SCIENCE

3 December 1976

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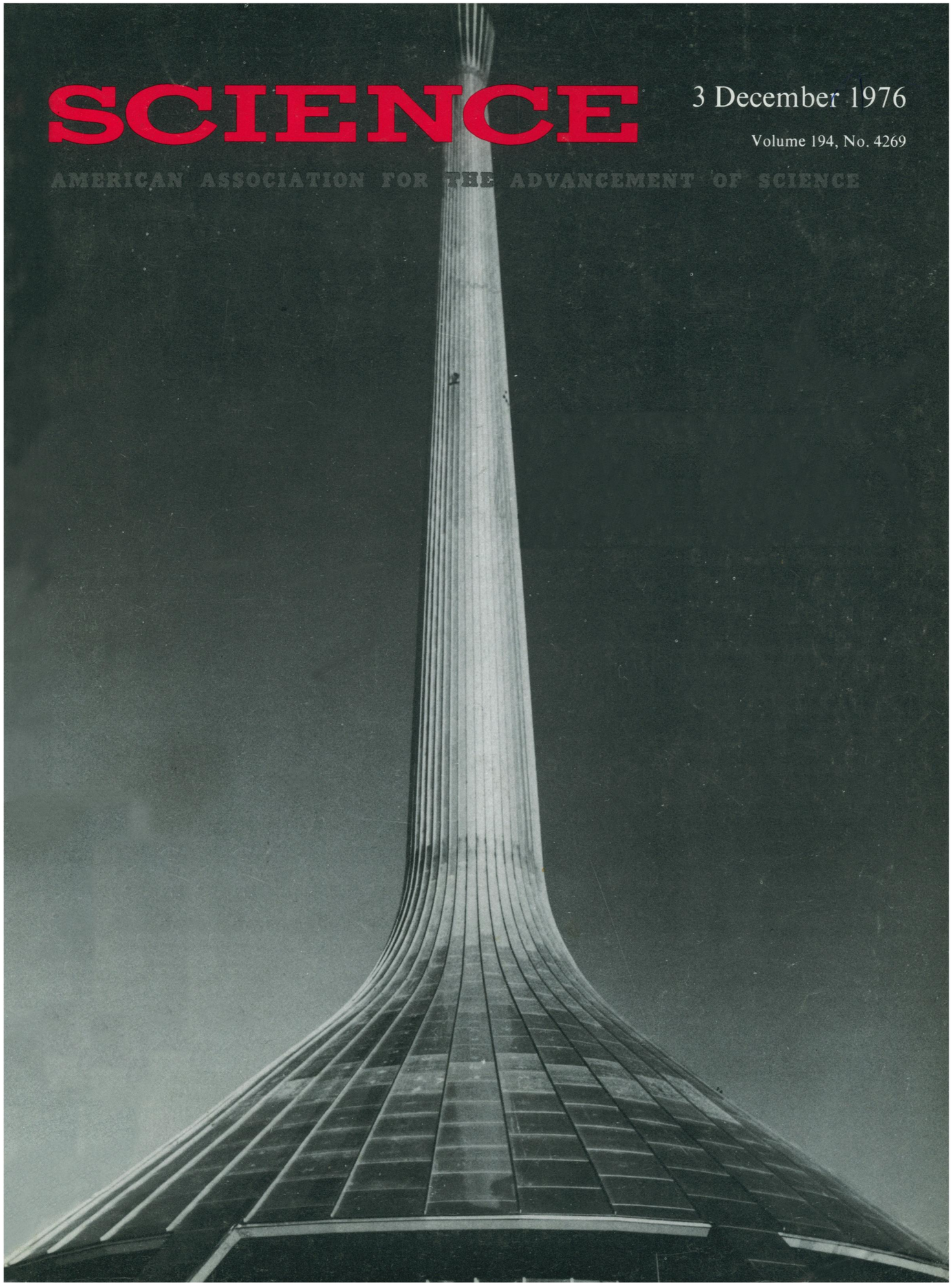
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



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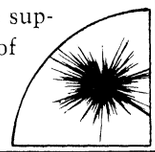

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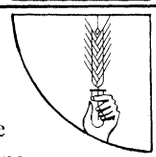

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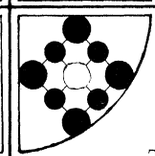

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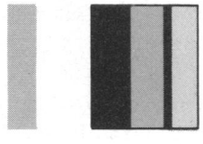

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COVER

Central heating plant, Västra Frölunda—near Gothenburg, Sweden—supplies heat to 1600 apartments in the Swedish community. Central heating plants save energy compared with individual boilers, and can often burn fuels such as trash. See page 1001. [Swedish Information Service, New York City]

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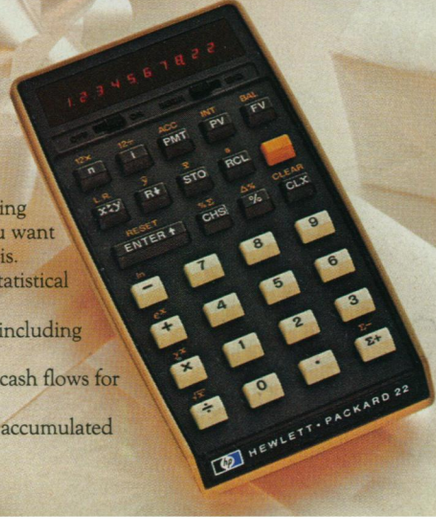

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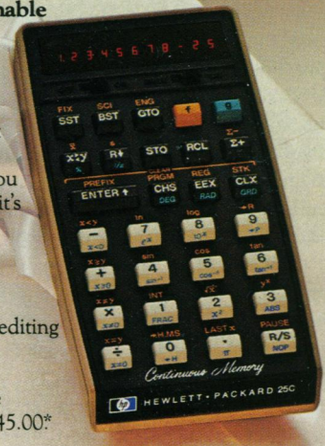

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Mr. Carter's Inheritance

A presidential election represents an opportunity for a new beginning, a time for the people to unite behind their chosen leader. It is appropriate that this should be true; the well-being of all citizens is dependent on how effectively the new leader is able to function.

The presidency carries with it power and an aura of power. When Mr. Carter has taken office, he will have both and they can serve him and the country well. As long as the President is in office, much of the power remains. However, a few missteps can leave his prestige in shambles.

Mr. Carter has much going for him. He is, by all accounts, unusually intelligent. His political party has overwhelming control of both houses of Congress. Mr. Carter has the opportunity to be effective, moving the country toward coping with many great problems. However, in making a new beginning in Washington, he will find his maneuvering room limited. In part this is his own doing, but in part he inherits liabilities incurred by the Administration during the last 8 years. Mr. Nixon left office after he created a rancorous conflict between the White House and Capitol Hill, alienated top civil servants, and made it fashionable for the media to denigrate the presidency. In his limited tenure, Mr. Ford did much to restore the office, but of political necessity and conviction he continued the practice of confrontations with Congress, though on a more civil basis. The media continued to be hostile. Their habits of 8 years are likely to persist.

During the primaries, Mr. Carter ran against Washington. But the majority of the congressmen who have made the laws are Democrats. Moreover, although a limited number of top appointees have been Republicans, the administration of the government has been planned and carried out by civil servants, the majority of whom are Democrats. If he is to avoid an alienation of Congress and the bureaucrats, Mr. Carter must communicate more constructively with these groups than did his predecessors.

Most congressmen are relaxed about what they term campaign rhetoric, so being against Washington is no big deal to them. However, they are aware of the nuances of power, of their own worth, and of their power base. As vote-getters in their respective states, most Democratic congressmen outpolled Mr. Carter. Thus politically they owe him nothing. What is more serious, during the campaign he and his staff were relatively inaccessible to some important congressmen. Mr. Carter has created potential animosities on Capitol Hill in his own party, and he has made a start toward perpetuating Capitol Hill–White House confrontations.

If these habits of 8 years continue, Congress has at its disposal sizable assets. At one time the presidency had a lopsided advantage over what was often a rubber-stamp Congress. Administrations enjoyed a monopoly on expertise in matters outside the knowledge of legislators. However, many of the veteran lawmakers are very knowledgeable in the areas of their respective committees. Moreover, they have new resources.

Following World War II, Congress took measures to improve the breadth of its staff. This movement accelerated after Mr. Nixon took office. Today Congress has ready access to experts in a wide variety of fields. Each congressman has his own staff, and each committee has a staff. Beyond that, there are experts at the Library of Congress and the General Accounting Office. In matters involving science and technology (and that includes practically everything), Congress has the backup of the Office of Technology Assessment headed by Emilio Q. Daddario. Mr. Daddario has assembled a good staff which he supplements by contracted studies and by advisory committees. He now taps for the benefit of Congress a group as powerful intellectually as that of the Kennedy regime.

During the next 4 years Congress will have an important role in shaping the conduct of government. If Mr. Carter is not to be out-brained, he will need to assemble a first-class team of advisers, and he will need to have the loyal support of the top civil servants.—PHILIP H. ABELSON

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Annual Meeting
Denver
20-25 February 1977

Meeting Program—Part I

For further details, see the Preliminary Program, *Science*, 5 November, pages 599 to 608, and Tours and Cultural Events, *Science*, 19 November, pages 827 and 828.
HOTEL CODES: Denver Hilton . . . DH; Holiday Inn . . . HI; Cosmopolitan . . . CO.

For the 143rd time in its 128-year history, the AAAS will meet nationally to discuss the latest developments in all branches of science and technology, the manner in which these developments interrelate, and their impact on society. This is the fourth such Meeting in Denver, the gateway to the Rockies and the American West, and it is fitting that many of the topics to be considered have particular significance for this region of the country: the problems in resource development—particularly for energy, its implications for land use and the environment, and the further implications for social goals and human values, to mention just one area of concern.

Listed below are the symposia which make up the first half of the scientific program, 55 in all, grouped by category into general interest, physical and mathematical sciences, energy, resource policy, biological science, agriculture and ecology, environment, and arid lands (a particularly important southwestern problem). (The remaining 66 symposia will be listed in the 17 December issue of *Science*.) Look it over; we are sure that you will find many things that you must know about and want to discuss with us.

Featured, along with the scientific program, are many tours and events which allow you to sample the scientific and cultural wealth of the Greater Denver area (see the listing in *Science*, 19 November, pages 827 and 828), in particular, its magnificent opportunities for winter recreation, which you might wish to sample just after the Meeting. Come to Denver; it is a wonderful opportunity for you and your family to expand all of your horizons; join us at *your* Annual Meeting.

—ARTHUR HERSCHMAN

Bronc Buster statue near the State Capitol. [Denver Convention and Visitors Bureau]

1. General Interest

Case Studies in Scientific Freedom and Responsibility (21 Feb., DH): Critical science, changing perceptions, public participation, Asilomar, education, legal constraints, legislative issues, scientific societies.

William A. Blanpied, Rosemary A. Chalk, Jerome R. Ravetz, Charles Weiner, F. James Rutherford, H. Bentley Glass, Harold P. Green, Charles A. Mosher, Frank Von Hippel.

Technical and Legal Aspects of Weather Modification (22 Feb., DH): Uncertainties, alternatives and prospects, development of the technology, interaction of scientists and lawyers.

Ray J. Davis, Lewis O. Grant, William A. Thomas, Larry Davis, Wayne Decker, Talcott W. Edminster, Ray D. Booker, Frank E. Evans, Conrad E. Keys, Jerome W. Kirby, Carlos Lucero, Stanley A. Changnon, Jr., Harris D. Sherman, G. Brant Foote, James Eastgate, Archie M. Kahan, Joseph D. Howe, Emilio Q. Daddario.

The Viking Missions to Mars (22 and 23 Feb., DH): Mission profile, geology, surface material, search for motion, weather stations, carbon assimilation, gas exchange, labeled release, organic compounds, inorganic chemistry, physical and magnetic properties, cratering, volcanic processes, fluvial activity, atmospheric phenomena, variable features, polar deposits, martian atmosphere, water, temperatures, Marsquakes.

Carl Sagan, Gerald A. Soffen, James S. Martin, Jr., Thomas A. Mutch, Elliot C. Morris, Alan B. Binder, Seymour L. Hess, Norman Horowitz, Vance Oyama, Gilbert Levin, Klaus Biemann, Priestley Toulmin, III, Richard Shorthill, Robert B. Hargraves, Michael Carr, Ronald Greeley, Harold Masursky, Geoffrey Briggs, Joseph Veverka, James Cutts, Tobias Owen, Michael McElroy, Crofton B. Farmer, Hugh H. Kieffer, Don L. Anderson.

Science: The Key to Our Political Future (22 Feb., DH): Crowded world, world food, raw materials, human habitation and urbanization, fragile environment.

Ian MacGregor, George W. Ball, Charles J. Hitch, Lord Zuckerman.

The Frontiers of the Natural Sciences (24 Feb., DH): Chemistry, geology, fundamental forces in nature, biological heritage, combinatorial mathematics, astronomy.

Rolf M. Sinclair, John Margrave, Peter J. Wyllie, C. N. Yang, James D. Ebert, Ronald L. Graham, Bart J. Bok.

The Right to Die (25 Feb., DH): Death attitudes, function of medicine, definition of death, conflict and responsibility, judicial dilemma, mercy killing, right to live.

Ernan McMullin, Harold A. Widdison, E. Mansell Pattison, Eric Cassell, H. Tristram Engelhardt, Thomas Schelling, Leslie Rothenberg, Kevin O'Rourke, Alasdair MacIntyre, William F. May, Philippa Foot.

2. Physical and Mathematical Sciences

The Promise of High Energy Physics (21 Feb., DH): Building blocks of matter, accelerators, the infinitely small, inside of matter.

Victor F. Weisskopf, Murray Gell-Mann, Robert R. Wilson, Leon M. Lederman.

The New Solar Physics (21 Feb., DH): Seismic sounding, solar neutrinos, streams, sectors, solar magnetism, changing sun.

John A. Eddy, John W. Firor, Henry A. Hill, Raymond J. Davis, Arthur J. Hundhausen.

Science for the Naked Eye: Or the Physics of Everyday Experience, IV (22 Feb., DH): Skiing, biological clocks, lasers and light, karate, meteorology, the violin.

Rolf M. Sinclair, John Howe, Arthur T. Winfree, Arthur L. Schawlow, Michael S. Feld, Ron McNair, David Feld, Jonathan Feld, H. L. Sawatzky, William F. Fry.

Action and Reaction: Science and Mathematics (23 Feb., DH): Computer science, catastrophe theory, duality, infinity.

Daniel J. Sterling, Ottis W. Rechard, Lynn A. Steen, Walter Wyss, Stanislaw M. Ulam.

Quality Mathematical Software (23 Feb., DH): Ordinary differential equations, elliptic partial differential equations, matrix computations.

Cleve B. Moler, Larry F. Shampine, Ronald A. Sweet.

Statistical Problems in the Remote Sensing of Meteorological Parameters (24 Feb., DH): Statistical regularization, microwave radiometric data, meteorological sounding, the cloud problem.

David S. Crosby, Otto N. Strand, Ed R. Westwater, Michael P. Weinreb.

Synchrotron Radiation—A Bright Light for the Biological and Physical Sciences (24 Feb., DH): Muscle structure and dynamics, extended x-ray absorption, metal ion sites in proteins, ultraviolet spectroscopy, x-ray lithography and microscopy.

R. E. Watson, M. L. Perlman, J. B. Hastings, C. Cohen, R. G. Shulman, T. Gustafson, E. Spiller.

Laser Chemistry (25 Feb., DH): Photochemistry, magnetic resonance studies, free radicals, negative ions, picosecond spectroscopy, anti-Stokes Raman spectroscopy, supersonic molecular beams, isotope separation.

W. Carl Lineberger, C. Bradley Moore, Kenneth M. Evenson, John I. Brauman, Kenneth B. Eisenthal, Albert B. Harvey, Donald H. Levy, Richard Solarz, John Birely.

3. Energy

Wind-Energy Conversion Systems [WECS] (21 Feb., DH): Overview, aerodynamics, Darrieus vertical axis, horizontal axis, small wind energy systems.

Frances J. Laner, Robert N. Meroney, Louis V. Divone, Robert E. Wilson, Richard H. Braasch, Ugo A. Coty, Donald A. Wiederecht.

Geophysical Exploration for Energy and Mineral Reserves (21 Feb., DH): Hydrocarbons, mineral deposits, geothermal reserves.

Franklyn K. Levin, Milton B. Dobrin, John S. Sumner, George V. Keller.

Solar Energy in the 20th Century (22 Feb., DH): Heating, cooling, industrial applications, homes and commercial buildings, remote applications, agricultural applications, solar electric power, central collector systems, distributed systems, orbital systems, power relay satellite, utilities.

George W. Morgenthaler, Frances J. Laner, Glen E. Brandvold, Joseph H. Zettel, George Löf, Morton B. Prince, William Cherry, Gene C. Shove, Henry Marvin, Floyd A. Blake, Cliff Salvage, Aden Meinel, Robert F. Freitag, Krafft A. Ehricke, Chauncey Starr, Mel Savage, Sam Primack, John Bayless.

The Geologists' Role in the Nuclear Power Cycle (22 Feb., DH): Mineral fuels, uranium mining, siting nuclear facilities, radioactive waste management, radioactive waste disposal.

Hugh R. Wynne-Edwards, Bruce B. Hanshaw, Earl F. Cook, Ron G. Dakars, James F. Devine, G. Lewis Meyer, Ernest E. Angino.

Renewable Energy Resources and Rural Life in the Developing World (23 Feb., DH): Energy needs, solar thermal technologies, photovoltaic technology, wind energy conversion, hydropower technology, rural electrification, wood waste, methane, alternative energy technologies, economic overview.

Norman L. Brown, William L. Hughes, Roger R. Revelle, George O. G. Löf, Morton B. Prince, S. K. Tewari, Joseph J. Ermenc, Virginia Walbot, Ibrahim Sakr, J. W. Powell, Raymond C. Loehr, José Miccolis, James A. Crutchfield, Jr.

Nuclear Energy Politics and International Consequences (24 Feb., DH): U.S. perspective, West German position, French perspective, international issues, concerns of Great Britain, Australian position, nongovernmental appraisal.

Valerie Ann Dalski, Nelson F. Sievering, Jr., Klaus W. Wiendieck, Michel A. Chauvin, Dwight Porter, Alan Smith, David G. Walker, John E. Gray.

Nuclear Power and Nuclear Weapons (25 Feb., DH): Strategies for control, agents of proliferation, avoiding proliferation, nuclear export.

Rolf M. Sinclair, Theodore B. Taylor, Herbert F. York, Richard W. Roberts, Thomas D. Davies.

The Fusion Program (25 Feb., DH): Some perspectives, history and physics of fusion, ERDA Program, user's perspective.

Rolf M. Sinclair, Robert L. Hirsch, Edward A. Frieman, Edwin E. Kintner, Clinton P. Ashworth.

4. Resource Policy

Policy Planning for Recreational Land Use in the Rockies (21 Feb., DH): Making land-use decisions, land-use tradeoffs, recreation pricing, public administration, spiritual dimension, consumerism.

Theodore W. Schlie, Russell W. Fitch, David Freeman, Randy B. Boyd, R. Garrett Mitchell, Terrance Minger, Rev. Donald Simonton, Janelle Dykes.

Information Credibility and the Mineral Policy Process (21 Feb., DH): Congressional view, limits of the law, private in-

dustry's role, the reporter's problem, credibility of information.

John G. Welles, Floyd K. Haskell, Philip J. Mause, Simon D. Strauss, Allen L. Hammond, Eugene N. Cameron.

Energy Conservation—A National Quid Pro Quo (21 Feb., DH): National perspective, conservation legislation, energy requirements, food supply.

John R. Craig, Donald E. Cunningham, Donald Craven, John Steinhart, A. Berry Crawford.

Energy Development in the Rocky Mountain West (22 Feb., DH): Geological perspective, political perspective, environmental perspective, Kaiparowits decision, shale oil development, environmental impact, coal mining, coal gasification.

Jerrold H. Krenz, Don L. Boyer, Robert S. Houston, William R. Keefer, Harris D. Sherman, David Freudenthal, John W. Firor, H. Anthony Ruckel, John W. Hand, Katherine Fletcher, C. E. Smith, Jr., Andrew Decorra.

The Impact of Energy Development on Indian Lands (23 Feb., DH): Tribal lands, legal status, water rights, tribal control, economic development.

Tillie Walker, Duane T. Birdbear, Tim Vollmann, John Echohawk, Patrick Stands Over Bull, Peter MacDonald.

Energy from the Rockies: Fueling the Nation or Fouling the States? (23 Feb., CO): Rocky Mountain energy, national needs, environment and energy, alternate energy sources, states' rights.

Thomas L. Wright, John W. Rold, William L. Fisher, Michael McCloskey, Donald A. Henriksen, Richard T. Meyer.

Applied Policy Research: A Review of Energy Resource Development in the Western United States (24 Feb., DH): Western energy development, Southwest regions, technology assessment, status of research.

Irvin L. White, Philip M. Burgess, Joyce M. Kelley, Alan Kneese, Lee Brown, R. Leon Leonard, Michael A. Chartock.

5. Biological Science

Herbivore–Secondary Plant Metabolite Interactions (21 Feb., DH): Feeding patterns, plant chemical defenses, cyanogenesis, canavanine-insect interactions, seeds, ecology of the Cruciferae.

Gerald A. Rosenthal, Daniel H. Janzen, Rex G. Cates, Eric E. Conn, Paul P. Feeny.

Physiological Reactions in Plants Initiated by Environmental Stress (21 Feb., DH): Membrane form and function, plant hormone systems, metabolic dysfunction, plant function.

M. N. Christiansen, James M. Lyons, R. Hilton Biggs, Charles Y. Sullivan, John C. Brown.

Polar Research: To the Present, and the Future (22 Feb., DH): Antarctic exploration, Gondwanaland, polar glaciology, global climate change, polar oceans, productivity, marine mammals, marine ectotherms, adaptations, international perspectives.

Mary A. McWhinnie, Duwayne M. Anderson, Laurence M. Gould, George A. Llano, Campbell Craddock, Richard L. Cameron, George H. Denton, Joseph O. Fletcher, John J. Kelley, Theodore D. Foster, Sayed Z. El-Sayed, Donald B. Siniff, Ian G. Stirling, L. Lee Eberhardt, Arthur L. DeVries, Bruce C. Parker, Robert H. Rutford.

Design of Cell Organelles (23 Feb., DH): Ribosomal architecture, Golgi apparatus, mitochondrial biogenesis, cilia.

Ellen Roter Dirksen, James A. Lake, Becca Fleischer, Ronald A. Butow, Peter Satir.

Science Information: International Communication for Research in Biomedicine (23 Feb., DH): United Kingdom, Western Europe, Canada, Scandinavia, United States, the World System.

Arthur W. Elias, Brian Perry, Rolf Fritz, George Ember, Goran Falkenberg, Mary Corning, Lee Burchinal.

Some Mathematical Questions in Biology (24 and 25 Feb., DH): Wave patterns, compartmentalization, complex systems, nonreciprocating circuits, occluding contour, catastrophe and chaos.

Simon A. Levin, Stuart Kauffman, Ronald Shymko, Kenneth Trabert, Sydney Brenner, Jack Cowan, David Marr, George Oster, J. F. Giles Auchmuty, John Guckenheimer.

When Biologists and Mathematicians Work Together: A New Theoretical Biology (25 Feb., DH): Multi-gene families, pattern regulation, community structure.

Charles F. Walter, Daniel L. Solomon, Myron Hood, Lee Hood, Peter Bryant, Stuart Kauffman, Simon A. Levin, Robert Paine.

6. Agriculture and Ecology

Biology and Agriculture in the People's Republic of China (21 Feb., DH): Agricultural ecosystems, biological control of insects, plant disease control.

Arthur Kelman, Jack R. Harlan, Carl B. Huffaker, R. James Cook.

World Food, Pest Losses, and the Environment (22 Feb., DH): Insect pest losses, plant pathogens, weeds, animal pests, social aspects, environmental impact, post-harvest food losses.

David Pimentel, Ray F. Smith, J. Lawrence Apple, W. Furtick, Roger O. Drummond, Ruff Bram, Nels Konnerup, Hans Guggenheim, Max Milner, John R. Pederson.

Coyotes, Wildlife, and Meat Production (23 Feb., DH): Coyote populations, nongame wildlife, wild game, coyote predation, predator damage control, meat production.

Clair E. Terrill, Frederick F. Knowlton, Frederic H. Wagner, Samuel L. Beasom, J. Maurice Shelton, John R. Wood, Carl S. Menzies.

The EQ Index for Wildlife: Blueprint for Survival (23 Feb., DH): Critical water problems, soil resources, forestry, living space, wildlife management.

Donald J. Zinn, Allen V. Kneese, Chester E. Evans, Wayne O. Willis, William E. Towell, Rice Odell, Lee M. Talbot.

Renewable Resource Management for Agriculture and Forestry (24 Feb., DH): Food and fiber, land productivity, assessment of technology, energy requirements, institutional restrictions, economic considerations.

James S. Bethel, Martin A. Massengale, Emory Castle, Wynne Thorne, Sylvan Wittwer, William Splinter, George Staebler, Eric Ellwood, John Zivnuska, Del Gardner.

High Altitude Geoecology (25 Feb., DH): Physical environment, monitoring, ice and snow, physiology, biology, human occupation.

Patrick J. Webber, Jack D. Ives, Roger G. Barry, Daniel H. Knepper, Malcolm Mellor, Harold W. Steinhoff, Robert F. Grover, W. Dwight Billings, Brooke Thomas.

7. Environment

How Well Are We Equipped to Cope with Environmental Problems? (21 Feb., HI): Environmental policies, adequacy of science and information, industrial perspective, systems ecology, epidemiology, urban planning, legal profession, economics.

William J. Snodgrass, Lynton K. Caldwell, Toufiq A. Siddiqi, Richard Carpenter, Wilson Talley, William J. Coppoc, Don Kash, Gilbert White, Howard T. Odum, Robert N. Hoover, Joachim Tourbier, Charles Conklin, William Schulze.

Benefit-Cost Analysis and Environmental Decisions: Viable Decision Tool or Economists' Pipe Dream? (22 Feb., HI): Alaska pipeline, river development, Tocks Island Dam, pollution, policy tool.

Michael D. Yokell, Charles Cicchetti, Richard Norgaard, Hal Feiveson, Lester Silverman, Alan Carlin.

Nature and Government (23 Feb., HI): Nature and urban concerns, energy policy conflicts, the Front Range, New Jersey Pine Barrens.

Millard C. Davis, Richard L. James, Ruth W. Melvin, Helen Ross Russell, Joan E. Martin, Martin Seybold.

The Measurement of Air Pollution (23 Feb., DH): Ozone, remote areas, Clean Air Act, lung health study, SO_2, particulates.

William S. Cleveland, Thomas E. Graedel, James P. Lodge, Stanley M. Blacker, Waynne Ott, Benjamin G. Ferris, Jr., Yvonne M. Bishop, John D. Spengler.

Weather and Geochemistry of the Urban Environment: Processes and Impacts—So What! (23 Feb., HI): Severe weather anomalies, inadvertent weather alteration, pollutant measurements in METROMEX, agricultural production, respiratory health study, urban environment.

Richard G. Semonin, Floyd A. Huff, August H. Auer, Jeremy M. Hales, Stanley A. Changnon, Jr., John D. Spengler, Stephen K. Hall, Benjamin G. Ferris, Jr., Harry A. Tourtelot.

Societal and Technical Aspects of Denver Area Air Pollution (24 Feb., HI): Atmospheric chemistry, atmospheric physics, health effects, biological effects, control strategies, national policy.

Edwin F. Danielsen, C. S. Kiang, Francis P. Bretherton, Paul J. Crutzen, John C. Cobb, J. B. Mudd, Myron L. Corrin, Gerard V. Frank, David A. Wagoner, Gary W. Hart, Timothy E. Wirth, Frank Hersman, Kenneth Boulding.

Regional Air Pollution: Truth and Consequences (25 Feb., HI): Atmospheric chemistry and meteorology, health effects, chemistry of precipitation, ecophysiological processes.

William W. Kellogg, Jean French, Ellis B. Cowling, David Tingey, Lawrence C. Raniere.

Environmental Mediation Case Studies (25 Feb., HI): New England, coastal zone of New Jersey, Rocky Mountain region.

Laura M. Lake, Peter B. Clark, Donald B. Straus, Paul Wehr, Christopher Wright, Dorothy Nelkin, Helen Ingram.

8. Arid Lands

American Droughts (21 Feb., DH): History and intensity, agricultural productivity, impacts, strategies, technological options, forecasting.

Norman J. Rosenberg, L. Dean Bark, Richard E. Felch, James E. Newman, Robert D. Miewald, J. Eugene Haas, Stephen H. Schneider.

Scientific Activities Relating to United Nations Conferences: The U.N. Conference on Desertification, September 1977 (21 Feb., DH): Purpose and organization, governmental input, activity and expectations.

Harold Dregne, Priscilla Reining, Mostaffa Tolba, Dean F. Peterson, M. G. C. McDonald Dow, Bill L. Long, Walter Orr Roberts, Irene Tinker, Robert Stein, Robert Kates.

Desert Dust: Origin, Characteristics, and Effect on Man (22 and 23 Feb., DH): Nature, rates of deposition, eolian quartz dust, morphology, duststorms on Mars, oxygen isotopic ratios, dust carried great distances, Asian desert dust, oceanic sediments, climatology and mineralogy, dust transport, effect on weather, effect of erosion and cropping, highway transportation.

Troy L. Péwé, Dan H. Yaalon, Eliezer Ganor, Elizabeth A. Péwé, Richard H. Péwé, André Journaux, David H. Krinsley, Ronald G. Draftz, Jack L. Durham, Ronald Greeley, James Iversen, Bruce White, James Pollack, M. L. Jackson, R. N. Clayton, Dale A. Gillette, Kenneth A. Rahn, Randolph D. Borys, Glenn E. Shaw, Joseph M. Prospero, V. Kolla, James R. Brock, Edwin F. Danielsen, Sherwood Idso, Donald W. Fryrear, David R. Oliva rez.

The Reclamation of Disturbed Arid Lands (23 and 24 Feb., DH): Surface mine reclamation, woody plants on mine spoils, native shrubs and oil shale, restoration of productivity, coal reclamation research, aquatic impacts, geochemical aspects, economics, socioeconomic impacts, semiarid mined lands, revegetation, shrub growth, humate deposits, hydrologic design.

Robert A. Wright, Grant Davis, Ardell J. Bjugstad, C. M. McKell, J. F. Power, Fred M. Sandoval, Ronald E. Ries, J. R. Goodin, Ralph P. Carter, Edward H. Dettmann, R. D. Olsen, Donald L. Streib, James R. LaFevers, L. John Hoover, Erik J. Stenehjem, M. L. Riedesel, Richard L. Hodder, A. Perry Plummer, Stephen B. Monsen, Earl F. Aldon, James R. Gosz, Larry L. Barton, Loren D. Potter, Roger E. Smith, David A. Woolhiser.

Social and Technological Management in Dry Lands: Past and Present, Indigenous and Imposed (25 Feb., DH): Cross-cultural survey, indigenous irrigation agriculture, changes in land use, mode of production, ecosystem, desertification, surface water, irrigated agriculture, ethnobotany.

Nancie L. Gonzalez, Anthony Leeds, Theodore E. Downing, Michael E. Moseley, Richard P. Schaedel, Barbara Price, William H. Bedoian, Federico S. Vidal, Susan H. Lees, Richard S. Felger, Priscilla Reining, Stan Ruttenberg, John W. Bennett.

Reservations

Hotel Rates*

The American Association for the Advancement of Science will hold its 1977 Annual Meeting in Denver, 20–25 February. AAAS headquarters hotel will be the Denver Hilton; the meeting of the AAAS Southwestern and Rocky Mountain Division will be at the Executive Tower Inn, with registration and information desks located at both hotels. Sessions will also be held at the Cosmopolitan and the Holiday Inn—Downtown. The following hotels will be used for housing:

Hotel	Single	Double	Twin	Suites**	Parking
DENVER HILTON *(Headquarters)* 1550 Court Place *(No. of rooms held: 700)*	$22*** 25 29	$32 35 39	$32 35 39	$104 and up	$3 per 24 hours
EXECUTIVE TOWER INN *(SWARM)* 1405 Curtis Street *(No. of rooms held: 175)*	$24	$30	$30	$64 and up	Free 24-hour parking for registered guests
COSMOPOLITAN 1780 Broadway *(No. of rooms held: 200)*	$18	$26	$26	$125 and up	$3 (enclosed) and $2.50 (out-door) per 24 hrs. for registered guests
HOLIDAY INN—DOWNTOWN 15th Street & Glenarm Place *(No. of rooms held: 250)*	$21	$26	$26	$45 and up	Free for registered guests
BROWN PALACE 321 Seventeenth Street *(No. of rooms held: 50)*	$34	$41	$41	$65 and up	$2.50 per 24 hours

*Per day; add 7.5% for State and City Room Tax. Charges for additional persons per room vary between $5 and $10, depending on hotel; charges for rollaway beds and cots vary between $2 and $10, depending on hotel. Children under age 12 accommodated free in same room with parents at Executive Tower Inn, Holiday Inn, and Brown Palace; age limit higher at Hilton and Cosmopolitan.

**Lowest available rate for one-bedroom/parlor suites; rates for larger suites available upon request.

***One hundred "mini singles" are available at the $22 rate.

NOTE: If room rate specified is not available, the next available higher rate will be assigned. Confirmation will come to you directly from the hotel. You should notify the hotel of any changes in your reservation. Assignment is delayed if any information is omitted.

HOTEL RESERVATIONS FORM

Please type or print

Reservations received after 4 February cannot be assured.
The Housing Bureau will not accept any reservations by telephone.

CHOICE OF HOTEL: First_____ Second_____

ROOM: ☐ Single ☐ Double ☐ Twin **SUITE**: ☐ 1 Bedroom ☐ 2 Bedrooms Preferred Rate $_____

Please indicate any special housing needs due to a handicap:

_____

ARRIVAL: Date_____; _____a.m. _____p.m.

DEPARTURE: 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.

NAMES AND ADDRESSES OF ALL OCCUPANTS OF ROOM

Name _____ Name _____

Address _____ Address _____

City _____ State _____ Zip _____ City _____ State _____ Zip _____

Name _____ Name _____

Address _____ Address _____

City _____ State _____ Zip _____ City _____ State _____ Zip _____

Hotel, confirm reservation to: _____

Mail to: AAAS Housing Bureau
225 West Colfax Avenue, Denver, Colo. 80202