

Eighth Washington Meeting

Preliminary announcement of programs for the 133rd annual meeting, 26–31 December 1966, and call for papers by AAAS Sections

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In the nearly 118 years of its existence, the American Association for the Advancement of Science has followed the original intentions of its founders and has staged the annual national meeting in a wide variety of cities in the United States and Canada. This year's 133rd meeting, 26–31 December, will be the eighth annual meeting to be held in the capital of the nation. (The number 133rd does not correspond with the age of the AAAS; there were no meetings in 1852 because of cholera or in the war years 1861–65 and 1942–43. These lapses were more than offset by extra, summer meetings, principally within the period 1931–1941.) In no city has the Association met more often, and in only two other cities—New York and Philadelphia, where it was founded—has the AAAS met as many times. This will be the most convenient of all Washington meetings.

At the most recent meeting in Washington (1958) it was possible to hold about 70 percent of the sessions in two large, adjacent hotels—the Sheraton-Park and the Shoreham—but the balance had to be widely scattered throughout the city. This year the Sheraton-Park, with new facilities, and the Shoreham again will house most of the meeting, but the remaining sessions can be accommodated in the not-too-distant new Washington Hilton.

The Eighth Washington Meeting will be memorable in a number of respects, as will be apparent from the detailed synopsis to follow. The city itself is known throughout the world for its research centers, museums, and its zoo.

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General Chairman

Happily for a meeting in a metropolis that is headquarters for a great nation, the AAAS is most fortunate to have for its General Chairman John W. Gardner, Secretary of the Department of Health, Education, and Welfare and a recent member of the Association's Board of Directors. Dr. Gardner first joined the AAAS in 1940.

Scope of the Meeting

Those persons who have attended recent AAAS meetings are well aware that no other scientific meeting presents such a variety of important and attractive symposia in all major fields of science, or affords such opportunities for interdisciplinary programs and special events of general interest. There has been a steady growth in the variety of the sessions and a corresponding increase in the attendance—a reflection of the ever-increasing attractiveness of the programs.

The emphasis at the meeting is on symposia, even among those societies that, necessarily, must have sessions for short papers that report current research. Many of the symposia are planned to be of particular assistance to college teachers. Some of the many symposia, or their constituent papers, are eventually published—as AAAS symposium volumes, as articles in *Science*, or as articles in specialized journals—but not all are published and, in any event, there is a time lapse. Moreover, only by attending can one meet the authors face to face and discuss points of mutual interest.

The programs of five AAAS Committees and of the 20 AAAS sec-

tions will cover the principal fields of science and interdisciplinary areas but, in addition, more than 50 organizations are arranging programs. Included are 22 national meetings—notably those of the American Society of Zoologists, Herpetologists' League, and Society of Systematic Zoology; the American Society of Naturalists; Animal Behavior Society, Beta Beta Beta Biological Society, Ecological Society of America, and the Society for the Study of Evolution; the History of Science Society, Society for the History of Technology, and the Society for General Systems Research; six science teaching societies; and the 67th annual convention of the Society of the Sigma Xi.

Some 30 societies will sponsor special or regional meetings—the American Mathematical Society, Association for Computing Machinery; Association of Southeastern Biologists; American Meteorological Society, American Astronautical Society; Academy of Psychoanalysis, American Psychiatric Association; American Speech and Hearing Association and some six societies in the social and economic sciences—to mention some of these.

Theme of the Meeting

For the first time since the centennial meeting of 1948, which also was in Washington, this year's AAAS meeting will have a general theme—"How Man Has Changed His Planet." A number of the special and general sessions, as well as the sectional programs and the AAAS Interdisciplinary Symposia, will be concerned with various aspects of this vitally significant subject. To cite but two examples, in one of the "Moving Frontiers of Science" lectures Lynn White Jr. (University of California, Los Angeles) will give an address on "The Historical Roots of Our Ecologic Crisis." The AAAS Section on Agriculture (O) has planned a seven-session symposium, Agricultural Aspects of Environmental Pollution; one session of this, jointly sponsored by the Section on Engineering (M), will be concerned with the latest techniques of measuring and controlling air and water pollution.

For the most part, those who attend will select the programs that most appeal to them as specialists, but nearly all will also enjoy some of the AAAS special and general sessions.

These programs and those of the sections and participating societies will be found in the detailed sections that follow.

Special Sessions

The Committee on AAAS Meetings, which is responsible for the general pattern of the meeting and for all general sessions, has outlined its usual attractive series of special sessions and general events. In chronological order, these are as follows:

26 December, evening. Part I, "Moving Frontiers of Science." This program, which consists of lectures by authorities in various fields, is planned to be of general interest to all who attend. The speakers will present recent developments in a particular science in terms intelligible to scientists in other disciplines. All sections and most of the participating societies have left these lecture periods open in preparing their schedules. The first paper on this first evening of the meeting, as already mentioned, will be given by Lynn White, Jr.

27 December, afternoon. An invited address by Patrick M. S. Blackett, Nobel Laureate in Physics, 1948, and currently president, Royal Society, London, England, will be given under the auspices of the Washington Academy of Science.

28 December, morning. The four AAAS Interdisciplinary Symposia, selected by the Committee on Meetings, will be presented concurrently. The first of these, "Science in International Perspective," will have as speakers three eminent physicists, Patrick M. S. Blackett, Sir Lawrence Bragg (The Royal Institution, London), and Victor F. Weisskopf (Massachusetts Institute of Technology). The second symposium, "Political Aspects of the Population Explosion," is the final session of the five-part symposium on this subject arranged by George W. Wharton (Ohio State University) for the AAAS Council Affairs Study Committee on Population Explosion and Birth Control. The third symposium, "Scientific Exchange and Use of Information," will be arranged by Phyllis V. Parkins (BioSciences Information Service, *Biological Abstracts*, Philadelphia). The fourth symposium, "Systems of Pollution Control," is jointly sponsored by the AAAS Sections on Engineering (M) and Agriculture (O). Arrangers of

the symposia are Paul Rosenberg (Paul Rosenberg Associates, Pelham, New York) and Nyle C. Brady (Cornell University).

28 December, afternoon. Part II, "Moving Frontiers of Science." One lecture, "The Changing Man," will be given by Th. Dobzhansky (Rockefeller University). Another lecture will be given by Daniel S. Greenberg (AAAS) on "Problems of Securing Constructive Legislation."

The Seventh George Sarton Memorial Lecture, now sponsored by the History of Science Society, is scheduled to follow the "Moving Frontiers" lectures on the afternoon of 28 December. This year's speaker has not yet been announced.

28 December, evening. The address of the retiring president of the AAAS will be given by Henry Eyring. Preceding the address, there will be a brief word of welcome from John W. Gardner, general chairman of the Eighth Washington Meeting. Announcements will be made of two awards—the Newcomb Cleveland prize for 1965 and the current Socio-Psychological prize. A reception for all registrants follows, with refreshments provided.

29 December, evening. The annual joint address of the Society of the Sigma Xi and the United Chapters of Phi Beta Kappa. The speaker has not yet been announced.

30 December, evening. The annual illustrated lecture and film of the National Geographic Society, usually a first showing, again will be held.

Other General Events

The AAAS *Committee on Arid Lands* will have a two-session symposium on "Migration to the Arid Lands of the United States." Cosponsored by seven AAAS sections, this program is being arranged by Marion Clawson (Resources for the Future, Inc., Washington, D.C.), who will preside and provide introductory remarks. Tentative titles and speakers are:

1) The Physical Capacity and Limitations of the Arid Lands for Greater Settlement, Homer Aschmann (Department of Geography, University of California, Riverside).

2) Health Opportunities and Hazards of the Arid Zones, speaker to be arranged.

3) Socioeconomic Implications of

Migration to the Arid Lands, speaker to be arranged.

4) Political Implications of Migration to the Arid Lands, Dean E. Mann (Department of Political Science, University of California, Santa Barbara).

5) Agricultural Potentials of the Arid Lands of the Western United States, Wynne Thorne (Vice President for Research, Utah State University).

6) National Implications of Increased Settlement on Western Arid Lands, R. W. Richardson, Jr. (Rockefeller Foundation).

The AAAS *Committee on Science in the Promotion of Human Welfare* and the *Scientists' Institute for Public Information* will jointly sponsor a two-session symposium, "The Utility of the Construct of Race," arranged by Margaret Mead (American Museum of Natural History) and Th. Dobzhansky (Rockefeller University). The sponsors felt that "... there is widespread ignorance in the scientific community of the relationship between relevant biological theories, such as population genetics, Mendelian types of heredity, the transmission and development of cultural forms, and the social issues arising out of contacts between populations usually subsumed under the title of race relations. It is felt that there is a need for a responsible review of the relevance of contemporary biological theories, with representation from those who do, and those who do not, find the construct of race useful. The symposium will emphasize that any area of science in which research is no longer being undertaken tends not only to stagnate but to retrogress." The Sections on Anthropology (H) and Zoological Sciences (F) will be cosponsors. Participants will include members of the SIPI committee as well as other scientists.

The first four sessions of the symposium on Population Problems in A Changing Environment, is the joint program of the AAAS *Council Affairs Study Committee on Population Explosion and Birth Control* and the AAAS Section on Zoological Sciences (F); it is cosponsored by the Ecological Society of America, and arranged by George W. Wharton (Ohio State University). The program will be concerned with Population Control in Biological Systems including Man, Medicine and Population Growth, and Motivation in Use of Contraceptives, as well as Political Aspects.

The *Commission on Science Education* (John R. Mayor, AAAS) plans a report session.

The *Academy Conference*, founded in 1927 as a committee of the AAAS, is composed of the official representatives of the 47 academies of science affiliated with the AAAS. The Conference has had a program at each annual meeting of the Association since 1928. This year's 38th meeting will be held on 27 December. There will be a full day of sessions. At the business meeting in the morning, reports of the individual academies will be distributed and discussed.

The program sessions, with president-elect V. Elving Anderson (University of Minnesota) presiding, will be devoted to "The Academies Between Meetings III." One principal speaker will be E. G. Sherburne, Jr. (AAAS), whose subtopic will be: "The Role of State and Local Academies of Science in Improving the Public Understanding of Science." This third in the series of major problems with which the senior academies are concerned is being arranged by Karlem Riess (Tulane University). The day will conclude with the annual Academy Conference Dinner and the Conference presidential address by James A. Rutledge (Univer-

sity of Nebraska); past-president Karlem Riess will preside.

The session for the American Junior Academy of Science Program will be held on 28 December. It will be arranged by William W. Scott, Associate Program Director, College Teacher Programs, National Science Foundation.

The Academy Conference also will sponsor the 20th Annual Junior Scientists Assembly, a program for selected high school students interested in science and scientific careers arranged by Keith C. Johnson, Supervising Director of Science, Public Schools of the District of Columbia.

AAAS Council Meeting

Again, as last year, the AAAS Council will meet on only one day, 30 December. The session will begin at 9:00 a.m. and continue until all business is transacted. Because the election of the AAAS president-elect and of new members of the Board of Directors is conducted by mail, with results simply announced, more time is available for consideration of matters that affect all science and society. The work of the Council is materially assisted by the Committee on Council Affairs.

Science Exhibits

The importance of the Eighth Washington Meeting has already been recognized by those who produce the books, instruments, and materials which scientists and teachers use. Applications for exhibit booths in the Exhibit Halls of the Sheraton-Park Hotel have been received at a most gratifying rate. At this time, seven full months in advance of the meeting, relatively few booths remain to be assigned. Every effort will be made, however, to accommodate exhibitors who still want space.

This year's Annual Exposition of Science and Industry will be one of the most attractive ever presented. Leading publishers, optical companies, instrument makers, and many suppliers of laboratory materials and equipment will show their latest publications and products. In addition, there will be selected displays of the research activities of large industrial firms and exhibits of governmental agencies.

Incidentally, the Exposition is not at all like a science fair and it is *not* intended for young people below the college, or the exceptional high school senior, level. Most of the exhibits are too technical for younger students



U.S. Capitol [U.S. Navy Official Photograph]

of science. (To meet the interests of the latter, the Association's Academy Conference annually arranges a Junior Scientists Assembly, at which eminent scientists address a large audience of high school students on aspects of science and scientific careers.) In the best interests of exhibitors and those interested in their displays, only registrants are admitted to the Exposition and *young persons under 16 are neither registered nor admitted.*

Science Theatre

The AAAS Science Theatre, a regular feature of the Association's annual meeting since 1947, again will show a choice selection of science films, foreign and domestic. These films will be shown in a special room reached only through the exhibit area. The theatre will run each film at least twice, so that those who are interested in a particular film will have more than one opportunity to see it.

At the AAAS meetings of the past several years, a number of the films evoked spontaneous applause! It is believed that they may do so again in 1966.

As with the Exposition, young people under 16 are neither registered nor admitted to the Science Theatre.

Physical Facilities and Housing

Center of the meeting and AAAS Headquarters will be the attractive Sheraton-Park Hotel, which will accommodate most of the larger sessions, the Annual Exposition of Science and Industry, AAAS Main Registration-Information Center, AAAS Pressroom, AAAS Office, and the AAAS Science Theatre. This hotel's large ballroom will be the site of the special sessions and principal evening events.

The other two large hotels, the adjacent Shoreham and the Washington Hilton, will each house large fractions of the sessions and of the attendance. In a very real sense, they will be headquarters for the AAAS sections and participating societies based therein.

Special low flat rates at several levels have been established but these and the headquarters of the sections and societies will be announced in *Science* in July, at which time there will be coupons for housing and advance reg-

istration among the advertising pages. To secure the special rates, registrants should use the hotel room coupon, or a reasonably accurate copy of it, and should send it directly to the AAAS Housing Bureau in Washington *after*

Call for Papers by AAAS Sections

Five sections of the Association will arrange sessions for contributed papers at the Washington meeting.

(Note: Contributed papers in animal behavior, ecology, mathematics, or zoological sciences should be submitted to the appropriate society program officer of the Animal Behavior Society, American Mathematical Society, Ecological Society of America, or American Society of Zoologists, respectively, rather than to any section officer.)

The secretaries of the AAAS sections to whom titles and abstracts of papers should be sent, *not later than 30 September*, are as follows:

E-Geology and Geography. Richard H. Mahard, Department of Geology and Geography, Denison University, Granville, Ohio 43023

G-Botanical Sciences. Warren H. Wagner, Jr., Department of Botany, University of Michigan, Ann Arbor 48104

H-Anthropology. Anthony Leeds, Department of Anthropology, University of Texas, Austin 78712

Np-Pharmaceutical Sciences. Joseph P. Buckley, School of Pharmacy, University of Pittsburgh, Pittsburgh, Pa. 15213

Q-Education. F. B. Dutton, Science and Mathematics Teaching Center, Michigan State University, East Lansing 48823

Although the general deadline is 30 September, the sections, and subsequently the AAAS office, would be pleased to receive titles as much in advance of that date as possible.

the July announcement appears. As usual, advance registrants will receive the *General Program* early in December.

A synopsis of the programs, arranged by disciplines, follows. The names given in parentheses are those of section and society officers or other program chairmen.

Mathematics (A)

The program of Section A (Wallace Givens, Argonne National Laboratory) includes the vice-presidential address of Albert W. Tucker (Princeton University). His topic will be on a subject in combinatorial mathematics. The section will also jointly sponsor or cosponsor most of the symposia in the "A" series that follows.

The *American Mathematical Society* (Gordon L. Walker, American Mathematical Society, P.O. Box 6248, Providence, R.I.) will have one or more sessions for contributed papers.

The *Association for Computing Machinery* (Harry Huskey, Computing Center, University of California, Berkeley) will sponsor a full day session (with possible participation of the local ACM chapter). It will probably be cosponsored by AAAS Sections on Industrial Science (P) and Information and Communication (T).

The *Conference Board of the Mathematical Sciences* (John R. Mayor, AAAS) is expected to sponsor a symposium under its planned Colloquium on Education in the Mathematical Sciences.

The usual intensive program of the *National Council of Teachers of Mathematics* (James D. Gates, NEA Building, Washington, D.C.) with the AAAS is scheduled for 27 December.

The *Society for Industrial and Applied Mathematics* (James H. Griesmer, IBM Watson Research Center, Yorktown Heights, N.Y.) will sponsor a two-session symposium "Combinatorial Problems in the Life Sciences," 27 December. A cosponsor with Section A will be the Biometric Society ENAR. The program will include speakers from both the life sciences and mathematical sciences. Attention will be focused on existing applications of combinatorial methods, as well as on current unsolved problems in the life sciences which have combinatorial aspects.

Physics (B)

(The two programs in which P. M. S. Blackett, Sir Lawrence Bragg, and Victor F. Weisskopf will participate have been noted under Special Sessions.)

Section B (Stanley S. Ballard, University of Florida) will sponsor an all-day session at the new Gaithersburg campus of the National Bureau of Standards. NBS will provide bus service. In the morning, sessions arranged by NBS probably will comprise a series of papers on the present status of the basic standards with speakers largely from the Bureau but there may be others (for example Norman Ramsey, Harvard) on precision time standards. The Physicists' Luncheon will be jointly sponsored by *Sigma Pi Sigma* (Marsh W. White, Pennsylvania State University), and will be held at the NBS. The vice-presidential address by Allen V. Astin, Director, NBS, will follow the luncheon. In the afternoon, tours of the NBS laboratories will be arranged by Bureau personnel; return to Washington by bus in late afternoon.

Another program, "Ernst Mach—Scientist and Philosopher," arranged by Raymond J. Seeger (NSF), will commemorate the 50th anniversary of Mach's death. It will be cosponsored by the Section on History and Philosophy of Science (L).

Section B will cosponsor the symposium, Astronomical Ultraviolet, X-ray, and Gamma Ray Observations Outside the Atmospheres, of the Section on Astronomy (D) and the program of Harvard Project Physics.

The *American Meteorological Society* (Kenneth Spengler, AMS, Boston) will have a one- or two-session symposium on the "World Weather Watch" and will cosponsor appropriate programs.

The first public discussion of the experimental course *Harvard Project Physics* will be presented at this year's AAAS meeting, jointly sponsored by AAAS Sections on Physics (B) and Education (Q). Topics include: A brief history of Harvard Project Physics; the philosophy and approach of the new course; the course content as it stands at the time; flexibility and design of the course; the nature of the laboratory program; the films, transparencies, and other instructional materials; the varied use of pro-

grammed instruction; and evaluation and research associated with the Project. In addition to F. James Rutherford, Executive Director, speakers will include Gerald Holton and other staff members.

Space Science

The *American Astronautical Society* (Charles Tilgner, Jr., Grumman Aircraft Engineering Company, Bethpage, Long Island, New York; and Orville D. Reid, 4660 Reservoir Road, Washington, D.C.) will have another important two-session symposium on 29 December. Details of the symposium are not yet available.

Chemistry (C)

The program of Section C (Alfred E. Brown, Harris Research Laboratories, Washington, D.C.), to be held jointly with the *Chemical Society of Washington* (W. G. Berl, Johns Hopkins University Applied Physics Laboratory, Silver Spring, Md.) will include the following symposia:

Two sessions "Chemistry, Form, and Function," chaired by Bernard B. Brodie, chief, Laboratory of Chemical Pharmacology, National Heart Institute, 26 December; two sessions sponsored jointly with AAAS Section on Agriculture (O), chaired by Fred R. Senti, deputy administrator, Nutrition, Consumer, and Industrial Research, Agricultural Research Service, 27 December (the morning session will be entitled "Can Science Feed the World?"; the afternoon session, "U.S. Policy on Food and the World's Future"); and two-session symposium sponsored jointly with AAAS Section on Zoological Sciences (F), chaired by George W. Irving, administrator, Agricultural Research Service, 29 December (the morning and afternoon sessions, respectively, will be entitled "Scientific Aspects of Pest Control" and "Pest Control, Public Policy, and Human Welfare.")

Details of the program of the *American Association of Clinical Chemists* (Roderick P. MacDonald, Harper Hospital, Detroit) for its usual special meeting with the AAAS are not yet available. The meeting probably will have sessions for contributed papers and a symposium.

Astronomy (D)

The program of Section D (Frank Bradshaw Wood, University of Pennsylvania) will include at least two symposia.

The first of these, "Astronomical Ultraviolet, X-ray, and Gamma-Ray Observations Outside the Atmosphere," is being organized by David Fischel (Goddard Space Flight Center, Astrophysics Branch, Greenbelt, Md.), 27 December; it will be cosponsored by the Section on Physics (B).

The second, "Topics in the History of Astronomy," is being arranged by Edward Grant (School of Historical Studies, Institute for Advanced Studies, Princeton, N.J.), 29 December, and will be cosponsored by the Section on History and Philosophy of Science (L) and by the History of Science Society.

Other symposia are under consideration.

Geology and Geography (E)

The program of Section E (Richard H. Mahard, Denison University) will comprise a four-session symposium on Atlantic Coastal Plain and Continental Shelf Geology (Frank C. Whitmore, Jr., U.S. Geological Survey, Room E100, U.S. National Museum, Washington, D.C.) including coastal plain stratigraphy and geomorphology, sea-level changes, wave and current erosion and deposition, wind deposition and wind transport, and coastal plain paleontology and ecology, off-shore drilling, sampling, and Gulf Stream and mineral resources of coastal plain and the continental shelf; a symposium on "Geologic Research Potential of Earth Orbiting Vehicles"; and one or more sessions for contributed papers in geology.

It is expected that at least two half-day sessions will be organized by the *Middle Atlantic Division of the Association of American Geographers* (Meredith F. Burrill, Office of Geography, Department of the Interior) and will be cosponsored by AAAS Sections E and K. The geological sessions of Section E are jointly sponsored by the *Geological Society of America*. The geographers will also cosponsor the symposium of the AAAS Committee on Arid Lands,

"Migration to the Arid Lands of the United States."

The Section E dinner is tentatively planned for the evening of 29 December at the Cosmos Club, followed by the retiring vice-presidential address of Harry Ladd (U.S. Geological Survey, Washington).

The *National Geographic Society* (Ralph W. Gray, National Geographic Society, Washington, D.C.) will present its annual lecture and film, 30 December.

The 1966 program of the *National Speleological Society* (William B. White, Department of Geochemistry, Pennsylvania State University) will celebrate the Twenty-Fifth Anniversary of the Society. It will consist of sessions of invited papers on cave geology and cave exploration (29 December) and cave biology and reviews (30 December).

Zoological Sciences (F)

The program of Section F (David E. Davis, Pennsylvania State University) will be dovetailed with the extensive programs of the zoological and biological societies that are active participants. The Section will cosponsor the symposia of the zoological societies affiliated with it. Beginning the afternoon of 26 December, Section F will jointly sponsor with the Council Study Committee on Population Explosion, the four-session symposium "Population Problems in a Changing Environment" (George W. Wharton, Ohio State University); cosponsored by the Ecological Society of America and the Animal Behavior Society.

The business meeting of Section F is scheduled for the afternoon of 27 December. The Biologists' Smoker, sponsored jointly with the Section on Botanical Sciences (G) and all participating biological societies, is planned for the evening of 27 December.

A two-session symposium, "Over-exploited Animal Populations," will be jointly sponsored with the Biometric Society, ENAR, and the Section on Statistics (U), 29 December. Most of the papers will be found listed under the Biometric Society (Statistics). Concurrently, Section F will jointly sponsor Section C's two-session symposium on Pest Control.

At the Zoologists' Dinner, 29 December, the address of retiring vice

president Richard B. Roberts (Carnegie Institution of Washington) will be "Critical Points of Evolution."

On 30 December, Section F and the Wildlife Society will jointly sponsor the symposium, "Changes Caused by Wildlife," arranged by John Buckley (Office of Science and Technology, Executive Office of the President).

The *American Fisheries Society* (Edwin L. Cooper, Pennsylvania State University) again will have a special meeting with the AAAS. Details are not yet available.

The national meeting of the *American Society of Zoologists* (Louis E. DeLanney, Wabash College; Ithaca College after 1 September) will include 23 sessions for contributed papers and some 9 symposia sessions, 27-30 December. Meetings of the Policy and Executive Committees are scheduled for 27 December. The Division of Animal Behavior will cosponsor the several symposia of the Animal Behavior Society.

Two symposia, "Hypothalamo-hypophyseal Relationships," arranged by Aubrey Gorbman (University of Washington), and "Parathyroid Gland Endocrinology," arranged by John Cortel-you (DePaul University) will be sponsored by the Division of Comparative Endocrinology. The Division of Comparative Physiology will sponsor a four-session symposium, "Comparative Aspects of Muscle," arranged by Graham Hoyle (University of Oregon).

The Division of Developmental Biology is developing a symposium, probably with the Society for Developmental Biology and the Botanical Society of America; its title is not firmly defined at present. Also in preparation is a symposium sponsored by the Division of Invertebrate Zoology. The Division of Vertebrate Morphology will sponsor a symposium on "Olfactory Apparatus of Vertebrates." The business meeting of the Society will be held on 29 December. Local representative of the ASZ is George Chapman (Georgetown University).

The program of the recently organized *Animal Behavior Society* (Edwin M. Banks, University of Illinois) for its second regular meeting with the AAAS includes a two-session symposium, "Recent Advances in the Behavior of Marine Animals," (Howard Winn, University of Rhode Island), a second two-session symposium, "Animal Behavior, Human Behavior, and Genetics" (Ethel Tobach, American

Museum of Natural History), and at least six sessions for contributed papers. The Animal Behaviorists' Luncheon and business meeting are scheduled for 29 December. The entire program is cosponsored by the Section of Animal Behavior and Sociobiology of the Ecological Society of America and the Division of Animal Behavior of the American Society of Zoologists.

The annual meeting of the *Herpetologists' League* (Philip W. Smith, Illinois Natural History Survey, Urbana) with the AAAS will have three sessions for contributed papers and a Council meeting, 29 and 30 December.

The national annual meeting of the *Society of Systematic Zoology* (Robert P. Higgins, Wake Forest College) over the period 26-29 December, will consist of four symposia, three sessions for contributed papers, two council meetings, the annual business meeting, and the coffee hour for all systematists.

Among the titles of the symposia that are planned are: "Empirical Character Weighting in Animal Taxonomy" (Ernst Mayr, Harvard); "The Effect of Body Size on Species Interactions" (John L. Brooks, Yale); and "Systematics in Recent and Fossil Animals" (Ellis L. Yochelson and J. T. Dutro, Geological Survey, U.S. National Museum).

Biological Sciences (FG)

The program of the annual national meeting of the *American Society of Naturalists* (Rollin D. Hotchkiss, Rockefeller University), will include a two-session symposium, "Polarity of Organization in Genetic Material"; the presidential address of Reed C. Rollins (Gray Herbarium, Harvard); and the business meeting of the society.

As in 1955 and 1958, when the AAAS met within its territory, the *Association of Southeastern Biologists* (Elsie Quarterman, Box 1616 Station B, Vanderbilt University, Nashville, Tennessee) will sponsor a special program. The symposium of two sessions will be concerned with botanical problems in the Southeast.

The *Beta Beta Beta Biological Society* (Mrs. Frank G. Brooks, P.O. Box 515, Ansonia Station, New York, N.Y. 10023) will hold its regular recurrent national meeting with the AAAS. The business session will be followed by a

luncheon and an address by a prominent biologist.

The annual meeting of the *Ecological Society of America* (Carl D. Monk, Savannah River Ecology Laboratory, Bldg. 772-G, Aiken, S.C.) over the whole period of 26–31 December, will include several cosponsored symposia in the area of statistical ecology and social regulation of populations and probably others. Seven or eight sessions for contributed papers in varied fields of ecology, other than animal behavior, are also planned.

Titles and abstracts, not over 150 words, should be sent to Dr. Monk, preferably by 1 September. Details will be published in the *Bulletin* of the Ecological Society of America.

Titles and abstracts for animal behavior papers should be sent to E. M. Banks (University of Illinois) by 1 September.

Mountain Lake Biological Station "Alumni" who are present at the meeting again will sponsor an annual breakfast with the AAAS for all persons who have ever been students, investigators, or staff members at the Station. It is hoped that one of the alternate directors, J. L. Riopel or J. J. Murray, Jr., or both may be present.

The *Society for the Study of Evolution* (Herbert G. Baker, Department of Botany, University of California, Berkeley) will hold a national meeting with the AAAS this year. No details are available at this time.

Botanical Sciences (G)

Section G (Warren H. Wagner, Jr., University of Michigan) will continue its series of symposia sessions, "Plant Biology Today: Advances and Challenges," which feature invited review papers on basic topics to keep biology teachers and others informed on recent advances. The program is cosponsored by the Botanical Society of America. Between these sessions there will be a luncheon for all botanists at which Charles E. Olmsted (University of Chicago) will deliver his vice-presidential address. There will also be one or more sessions for contributed papers and the Section will cosponsor appropriate symposia developed by other sections or by participating societies (for example, the symposium "Migration to the Arid Lands of the United States" sponsored by the

AAAS Committee on Arid Lands). Sections F and G will cosponsor the Biologists' Smoker, from 9:30 till 11 p.m., 27 December.

Anthropology (H)

The tentative program of Section H (Anthony Leeds, University of Texas), which ranges over the entire period of 26–31 December, consists of the two-session symposium, "Man-Animal Linked Subcultural Systems" (a sequel of the Role of Animals in Human Ecology Adjustments given in 1961), arranged by Margaret Mead (American Museum of Natural History); a three-session symposium "Frontiers of Anthropology—Cantometrics and Culture," arranged by Alan Lomax (Columbia University); a symposium, "The Effect of Field Work on the Anthropologist as a Humanist," arranged by Mariam Kreiselman Slater (Queens College, New York); three sessions for contributed papers; and the vice-presidential address of Cora Du Bois (Harvard University), which will be followed by a cocktail party. Section H will cosponsor the symposium, "The Utility of the Construct of Race," described under Special Sessions.

Psychology (I)

Four symposia and the vice-presidential address will form the nucleus of Section I's program (Frank W. Finger, University of Virginia), 29 and 30 December.

A session on "Signal Detection with an Undefined Observation Interval" is being arranged by David M. Green (University of California, San Diego). Speakers will be James P. Egan (Indiana University), "Signal detection with an undefined observation interval within the framework of the theory of signal detectability"; Charles S. Watson (Defense Research Laboratory, University of Texas, and Central Institute for the Deaf, St. Louis), "Performance of listeners and an artificial ear on a vigilance problem"; R. Duncan Luce (University of Pennsylvania), "Threshold concept in the analysis of temporally unstructured detection experiments"; and Wilson P. Tanner, Jr. (University of Michigan), "ROC curves as obtained from 'vigilance' experiments."

"Perceptual Change" is the topic of a symposium organized and chaired by Sherwin J. Klein (Wright State Campus, Ohio State University). Individual presentations will include "Through the looking glass, or adapting to an optically reversed world," by Charles Harris (University of Pennsylvania); "Some aspects of the problem of visual adaptation," by Irvin Rock (Yeshiva University); "The conditions and consequences of adaptation," by John Hay (Smith College); and "Maintaining stability in sensorimotor coordination," by Richard Held (Massachusetts Institute of Technology). Julian Hochberg (New York University) will serve as discussant.

Experimental findings relevant to the "Control of behavior by aversive consequences" will be described by James Dinsmoor (Indiana University), Dennis Kelly (Walter Reed Army Institute of Research), Harley M. Hanson (Merck Institute for Therapeutic Research, West Point, Pa.), Joseph Dardano (University of Maryland), Bernard Beer (Walter Reed Army Institute of Research), and Philip Himeline (Harvard University). Attempts to effect a systematic integration of empirical findings in this area will be outlined by Jack D. Findley (Institute for Behavioral Research, Silver Spring, Md.), Roger Kelleher (Harvard University), William H. Morse (Harvard University), John J. Boren (Walter Reed Army Institute of Research), and Murray Sidman (Harvard University and Massachusetts General Hospital). Finally, there will be consideration of the theoretical issues involved, by William N. Schoenfeld (Queens College), Richard Herrnstein (Harvard University), Douglas Anger (Upjohn Company), Charles Ferster (Institute of Behavioral Research), and Eliot Hearst (University of Missouri). The arranger is Joseph V. Brady (Walter Reed Army Institute of Research and University of Maryland).

J. McV. Hunt (University of Illinois) is the coordinator of a symposium entitled "The Role of Experience in Intellectual Development." Participating will be Mark R. Rosenzweig (University of California, Berkeley), Burton L. White (Harvard University), Sheldon H. White (Harvard University), and William Fowler (University of Chicago). The vice-presidential address of Robert M. Gagné (University of California, Berkeley)

will have as its title, "Contributions of Learning to Human Development."

The *American Speech and Hearing Association* (Earl D. Schubert, Division of Speech Pathology and Audiology, Stanford University Medical School) will hold its first special program with the Association this year. The title of the group of invited papers (29 December) probably will be "Experimental Techniques for the Assessment and Alleviation of Communication Disorders."

Social and Economic Sciences (K)

Section K (Eugene B. Skolnikoff, Massachusetts Institute of Technology) will coordinate and cosponsor the various sessions of the "K series" and may arrange a group of invited papers. The vice-presidential address will be given 29 December by Kenneth E. Boulding (University of Michigan); his tentative title is: "Dare We Take the Social Sciences Seriously?", subtitled, "The Threat of Science to Traditional Values."

It is planned that the program of the *American Economic Association* (Harold F. Williamson, American Economic Association, 629 Noyes Street, Evanston, Illinois), cosponsored by Section K, this year will be 29 December instead of the traditional 26th so that Boulding's address may follow it.

The *American Political Science Association* (Ithiel de Sola Pool, Massachusetts Institute of Technology) will have its customary special program on 27 December. The Association will also cosponsor Part IV of the symposium, Symbolisms and Systems, jointly sponsored by the Society for General Systems Research and the Academy of Psychoanalysis.

The annual special meeting of the *American Society of Criminology*, also 27 December, again is the responsibility of its secretary, (Charles Newman, Kent School of Social Work, University of Louisville).

The *American Sociological Association* (J. Allan Beegle, Michigan State University) usually sponsors two symposia which are cosponsored by Section K. One program, "Urban Influence and the Hinterland," probably to be held the afternoon of 27 December, is nearly complete. The speakers and their subjects are: "Patterns of village growth, 1900 to 1960" by Glenn V. Fuguitt, (University of Wisconsin); "Differential participation

in a contemporary farmers' organizational movement: some data and theory on the social psychology of social movements" by Denton Morrison (Michigan State University); and "Urban influence on fertility and employment patterns of women" by James D. Tarver (Oklahoma State).

Details of the program of the *Metric Association* (Robert P. Fischellis, Ohio Northern University) are not yet available.

The *National Institute of Social and Behavioral Science* (Donald P. Ray, 863 Benjamin Franklin Station, Washington, D.C. 20044) will have its usual session for selected contributed papers the afternoon of 28 December.

The *Society for the Scientific Study of Religion* (Hirsch Lazaar Silverman, Department of General Professional Education, Seton Hall University, South Orange, N.J.) again will hold a special meeting with the AAAS. Details are not yet available.

History and Philosophy of Science (L)

The program of Section L (Norwood Russell Hanson, Yale University) will be coordinated with, and held jointly with, those of the national meeting of the *History of Science Society* (Bernard Finn, Curator, Division of Electricity, Smithsonian Institution, Washington, D.C.). The Section will also cosponsor the symposium of the Section on Physics (B), "Ernst Mach—Scientist and Philosopher," arranged by Raymond J. Seeger (National Science Foundation).

The program of the Society begins with a session the morning of 27 December, and includes a joint session with the Society for the History of Technology, and a reception at the Smithsonian Institution in the afternoon. A council meeting is scheduled for that evening.

On 28 December there will be concurrent sessions for papers, both morning and afternoon, with a luncheon intervening. On 29 December the symposium in the morning will be "Topics in the History of Astronomy," cosponsored with the Section on Astronomy (D). There will be an afternoon session after which the vice-presidential address of Section L will be given by Melvin Kranzberg (Case Institute of Technology).

Sessions of the *Society for the History of Technology* (Melvin Kranzberg, Case Institute of Technology), not already mentioned as joint, will

be concurrent with those of the History of Science Society.

The 12th annual meeting of the *Society for General Systems Research* (Richard F. Ericson, George Washington University) begins 26 December with a symposium, "Dynamics of Industrial and Economic Systems" arranged by Edward B. Roberts (Sloan School of Management, Massachusetts Institute of Technology).

The program on 27 December, conceived and coordinated by John B. Calhoun (National Institute of Mental Health), entitled "Dialogue of Change: Systems in Interaction," is jointly cosponsored by AAAS Sections on History and Philosophy of Science (L), Social and Economic Sciences (K), Industrial Science (P), and Information and Communication (T).

It is considered that "... in this era of radical change in culture and technology, and of a population implosion augmented by the increasing psycho-social mass of the average individual, most systems of social communication are plagued by disaffection and isolation among their member units. Continuously fewer units exert an effective 'voice' or influence on the course of the system of which they are contained members. Changed structure of the system generates conflicts within the relationship of its member units. This symposium will focus on the adjustment within, and between, systems which have followed, or could follow, the conflicts engendered by changed relationships."

With the Academy of Psychoanalysis, the Society is a joint sponsor of the four-session symposium on Symbolism and Systems (29 and 30 December) arranged by Edwin A. Weinstein (Washington School of Psychiatry). Parts and Speakers are:

Part I. Social and Developmental Aspects—Social Class and Linguistic Development (Basil Bernstein, University of London Institute of Education, London, England); Concepts as Operants (Israel Goldiamond, Institute for Behavioral Research, Silver Spring, Md.).

Part II. Research Methods—The Verbal Loop Hypothesis (Murray Glanzer, New York University); Experimental Investigation of Freudian Symbolism (Julius Laffal, Yale University); The Analysis of Delusional Language (Raymond Johnson, Washington School of Psychiatry).

Part III. Symbolic Styles in Psychopathology (panel discussion)—Joseph

Jaffe, (285 Central Park West, New York, N.Y.); Albert Schefflen (Temple University School of Medicine); Jarl Dyrud, (Institute for Behavioral Research, Silver Spring, Md.); Montague Ullman (Maimonides Hospital, Brooklyn, N.Y.); and William Allison White (Institute of Psychiatry, New York, N.Y.).

Part IV. Symbolic Uses of Politics (panel discussion)—Murray Edelman (University of Illinois); Fred Greenstein (Wesleyan University); and David McK. Rioch (Walter Reed Army Institute of Research). This last part is cosponsored by the American Political Science Association.

A special event for 29 December is a luncheon and address by Peter J. Caws, (Department of Philosophy, Hunter College, City University of New York) nominated for vice president elect (1967) for Section L.

Engineering (M)

It is expected that the program of Section M (Paul Rosenberg, Paul Rosenberg Associates, Pelham, New York) will include a symposium, of probably three sessions, on "Engineering for Pollution Control," which will emphasize (i) the scientific information needed by the engineer to define the problems confronting him, and (ii) the principles and methodology of the engineers. One session, joint with the Section on Agriculture (O), has AAAS interdisciplinary status. Another session will be "Pollution of the Upper Atmosphere and Near Space." Continuation of the engineering film theatre is under consideration.

Medical Sciences (N)

The program of Section N (Robert E. Olson, Saint Louis University School of Medicine) will include a day devoted to "Control Mechanisms in Biology" and to "Computer Science as Applied to Control Problems," arranged by Britton Chance (University of Pennsylvania) who will incorporate his vice-presidential address as a part of the symposium. Also there will be a three-session symposium, "Biological Functions of Lipids," arranged by Robert E. Olson. The parts will deal with the function of lipids in membranes; their function in the control of fat transport; and the biochemical function of

the fat-soluble vitamins. The section will also cosponsor appropriate programs.

The program of the *Academy of Psychoanalysis* (Edwin A. Weinstein, Washington School of Psychiatry), "Symbolism and Systems," has already been described, in the program of the Society for General Systems Research, last in the "L series."

The annual program of *Alpha Epsilon Delta* (Maurice L. Moore, national secretary, Bronxville, New York) is expected to include a symposium on local medical school requirements and admission procedures; it will be followed by the annual luncheon and address, and by a tour of local medical facilities.

Details of the plans of the *American Physiological Society* (Robert E. Smith, University of California Medical School, Los Angeles) are not yet available.

The *American Psychiatric Association Committee on Research* is planning a four-session symposium on "Prejudice."

Dentistry (Nd)

Section Nd will sponsor a four-session symposium, "The Biology of the Mouth" (29–30 December) arranged by Philip Person (chief, Special Research Laboratory for Oral Tissue Metabolism, Veterans Administration, Brooklyn, N.Y.). Cosponsors include the AAAS Section on Medical Sciences (N); the American Dental Association; International Association for Dental Research, North American Division; and the American College of Dentists.

"In this symposium oral structures and oral mechanisms will be considered from multidisciplinary viewpoints seeking to integrate our knowledge of the mouth and related structures in a broad and comprehensive biological perspective. An attempt will be made to create a continuous thread of understanding, linking classical with current molecular and quantum disciplines of biology, as they are brought to focus upon the study of oral structures. To begin with, from the standpoint of classical comparative biological disciplines, teeth and jaws have possibly received more intensive study than any other body components, and currently continue to play decisive and critical roles in assessment of mammalian evolution, particularly in respect to our understanding of the origin of man. In relation

to the more recently developed disciplines of molecular and quantum biology, the mineralized and collagen-containing structures of the mouth are providing very interesting and challenging systems for investigation of solid state phenomena in biology, that is, fluorescence, phosphorescence, and piezoelectric phenomena. Topics planned for discussion at the meeting include: Bone, Dentine, Enamel and the Origin of Vertebrates; the Origin, Evolution, and Biological Significance of Cartilage Tissues; the Evolution of Ground Substances and Matrices of Animal Tissues; the Evolution of Plant Cell Walls and Plant Tissue Matrices; Evidence from Tooth and Jaw in Studies of the Origin of Man; Comparative Studies of Salivary Glands and Salivas; Evolution of the Brain as Influenced by Oral Taste-Bite Mechanisms; Grooming of the Oral Cavity and Its Significance in Ecology; the Ecology of Oral Disease; Piezoelectric Phenomena in Teeth, Bones, and Collagens; N.M.R. Studies of Water Structure in Collagen and Mineralized Systems; and Fluorescence and Phosphorescence of Tooth and Skeletal Structures."

Pharmaceutical Sciences (Np)

The program of Section Np (Joseph P. Buckley, University of Pittsburgh) (29–31 December) will begin with two sessions for contributed papers on hospital pharmacy arranged by Joseph Oddis and Don E. Francke (American Society of Hospital Pharmacists, Washington, D.C.); and the Pharmacists' Luncheon. In the afternoon, in Section Np's Distinguished Lecture, Arthur Grollman (professor and chairman, Department of Experimental Medicine, University of Texas Southwestern Medical School, Dallas) will speak on "Hypertension: Pathogenesis and Treatment." A reception and the Pharmacists' Dinner will conclude the first day.

On 30 December there will be a morning session of contributed papers in the pharmaceutical sciences, arranged by Joseph P. Buckley. It will be followed in the afternoon by a symposium on "Therapeutic Incompatibilities Involved in Drug Dosage." This will cover the problem of therapeutic incompatibilities and its historical development; possible mechanisms involved in therapeutic incompatibilities; pre-clinical predictiveness of therapeutic incompatibilities; and clinical predictiveness of therapeutic incompatibilities.

The concluding speaker in this session will be Joseph D. McEvilla (professor, Pharmaceutical Economics, University of Pittsburgh School of Pharmacy) who will give an analysis of the incidence of therapeutic incompatibilities.

A final half day session of contributed papers in pharmaceutical sciences (31 December) will conclude Section Np's program which, in its entirety, will be cosponsored by the American Association of Colleges of Pharmacy; the American College of Apothecaries; the American Society of Hospital Pharmacists; the American Pharmaceutical Association, Scientific Section; and the National Association of Boards of Pharmacy.

Agriculture (O)

Section O (Nyle C. Brady, Cornell University) will have a seven-session symposium on "Agricultural Aspects of Environmental Pollution." Topics in Parts I and II (26 December) on Air Pollution are:

- 1) The Air Pollution Problem—Today and in the Foreseeable Future.
- 2) The Specific Effects of Air Pollution on Plants.
- 3) Forests and Air Pollution.
- 4) Airborne Radionuclides and Plants.
- 5) Airborne Radionuclides and Animals.
- 6) Airborne Fluorides and Animals.
- 7) Agriculture's Contribution to Air Pollution.
- 8) Socio-Economic Factors and Air Pollution Abatement.

The papers of Parts III and IV (27 December) on "Water Pollution" are:

- 1) The Dimensions of Our Water Pollution Problem.
- 2) Pesticides in the Aquatic Environment.
- 3) Monitoring of Pesticides in Water.
- 4) Agriculture's Contribution to Eutrophication.
- 5) Pollution from Industrial Wastes and Agriculture.
- 6) Siltation as It Affects Dam Fill and Aquatic Organisms.
- 7) The Effects of Watershed Treatments and Land Use on Siltation.
- 8) The Salinity Problem.
- 9) Use of Agricultural Lands for Sewage Effluent Renovation.
- 10) Socio-Economic and Political Aspects of Water Pollution and Agriculture.

Part V (28 December) has the status of an AAAS Interdisciplinary Symposium. Jointly arranged with the Section on Engineering (M), this session will emphasize principles and the latest techniques of determining water pollution.

Part VI (29 December) will be on Soil Pollution, and the subjects are as follows:

- 1) The Presence and Significance of Radionuclides in Soils.
- 2) Factors Affecting Radionuclide Uptake by Plants from Contaminated Soils.
- 3) Monitoring of Pesticides in Soils.
- 4) The Persistence of Pesticides in Soils.
- 5) Heavy Metal Contamination in Soils.

Part VII (29 December) which concludes the symposium will be on Animal Wastes, with the following subjects:

- 1) Human Waste Disposal in Rural Areas.
- 2) The Animal Waste Disposal Problem.
- 3) The Biological Aspects of the Problem.
- 4) Disposal Through Mechanical Operations.

Organizations cosponsoring this symposium on Pollution are the American Society of Agronomy, the American Society of Animal Science, the American Society of Plant Physiologists (Parts I and II), the Poultry Science Association (Part VI), the Society of American Foresters, and the Soil Conservation Society of America.

Section O itself is a cosponsor of the symposium on "Migration to the Arid Lands of the United States" sponsored by the Committee on Arid Lands; it is a joint sponsor of a symposium with the Section on Statistics (U); and a joint sponsor of a two-session symposium on Food with the Section on Chemistry (C).

Industrial Science (P)

Section P (Burton V. Dean, Case Institute of Technology) is planning a one-or two-session symposium on the conservation of industrial managerial manpower and of facilities. At the annual luncheon, Allen T. Bonnell (Community College of Philadelphia) will give the retiring vice-presidential address with current vice president Ellis A. Johnson (Department of Health, Education, and Welfare) presiding. The section will also confer the 1966

Industrial Science Award and cosponsor appropriate programs.

The Washington Chapter of the *Operations Research Society of America* may have a program on non-military governmental agencies using operations research techniques.

The Institute of Management Sciences will have a symposium on the "Role of the Sciences in Management Science," arranged by W. Edward Cushen, (National Bureau of Standards).

Education (Q)

It has already been mentioned that the AAAS *Commission on Science Education* (John R. Mayor, AAAS) will schedule a report session on 1966 activities. The *Cooperative Committee* (Emery L. Will, State University College, Oneonta, New York) will have a program "The Future of Science Education."

The program of Section Q (Frederic B. Dutton, Science and Mathematics Teaching Center, Michigan State University) will have appropriate joint programs with AERA and NARST; three sessions for contributed papers; a business meeting; and the vice-presidential address of Clarence H. Boeck (University of Minnesota). Probably there will be another session on International Science Education, and the AAAS Sections on Education (Q), Psychology (I), and Statistics (U) will be called on to produce a sequel to the successful symposium at Berkeley, "The Measurement of Quality in Education."

The science teaching societies (ANSS, NABT, NARST, and NSTA) that regularly meet with the AAAS, again joined by the CASMT, will have a coordinated program with the Association. The coordinator this year is Albert F. Eiss (NSTA, Washington, D.C.). The joint mixer will be late afternoon, 27 December, following a joint session with an invited address and reactions. The AAAS interdisciplinary symposium on pollution the morning of 28 December will be cosponsored by all of the science teaching societies and, on 29 December, they will jointly sponsor a session on human ecology. At other times, the societies separately will hold a series of concurrent sessions as in other years.

The annual national meeting of the *American Nature Study Society*, arranged by Douglas E. Wade (109 Depot Street, Oregon, Illinois) includes in ad-

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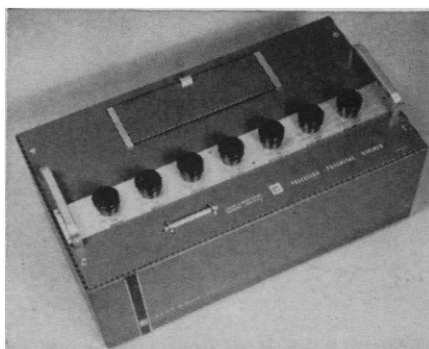
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dition to board meetings, three morning and one afternoon sessions; an ANSS-sponsored luncheon, an evening Naturalists' "At Home" (28 December); and the annual field trip with NABT (30 December).

The annual national meeting of the *National Association of Biology Teachers* (Jay Barton II, CUEBS, 1750 Pennsylvania Avenue, Washington, D.C., and William Stephensen, Earlham College, Richmond, Ind.) is similar to that of the ANSS program in pattern.

The regional meeting of the *National Science Teachers Association*, arranged by the national associate executive secretary, Albert F. Eiss (NSTA, Washington, D.C.), will consist of two or more sessions. The NSTA regional affiliate, the *Pennsylvania Science Teachers Association* (David Ulmer, Lock Haven State College, Lock Haven, Pennsylvania) will hold its annual installation meeting with the AAAS this year.

The *Educational Policies Commission* (James E. Russell, Educational Policies Commission, Washington, D.C.) will hold a special session of invited papers cosponsored by NSTA with the AAAS around the theme "Education and the Spirit of Science," (27 December).

Details of the symposium of the *National Association for Research in Science Teaching* (Frederic B. Dutton, Michigan State University) are not yet available.

Information and Communication (T)

In general, Section T's program (Phyllis V. Parkins, BioSciences Information Service, *Biological Abstracts*) is expected to follow the successful pattern of the past few years. There will be a two-session symposium, "The Impact on Society of the Communication of Science" arranged by Robert C. Harte (American Society of Biological Chemists, Washington, D.C.); another symposium on "The Place of Information Retrieval and Scientific Communication in the Education of Scientists" (Eugene Garfield, Swarthmore, Penna.), cosponsored by Section Q; a luncheon and an address by a distinguished speaker; and the vice-presidential address of William C. Steere (New York Botanical Garden).

Section T is the primary sponsor of the AAAS Interdisciplinary Symposium "Scientific Exchange and Use of Information" (Phyllis Parkins).

The *Society of Technical Writers and Publishers* (I. D. Welt, American University) is arranging a joint session with Section T.

The *National Association of Science Writers* (Leonard S. Zahn, Hill & Knowlton, Inc., 150 East 42 Street, New York) will have a business meeting, probably an invited speaker, and the annual dinner at which the AAAS-Westinghouse Science Writing Awards are announced.

Statistics (U)

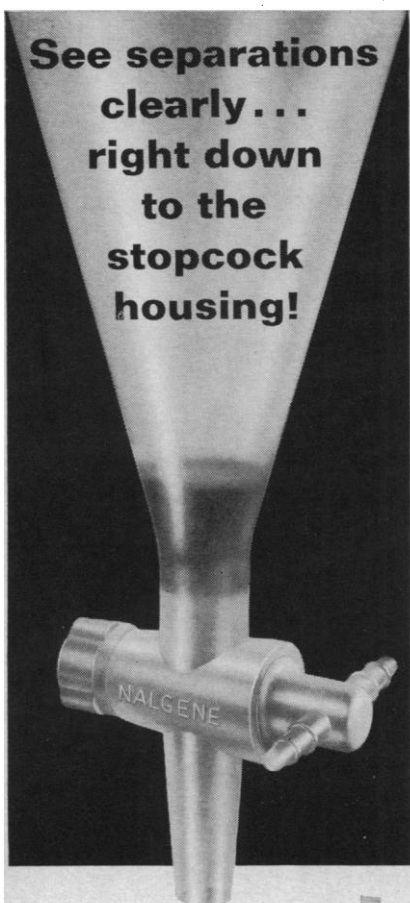
The program of Section U (Rosedith Sitgreaves, Teachers College, Columbia University) again will consist largely of joint sessions with other sections and with related societies. The vice-presidential address will be given by William G. Cochran (Harvard University).

Under the joint sponsorship of the *Biometric Society ENAR* (D. S. Robson, Cornell University) and the *Ecological Society of America*, there will be a two-session symposium (30 December) on "Statistical Ecology" arranged by E. C. Pielou (Canadian Department of Agriculture, Ottawa).

A second two-session symposium, joint with the AAAS Sections on Zoological Sciences (F) and on Statistics (U), and cosponsored by the American Fisheries Society, "Over-exploited Animal Populations," is nearly complete. Among the speakers are: (on whales) D. G. Chapman, Department of Mathematics, University of Washington; (on Atlantic haddock) M. D. Grosslein, Bureau of Commercial Fisheries, Woods Hole Laboratory; (topic undecided) M. B. Schaeffer, Scripps Institution of Oceanography; (on Central Pacific tuna) B. J. Rothschild, Bureau of Commercial Fisheries, Honolulu; (on Pacific sardines) G. I. Murphy, Department of Oceanography, University of Hawaii; (on Pacific salmon) P. A. Larkin, Biological Station, Nanaimo, B.C.; (on Great Lakes fisheries) Stanford H. Smith, Bureau of Commercial Fisheries, Ann Arbor, Mich.; (on North American ducks) A. D. Geis, Bureau of Sports Fisheries and Wildlife, Laurel, Md.; and (on seals) I. A. McLaren, Marine Sciences Centre, McGill University.

The American Fisheries Society will cosponsor the symposium of the Society for Industrial and Applied Mathematics, "Combinatorial Problems in the Life Sciences."

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Science in General (X)

A number of organizations, too general in their interests to be placed in any sectional series or under any specific discipline, constitute the "X series" in the printed *General Program* of the annual meeting. In this preliminary synopsis, the programs of one of these—the Academy Conference—has already been mentioned, under "Other General Events."

At its annual meeting, *Sigma Delta Epsilon*, graduate women's scientific fraternity (Eltona M. Schroeder, national president, Agricultural Research Service, USDA, Beltsville, Md.), will observe its 45th anniversary. The speaker at the luncheon for all women in science will be Margaret Stone (national second vice-president and charter member of the Alpha Chapter). A Sigma Delta Epsilon symposium on member research in the field of cancer and disease is planned for 27 December at 2:00 p.m. There will also be national council meetings and the grand chapter dinner and meeting. A headquarters room will be maintained throughout the meeting period, 26–30 December. Chairman of the committee on local arrangements is Madelyn Womack (USDA, Beltsville, Md.).

The 67th annual convention of the *Society of the Sigma Xi* (Thomas T. Holme, Society of the Sigma Xi, New Haven) will be held on the morning of 29 December preceding a luncheon. On the evening of 29 December, the Society will join with the *United Chapters of Phi Beta Kappa* (Carl Billman, Phi Beta Kappa, Washington, D.C.) in sponsoring their annual address with the AAAS. These distinguished lectures, of interest to all participants, have been a valued feature of the AAAS annual meeting from the inaugurations of the, at first separate, series in 1922 and in 1935, respectively.

The *Washington Academy of Sciences* (Ernest P. Gray, Applied Physics Laboratory, Silver Spring, Md.; and John Menkart, Harris Research Laboratories, Washington, D.C.) on the occasion of its 500th regular meeting, is sponsoring an invited address by the Nobel laureate British physicist, P. M. S. Blackett, president of the Royal Society. John K. Taylor, president of the Washington Academy, will preside. The Academy will cosponsor the AAAS Interdisciplinary Symposium, "Science in International Perspective," in which P. M. S. Blackett, Sir Lawrence Bragg, and Victor Weisskopf are participants.

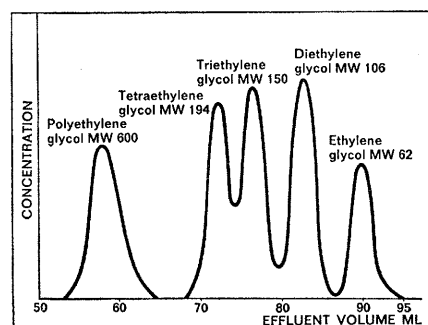
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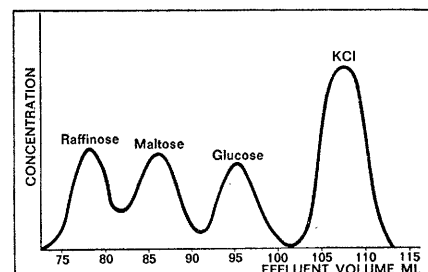


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