dimensions, television viewing, police and justice systems.

Maurice R. Green, Murray A. Strauss, John P. Spiegel, Donald A. Bloch, Louis Jolyon West, Jerome L. Singer, Dorothy G. Singer, Morton Bard, Lynette Friedrich-Cofer, Hilde Bruch.

**Frontiers in Aging (7 Jan., 9:00 a.m., 3:00 p.m.; 8 Jan., 9:00 a.m., HM):** Physiology, biochemical aspects, membrane biology, gerontological pharmacology, geriatric medicine, nutrition, drug use and misuse, health care, research priorities, National Institute on Aging, academic centers.

Leah M. Lowenstein, Jay Roberts, Charles J. Parrish, Edward Masoro, Richard C. Adelman, Bertram Sacktor, Vernon Young, John Rowe, Lester Smith, Robert Benedict, Charles Gaitz.

**The Outer Limits of Human Performance and Educability (8 Jan., 9:00 a.m., SH):** Performance potential, field theory

approach, unconscious and habitual patterns, personal growth, social limits.

Jerry L. Fletcher, Frank Barron, George T. L. Land, Dale G. Lake, John N. Williamson.

### **11. History and Philosophy of Science**

**The Usefulness of Marxist Dialectics in Science (3 Jan., 3:00 p.m., SH):** Scientific usefulness, individual and society, Marxist materialism, philosophical basis, causality.

Lloyd Motz, Lester Talkington, Frank Cunningham, Eleanor Leacock, Victor Perlo, Jean Pierre Vigier, Garland E. Allen.

**China's Science in World Perspective (4 Jan., 9:00 a.m., 3:00 p.m., SH):** Politics of Chinese science, chemistry, biomedical sciences, oceanography, astronomy, geography, earth sciences, plant protection, environmental sciences.

Leo A. Orleans, Patricia Jones Tsuchitani, Walter R. Rosenblith, Richard P. Suttmeier, John Baldeschwieler, Howard Temin, John H. Ryther, Leo Goldberg, Clifton Pannell, Edward C. T. Chao, Robert Metcalf, Baruch Boxer.

**Science and Society—A Comparative History of Eugenics in Four Countries: U.S.S.R., Weimar Germany, United States, and England (5 Jan., 9:00 a.m., SH):** American and English comparison, Soviet movement, Weimar politics.

Garland E. Allen, Daniel J. Kevles, Mark B. Adams, Bonnie Bluestein, Val W. Woodward, Loren R. Graham.

**Thomas A. Edison: A Critical Examination on the Occasion of the Centennial of Electric Lighting (5 Jan., 3:00 p.m., SH):** Incandescent lamp, the scientists, style of invention, history of technology and science.

David A. Hounshell, Robert E. Conot, W. Bernard Carlson, Christopher S. Derganc, Reese V. Jenkins, James E. Brittain.

**One Hundred Years of Scientific Psychology: 1879–1979 (6 Jan., 9:00 a.m., 3:00 p.m., SH):** Wilhelm Wundt; new dualism; psychology's shifting relations; mind, body, and spirit; concept of motivation; learning; diagnostic fashions.

Gregory A. Kimble, Barbara C. Ross, Arthur L. Blumenthal, Eugene A. Galanter, David Leary, Daniel N. Robinson, Charles N. Cofer, Ernest R. Hilgard, William A. Hunt.

**The Einstein Centenary (7 Jan., 9:00 a.m., 3:00 p.m., SH):** The red shift, problem of motion, philosophers, unstudied topics, general theory of relativity, experimental challenges, black holes, observational cosmology.

John J. Stachel, Peter G. Bergmann, John Earman, Peter Havas, Robert S. Cohen, Irwin Shapiro, Robert Geroch, Beatrice Tinsley.

**The Role of Consciousness in the Physical World (8 Jan., 9:00 a.m., SH):** Extension of science, psychophysical interaction, psi research, the probe and the probed, psychological and psychic research.

Robert G. Jahn, Eugene P. Wigner, Charles Honorton, Harold E. Puthoff, R. Targ, E. C. May, John Archibald Wheeler, Willis W. Harman.

### **12. Education**

**Issues in Science Education (3 Jan., 3:00 p.m., SH):** Philosophies of education, politics and professionalism, vested interests.

Marjorie H. Gardner, Richard L. Hopkins, Herbert A. Smith, Jay Barton.

**Minority Access and Representation in Higher Education: An Empirical Assessment (4 Jan., 9:00 a.m., SH):** Selection poli-

cies, Black students, standardized testing, career outcomes, access to professional schools, legislative remedies.

Gail E. Thomas, Edgar Epps, Charles Willie, Doris Y. Wilkinson, James E. Blackwell, Frank Brown, Helen Astin.

**How Academies of Science Can Communicate Science to the General Public (4 Jan., 9:00 a.m., SH):** Public values and understanding, museums, answers and questions.

Richard J. Raridon, William A. Blanpied, William C. Schmitt, Howard J. Lewis.

**Prototypes of New Science Education (4 Jan., 3:00 p.m., SH):** Scientifically disadvantaged, science instruction, college-level mathematics, project PROCEED, information systems, technology transfer.

Peter S. Signell, F. James Rutherford, Rustum Roy, Ross L. Finney, Karen C. Cohen, Ernest J. Henley, Robert L. Everett, Gregg Edwards.

**Programming Junior Academy of Science Activities (5 Jan., 3:00 p.m., SH):** People resources, student research, organization, funding, environmental activities.

Frank W. Starr, Elemer Bernath, Sister M. Gabrielle Maze, LeRoy Lee, Lynn Edward Elfner, James D. Welker.

**The Public Understanding of Organized Science (6 Jan., 9:00 a.m., SH):** Attentive public, young adults, mobilized public.

Jon D. Miller, Keith M. Wulff, Gabriel Almond, Robert Suchner, Alan Voelker, Kenneth Prewitt, Robert Pearson, Todd LaPorte, George Tressel.

**The Anatomy of Controversy: Scientific Freedom and Responsibility for Teaching (6 Jan., 3:00 p.m., HM):** Anticipating conflict, genetics, evolution, textbook writers.

H. Bentley Glass, Arthur H. Livermore, Fletcher Watson, Paul Wehr, Susan Carpenter, Jack Carter, John Moore.

**The Role of the Professions in Undergraduate General Education (7 Jan., 9:00 a.m., SH):** Panel discussion.

William J. Winslade, Bernard Towers, Anna Harrison, Harold L. Hodgkinson, Robert Baum, Norman Cousins.

#### **Programs in Science for Precollege Handicapped Students**

**(7 Jan., 3:00 p.m., SH):** Archeological experience, environmental science, the deaf, the physically handicapped, marine science.

E. C. Keller, Jr., Martha Ross Redden, Noel G. Thornburg, Robert Rehboldt, Manjula B. Waldron, Edward L. Pizzini.

**Model Programs: The Research Base and Implications for Performance-Based Teacher Education Program Development and Evaluation (7 Jan., 3:00 p.m., SH):** Characteristics of exemplary projects; advantages, limitations, and criticisms; implications.

Donald W. McCurdy, Robert K. James, Howard L. Jones, Gene E. Hall.

### **13. Information and Communication**

**Technology and Art: Present and Future (3 Jan., 3:00 p.m., HM):** Active interaction, computer animation system, science and art.

Hugh H. Miller, Reginald Pollack, Rustum Roy, Charles A. Csuri, Gregg Edwards, E. P. Miles, Jr.

**Recent Technological Advances in the Speech Sciences (4 Jan., 9:00 a.m., HM):** Analysis, synthesis, and perception; machine models; physiology research; aids for the deaf.

June E. Shoup, Dennis H. Klatt, D. Raj Reddy, Osamu Fujimura, Moise H. Goldstein, Jr.

**General Systems Research: Science? Methodology? Technology? (4 Jan., 3:00 p.m., HM):** Foundations, biology, social systems, management, industry.

B. R. Gaines, M. Bunge, R. Rosen, S. Braten, R. Ackoff, P. Checkland.

Downtown Houston skyline with Sam Houston Park in the foreground. [Houston Chamber of Commerce]



**Individual and Social Electronics: Coping, Communicating, Understanding (5 Jan., 3:00 p.m., HM):** Personal computer, a learning society, philosophy and society.

Joseph M. Dasbach, Joseph I. Lipson, Gregg Edwards, Alan C. Kay, John Seely Brown, Michael Novak, Joseph Weizenbaum.

**The Future of Electronic Communications (6 Jan., 9:00 a.m., 3:00 p.m., HM):** Perspective on trends, quadrillion geophysical data bits, computerized conferencing network, science news on television, Congress, social impacts, criminal justice systems, social change, policy options.

Madeline M. Henderson, Starr Roxanne Hiltz, Marcia J. MacNaughton, Ira Cotton, Carl H. Savit, John Bregenzer, Joseph Martino, Stuart Umpleby, Murray Turoff, A. E. Cawkell, Kenneth Laudon, Alan F. Westin, Walter Hinchman.

**Information Transfer and Effective Utilization of Science and Technology (7 Jan., 9:00 a.m., HM):** Transfer of technological information, applied research, communication networks, interactive information systems, interdisciplinary information transfer.

Carole Ganz Brown, Arthur Gerstenfeld, Edwin E. Olson, Michael L. Tushman, Martin C. J. Elton, Ronald G. Havelock.

**Evolving Economics and Technology of Science Publishing**

**(7 Jan., 3:00 p.m., HM):** Advances, economics, copyright, library and information centers.

James Barsky, D. H. Michael Bowen, Seldon W. Terrant, Wallace Stettinius, Elwood K. Gannett, Marjorie Laffin, Gerald Sophar.

## 14. Energy

**Underground Coal Gasification (3 Jan., 3:00 p.m., SH):** Program of Department of Energy, current technologies, environmental effects, aquatic ecosystems, power production.

Esther M. Smith, Edward L. Burwell, Charles F. Brandenburg, Harold L. Bergman, Linda F. Atherton.

**Long-Term Energy Transitions: Implications for Alternative Energy Strategies (4 Jan., 9:00 a.m., 3:00 p.m., SH):** Oil transition, gasahol, solar energy, human behavior, California research and development policy, federal incentives policy.

August W. Giebelhaus, Lewis J. Perelman, Michael D. Yokell, Joseph Pratt, Ethan B. Kapstein, Mark Christensen, Ronald Larson.

**The Nuclear Waste Management Controversy: Can Conflicting Values Be Reconciled? (5 Jan., 9:00 a.m., SH):** Panel discussion.

Dorothy S. Zinberg, Roger W. A. LeGassie, Gus Spaeth, Dorothy W. Nelkin, Peter G. Montague, Harvey Brooks, Alexander B. Trowbridge, Sanford A. Lakoff.

**Challenges in Assessing Oil and Gas Resources, and the Impact on National Planning (5 Jan., 3:00 p.m., SH):** Importance of assessments, geologic uncertainties, economic uncertainties, methods of estimating, recent estimates.

John D. Haun, David A. White, Lincoln E. Moses, John M. Parker, Earl F. Cook, Harry M. Gehman, Charles D. Masters.

**Commercializing Alternatives: Public-Private Sector Relationships in Energy R&D (6 Jan., 9:00 a.m., SH):** Energy policy, commercializing federally funded technologies, commercializing new technologies.

Irvin L. White, Mary R. Hamilton, Allan R. Hoffman, H. Richard Blieden, David W. Jones, Jr., Jon Veigel, Walter S. Baer, Anthony W. Adler.

**The Role of the Social Sciences in Energy Policy and Programs (6 Jan., 3:00 p.m., SH):** Social science research, Department of Energy, OSTP/DOE working group.

Kenneth M. Friedman, Thomas J. Wilbanks, Joel Snow, Victoria J. Tschinkel, Cecil D. Barker, Paul P. Craig.

**Adapting Social Structures to an Energy-Short World (7 Jan., 9:00 a.m., SH):** Public forum, electric power supply, community planning, governmental regulation and free market.

Philip C. White, A. Berry Crawford, Edward H. Allen, W. Donham Crawford, Robert L. Morris, Michael O'Hare, Gregory A. Daneke.

**Energy and Society (7 Jan., 3:00 p.m., SH):** Energy and man, freedom and values, social issues.

Charles J. Ryan, Richard N. Adams, Earl Cook, Fred Cottrell.

## 15. Technology and Engineering

**The Metric System: Costs versus Benefits (3 Jan., 3:00 p.m., SH):** Case for metrication, optimized metric fastener, measurement on a human scale.

David F. Bartlett, Kenneth E. Boulding, Louis F. Sokol, Stanley E. Mallen, Richard Carrigan, David T. Goldsman.

**The Measurement of Industrial Innovativeness (3 Jan., 3:00 p.m., SH):** Problems of measuring, potential indicators, downstream outputs, innovative activity.

Lawrence M. Kushner, Joseph P. Martino, Albert H. Rubenstein, Bela Gold, Eliezer Geisler, Aaron J. Gellman, Stephen Feinman, Robert R. Wright, George Heilmeier, Julius D. Heldman.

**Manufacturing Technology: A Factor in the Productivity and the World Competitiveness of U.S. Industry (4 Jan., 9:00 a.m., 3:00 p.m., SH):** Current status, problems and issues.

Joel D. Goldhar, Jack Baranson, John W. Bernard, Harvey E. Buffum, George E. Dieter, Wilbur S. Mann, Gustav Olling, Carl W. Silha, Jordan Baruch, Pierce T. Angell, Frederick L. Haynes, Robert J. Mayer, Rolf Piekarz, Robert H. Pry.

**Technological and Legal Aspects of Noise Control (5 Jan., 9:00 a.m., SH):** Some technological solutions, traditional legal attempts, federal laws.

William A. Thomas, Richard A. Scribner, Emilio Q. Daddario, William W. Lang, Henry Thomas, Milton Katz.

**The Practice of Engineering versus the Pursuit of Science**

**(5 Jan., 3:00 p.m., SH):** Public policymaking, R&D funding, a national foundation for the professions, education, industry view.

Thelma Estrin, Myron Tribus, Bruno O. Weinschel, Allen B. Rosenstein, Robert F. Cotellessa, Arthur P. Stern.

**Large-Scale Transportation of Coal and Coal-Derived Energy: Alternatives and Impacts (5 Jan., 3:00 p.m., SH):** National dimensions, slurry pipelines, rail and highway, electrical transmission, policy aspects.

Martin D. Robbins, Aaron Gellman, Robert R. Faddick, Jack Kintslinger, Abraham Gerber, John S. Gilmore.

**The Impact of Regulatory Environment on Innovative Decisions (6 Jan., 9:00 a.m., HM):** Natural resource development, insurance reimbursement, hazardous materials regulation, impact on technology.

Manoucher Parvin, Ralph C. D'Arge, David Brookshire, Richard Dusansky, Allen V. Kneese, Stephen Finch, Melvin Kranzberg, Gary Sellers, William S. Vickrey.

**Human Factors of Outer Space Production (6 Jan., 3:00 p.m.,**

**SH):** Man and machine design, physiological criteria, habitat requirements, adaptive behavior and competence, economic factors.

T. Stephen Cheston, David L. Winter, Allen J. Louviere, Paul C. Rambaut, Frank H. Samonski, Jr., Richard L. Kline, Kirmach Natani, Klaus P. Heiss.

**Community Science and Technology: Experience from the Communities (8 Jan., 9:00 a.m., SH):** New York's Lower Eastside, South Bronx, Chicago, rural areas in Texas, San Bernardino.

Craig Decker, Mary Ann MacKenzie, Michael Freedberg, Roman Rueda, Scott Bernstein, Pliny Fisk, Daria Fisk, Valerie Pope, Robert Ying.

## 16. Technology and Development

**Management of Energy-Related Growth in Rural Areas**

**(3 Jan., 3:00 p.m., SH):** Social impact assessment, community planning, preliminary results in the south and west, mitigation strategies.

Don L. Boyer, Gary L. Watts, James G. Thompson, Robert L. Valeu, Elizabeth Lake, Elizabeth Peelle, Joel Darmstadter, Ed Smith, Mike Enzi.

**The Impact of the Claims Settlement and Pipeline Construction on Alaska's Native People (4 Jan., 9:00 a.m., 3:00 p.m., SH):** Alaska native regional corporations, Alaska native economy, environment, land use planning, education and government, response to new Institutions.

Sam Stanley, June Helm, Oran R. Young, B. Stephen Strong, David M. Hickok, Walter B. Parker, John W. Schaefer, Emil Notti, William Timme, Dennis Demmert, Jane P. Demmert, Rosita Worl, Thomas R. Berger.

**The Impact of Technological Change on Women in Development (5 Jan., 9:00 a.m., SH):** Policy analysis, rural development, food production, processing, and preservation, Agency for International Development.

Melinda Cain, Roslyn Dauber, Elise Boulding, Irene Tinker, Arvonne Fraser, Ruth Addams, Norman Brown, Elizabeth Colson, Daniel Lerner.

**The Role of Elites in International Development (5 Jan., 3:00 p.m., SH):** Decentralization in Tanzania, Mexican transnational executives, National University, development in Africa.

James H. Stirling, George E. Marcus, James W. Adams, Ignacio Millan, Larissa Lomnitz, Ali A. Mazrui.

**Opportunities for U.S.-Mexican Scientific and Technological Cooperation (6 Jan., 9:00 a.m., 3:00 p.m., SH):** Marine resources, bioaline research, energy, geological and geophysical research, universities, technological research institutes, U.S.-Mexican bilateral agreement.

Alejandro Orfila, Marcelo Alonso, Eduardo Feller, James W. Rowe, Agustin Ayala-Castañares, Harris B. Stewart, Jr., Fernin Reygadas Macedo, Emanuel Epstein, Gustavo Best Brown, James N. Brune, Cinna Lomnitz, Victor L. Urquidi, Edmundo de Alba, William D. McElroy, A. Richard Kassander, Jr., Guillermo Soberon, Guillermo Fernandez de la Garza, James P. Blackledge, Edmundo Flores, Roger Revelle.

**Economic Aspects of Science and Technology Policy in Latin America (7 Jan., 9:00 a.m., SH):** Institutional linkages, economic and institutional climate, light capital technologies, political intervention.

Dilmus D. James, Allen D. Jedlicka, James H. Street, Fernando Chaparro, Gustav Ranis, Carlos Davila, William Glade, Gordon Smith, Thomas DeGregory.

**Development of Infrastructures for Science and Technology in**

**Developing Countries: Indigenous and U.S. Goals and Responsibilities (7 Jan., 3:00 p.m., SH):** Latin America, East Africa, the subcontinent, scientific cooperation.

Charles V. Kidd, Mary Pat Williams, Victor L. Urquidi, Aklilu Lemma, M. Anandakrishnan, Peter F. Cowhey.

**Strategies in Graduate Education in Science and Technology**

**(8 Jan., 9:00 a.m., SH):** Needs of LDC students, role of U.S. universities, bilateral links, case study, indigenous research capacities, foreign graduate student.

Michael J. Moravcsik, R. S. Ganapathy, William L. Wight, Robert P. Morgan, Henry R. Glyde, Theodore W. Schlie, D. Woods Thomas.

## 17. Science and Technology Policy

**Scientific, Technological, and Institutional Aspects of Water Resource Policy (4 Jan., 9:00 a.m., HM):** Research, improving federal policy, urban aspects, institutional issues.

Yacov Y. Haimes, William C. Ackermann, Leo M. Eisel, Raymond Kudukis, Warren Viessman, Jr.

**Science as Evidence in Judicial and Administrative Proceedings (4 Jan., 3:00 p.m., HM):** Scientific and technical material, scientist as judge, complex scientific issues, judicial perspective.

Arthur F. Konopka, J. V. Martinez, J. Dan Nyhart, Oscar H. Paris, Paul G. Dembling, Patrick E. Higgenbotham.

**Scientific Freedom and Responsibility in the International Arena (5 Jan., 9:00 a.m., SH):** Status and prospects, U.S.S.R. and the West, human rights, responsibilities of the scientist.

Jessica Tuchman Mathews, Joel Primack, Jeremy J. Stone, Valentin Turchin, Patricia M. Derian, Bernard Feld.

**Zero-Base Planning of Federal R&D: Thought Experiments**

**(5 Jan., 9:00 a.m., HM):** The public good, science for the people, federal research support, justification for the national R&D budget.

Rustum Roy, J. Derek deSolla Price, Adlai E. Stevenson, Alvin M. Weinberg, George E. Brown, Jr., J. E. Goldman.

**Building Toward a Hurricane Disaster (6 Jan., 9:00 a.m., SH):** Hurricane Camille 1969, response to hurricane warnings, protecting ourselves, controlling hurricanes, creating a hurricane disaster.

Neil L. Frank, Wade Guice, Donald G. Friedman, T. Michael Carter, John P. Clark, Robert K. Leic, Sally Davenport, Stanley L. Rosenthal.

**Fencing In—and Fencing With—the Oceans (7 Jan., 9:00 a.m., HM):** Law of the Sea Conference, science and other freedoms, marine science, fisheries management, 200-mile zone, mining, deep-sea development.

David A. Katcher, William A. Nierenberg, Richard G. Darman, Warren S. Wooster, Donald L. McKernan, Marne Dubs.

**Nuclear Nonproliferation Policy: Technology and Institutions**

**(7 Jan., 3:00 p.m., HM):** Nuclear fuel cycle, nuclear power, nuclear weapons proliferation, evaluation.

David W. Hafemeister, Joseph S. Nye, John E. Gray, Albert Carnesale.

**State and Local Science Policy Mechanisms: Are There Markets for Science in State and Local Government? (8 Jan., 9:00 a.m., HM):** President's advisory panel, academic resources, helping state legislatures.

Phyllis Kahn, Richard A. Scribner, John Reuss, Francis Francois, Gordon Voss, Bruce Conlin, James Kellett, Robert Crawford, Diane Chapman-Willis.



EASTERN and CONTINENTAL Airlines are making it easier than ever for you to attend our Annual Meeting.

They can also plan pre or post convention vacations to a variety of exciting places.

ACT NOW!!!...the sooner the better...early January is a busy time for travelling...plus, if you make your reservations early you may be eligible for some discounted fares, including the new Super Savers!!!...inquire about EASTERN's Unique Unlimited Mileage Fare, you'll be surprised how far your travel dollars can go!!!

## Remember These Numbers

**East of the Mississippi, call 800-327-1295**


**EASTERN**

- 1 Shamrock Hilton Hotel & South Main Terminal (Airport Transportation)
- 2 Houston Marriott Motor Hotel (at the Astrodome)
- 3 Astro Village Hotel Complex: Tower & Lodge and Holiday Inn
- 4 Tidelands Motor Inn
- 5 Tides II Motor Inn
- 6 Rice University
- 7 Texas Medical Center
- 8 Astrodome
- 9 Downtown Allen Center Terminal (Airport Transportation)

\*Map is not to scale. Approximate distance from Shamrock Hilton (1) to Houston Marriott (2) is ½ mi.; to Astro Village (3), 2 mi.; to Tideland (4) and Tides II (5), ¼ mi.; to downtown Houston (9), 4 mi.





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**(D)**

• PLEASE READ CAREFULLY •

- Preconvention Program, badge, and voucher for full Program and Abstracts will be mailed to registrants in early December.
- Full Program and Abstract Volume will be held at *Advance Registrants' Desks* (Shamrock Hilton and Marriott hotels).
- **Registrations received after 15 December will be held at the AAAS Information Booth.**

**PART II:** Check ☒ categories of registration and enclose amount(s) indicated

Meeting Registration Categories	Single	Double (incl. Spouse)
AAAS Member	<input type="checkbox"/> \$25	<input type="checkbox"/> \$38
<input type="checkbox"/> Student or <input type="checkbox"/> Retired Member (Check one)	<input type="checkbox"/> \$13	<input type="checkbox"/> \$20
Non-Member	<input type="checkbox"/> \$31	<input type="checkbox"/> \$44

**Non-Members applying for membership with registration (check below):** Dues of \$31 (single) and \$43 (double) includes one subscription to *Science* (52 issues per year). Rates are domestic-regular membership. Inquire for Canadian, other foreign, student, and retired persons.

☐ \$56 Meeting registr. and single membership

☐ \$69 Double registr. and single membership

Name of Member: \_\_\_\_\_

\_\_\_\_\_

☐ \$81 Double registr. and double membership

**NOTE:** Special one-day attendance registration will be available at Registration Desks.

CONVENTION ADDRESS: \_\_\_\_\_  
(Where you can be reached) (Hotel, Street Address, and/or Phone No.)

Check days attending:      Wed      Thu      Fri      Sat      Sun      Mon  
☐      ☐      ☐      ☐      ☐      ☐

☐ Please check here if you need special services due to handicap. We will contact you prior to the meeting.

**Annual Meeting, Houston, 3–8 January 1979**

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).

### Institutional Affiliation Type

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

### Distance Traveled to Meeting

- 71 ☐ Under 51 miles  
72 ☐ 52 to 150 miles  
73 ☐ 151 to 400 miles  
74 ☐ 401 to 1000 miles  
75 ☐ 1001 to 3000 miles  
76 ☐ Over 3000 miles

