Building Knowledge and Understanding: Enduring Assets of Society

Annual Meeting
Washington
3-8 January 1982

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1. General Interest

Space science and technology . . . Frontiers of social sciences and of natural sciences . . . Science as adventure . . . Human learning.

2. Physical Sciences

Laboratory safety . . . Chemically solvable problems . . . Elementary particles and cosmology . . . Solar flares . . . Quasars . . . Physics and chemistry of everyday experience.

3. Earth and Planetary Sciences

Weather of other planets . . . Stratospheric modification . . . Western energy development . . . Drought in U.S. . . . Planet Earth . . . Nonconventional imaging . . . Minerals . . . Appalachians.

4. Engineering and Technology

Computer-based sciences . . . Software explosion . . . Manufacturing . . . Space science and policy, and manufacturing . . . Ceramics . . . Optical communication.

5. Energy

Nuclear power and the public . . . More efficient energy use . . . Oilseeds and biomass . . . Fusion and nonfossil sources . . . Behavior and conservation . . . National policies . . . Traditional fuels in Asia and Africa.

6. Biological Sciences

Biological magnetic fields . . . Deep sea hydrothermal vents . . . Ecological research . . . Mutualism . . . Biocommunication . . . Connective tissues . . . Marine products . . . Adrenal chromaffin vesicle.

7. Cell Biology and Genetics

Human genetic manipulation . . . Mitosis and meiosis . . . Recombinant DNA controversy . . . Commercial genetic engineering . . . Human genome . . . Biology of the lens . . . Protein folding . . . Genetic engineering and agriculture . . . Plant biotechnology.

8. Evolution

Major evolutionary change . . . Cretaceous extinction . . . Biology of sex . . . Brain and behavior . . . Aggression and cooperation . . . Darwinism . . . Evolution of diet . . . The knowledge process.

9. Environment

Global 2000 Report . . . Global resources . . . Is life getting better? . . . Toxic substance control and toxicology . . . Air pollutants . . . Groundwater pollution . . . Threats to ecosystem . . . Assaults on nervous system . . . Environmetrics.

10. Food and Agriculture

Endangered species . . . Water use and land use in agriculture . . . Food producers and consumers . . . Political ecology of food . . . Plants and environmental stress.

11. Medical Sciences

Substitute organs . . . Failure of organ grafts . . . Dental caries . . . Sickle-cell disease . . . Gamete surfaces . . . Cardiovascular disease . . . Communication with patients . . . Human research and regulation . . . Torture and medical ethics.

12. Biomedical Technology

Risk and radiation diagnosis . . . Speech prostheses . . . NMR in biology and medicine . . . Mathematics in biology . . . Medical decision-making . . . High technology in medicine.

13. Behavioral Science

Brain sciences and education . . . Early experience . . . Cerebral laterality . . . Mathematical performance by males and females . . . Alcohol use . . . Hypnosis and memory . . . Pain in animals and man . . . Pain control in terminally ill.

14. Anthropology and Development

Child and international development . . . Appropriate technology . . . Ecosystem in anthropology . . . East Africa . . . People at low population densities . . . Conflict, resolution, and revolution . . . Spiritual and biomedical healing.

15. Sociology and Political Science

Aging . . . Federal statistics . . . Demography and labor . . . Voting systems . . . Ethology and politics . . . Organizational evolution . . . Changing family patterns . . . Crime control policy . . . Social power and dominance in women.

16. Economics, Industry, and Regulations

If Japan can . . . Consequences of Clean Air Act . . . Changing regulatory climate and regulatory reform . . . Impact on drug development . . . Risk analysis and regulation . . . Modeling risk assessment . . . Economics and ecology . . . Forecasting uncertainty . . . Industrial policy.

17. History and Philosophy of Science

Science and belief . . . Science and humanities, and art and archeology . . . Decision-making . . . Subjective science . . . Wegener's moving continents . . . Laboratories of Bell . . . Systems methodology.

18. Science Education and Understanding

Mathematics education . . . Saving human resources . . . Education for minorities . . . Science and culture . . . Science and technology centers . . . Scientific literacy internationally . . . Status and future of science education . . . Engineering manpower and education . . . Science communication.

19. Science and Technology Policy

Supporting scientific research . . . Politics of science . . . Who controls scientific data? . . . Peaceful change . . . International programs . . . Policy outlook . . . Career public service . . . Arctic science policy.

20. Arms Control and Security

Health effects of nuclear industry and weapons . . . Chemical and biological warfare . . . Soviet policies and U.S. response . . . Future of ABMs . . . Military capability . . . Scientific freedom and national security . . . Scientists and the arms race . . . Resource availability, security, and national interest.

For further details, see the 18 September issue of *Science*.