

## Seventh Cleveland Meeting

Preliminary announcement of programs for the 130th annual meeting; call for papers by AAAS sections.

Raymond L. Taylor

When the AAAS returns to Cleveland for its 130th annual meeting this coming December it will be returning to a historic and a key industrial center of the near midwest. The AAAS was only 5 years old when the first Cleveland meeting was held in July 1853—and that meeting had been postponed a year because of “. . . the prevalence of cholera along the approaches . . . from the south.” Now, some 110 years later, the Association is visiting a great metropolitan area of nearly 2,000,000 where it has a substantial local membership. Since then, Western Reserve University has expanded and developed impressively; Case Institute of Technology, founded in 1880, is one of the nation's great engineering schools; and John Carroll University and Fenn College have large enrollments. Ohio State University and many other academic institutions are within easy driving distance. In between the first and seventh Cleveland meetings were those of 1888, 1912, 1930, 1944, and 1950.

But it will be the programs that will bring five or six thousand scientists to Cleveland in December 1963 to join their colleagues who live there. The high quality of the special sessions, of the “Moving Frontiers of Science” lectures, and of the other sessions that are the responsibility of the Committee on Meetings will bring to Cleveland many of the 6893 scientists who were registered participants at last year's Philadelphia meeting, and others who wish they had been there. The care with which the Committee (under the chairmanship of David R. Goddard, University of Pennsylvania) is planning these sessions is evident from the program details already available.

All 20 sections of the Association

The author is associate administrative secretary of the AAAS.

and probably four AAAS committees will have programs. In many instances these will be multi-sessioned symposia two or more days in length.

### Japanese Science

An unusual and important event will be the three sessions, jointly sponsored by the Science Council of Japan and the Association as a whole, in which 17 eminent scientists from Japan will discuss the status of their disciplines in their country. All were chosen for their scientific competence rather than their fluency in English, and some may elect to speak in their own language. However, there will be simultaneous translation electronic equipment available and expert translators. The audience will be supplied with transistorized headsets.

The papers to be presented will be: “Recent development in experimental psychology” (Kinichi Yuki, Hokkaido University); “Development in Japan of the algebraic theory of numbers and allied topics” (Shokichi Iyanaga, Tokyo University); “Recent developments in structural chemistry in Japan” (Keniti Higashi, Research Institute of Applied Electricity, Hokkaido University); “Socio-ecological study on Japanese macaque” (Denzaburo Miyadi, Kyoto University); “Recent developments and future program in Japan of high energy physics” (Yoshio Yamagushi, Osaka Municipal University); “Research in ionosphere and outer atmosphere physics in Japan” (Kenichi Maeda, Kyoto University); “Theory of computer circuit and logical design” (Motinori Goto, Agency of International Science and Technology, Ministry of International Trade and Industry); “A contribution to the sprag technology”

(Yasusi Tanasawa, Tohoku University); “Earthquake engineering—especially on the nonlinear response of structures to strong earthquake and the method of seismic design” (Kiyoshi Muto, Institute of Solid State Physics, Tokyo University); “Statistical studies on nonlinear control systems” (Yoshikazu Sawaragi, Kyoto University; Narinobu Sugai, Kyoto University; Yoshifumi Sunahara, Engineering Research Institute, Kyoto); “Industrial microbiology in Japan” (Kinichiro Sakaguchi, Institute of Physical and Chemical Research, Tokyo); “Recent advances in physiological and pathological studies in the silk worm” (Tadao Yokoyama, Sericultural Experimental Station, Ministry of Agriculture and Forestry, Tokyo, and six others); “Studies on lowland rice in Japan—ecological studies on the yield of lowland rice with reference to its C components” (Yoshio Togari, Tokyo University); “Recent advances in the chemistry of plant components in Japan” (Tatsuo Kariyone, National Institute of Hygienic Sciences, Tokyo); “Studies on the experimental Vincent's infection—emphasizing role of *Neisseria septicaemiae*, new species” (Masao Onisi, Tokyo College of Medicine and Dentistry); “Recent developments in sociological studies in the modernization of Japanese society” (Kizaemon Ariga, Tokyo University of Education); “Origin of cultivated wheats in the light of recent genetic investigations” (Hitoshi Kihara, Kihara Institute of Biological Research, Yokohama, and Kosuke Yamashita, Kyoto University).

### Scope of the Meeting

Those 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 in the attendance—a reflection of the ever-increasing attractiveness of the programs. Many of the symposia are planned to be of particular assistance to college teachers.

The proceedings of 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,



Night view of downtown Cleveland.

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.

Of the societies that will hold national meetings with the AAAS, the American Society of Zoologists is the largest; it will have perhaps 45 sessions. Others are the American Nature Study Society, the American Society of Criminology, the American Society of Naturalists, Beta Beta Beta Biological Society, the Herpetologists' League, the National Association of Biology Teachers, the Scientific Research Society of America, Sigma Delta Epsilon Graduate Women's Scientific Fraternity, the Society for General Systems Research, the Society of Systematic Zoology, and the Society of the Sigma Xi.

Societies with special or regional programs, typically of several days' duration, will include the following: The American Association of Clinical Chemists, American Astronautical Society, American Meteorological Society, American Physiological Society, American Psychiatric Association, Association of American Geographers, Biometric Society ENAR, Ecological Society of America, National Council of Teachers of Mathematics, National Science Teachers Association, National Speleological Society, and The Institute of Management Sciences (TIMS).

Still other organizations will have conferences or programs—for example, Alpha Epsilon Delta National Premedical Honor Society, the American Eco-

nomic Association, American Sociological Association, American Statistical Association, American Political Science Association, Association for Computing Machinery, Society for Industrial and Applied Mathematics, and the Academy Conference, composed of representatives of the 47 state and city academies affiliated with the AAAS.

#### Special Sessions

The Committee on AAAS Meetings, responsible for the general pattern of the meeting and the general sessions, including the "Moving Frontiers of Science" program, in a joint meeting with the secretaries of the AAAS sections early this year, outlined a particularly attractive series of special sessions and general events. In chronological order, these are as follows:

*26 December, evening.* Part I of "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 seventh Cleveland meeting and to present recent developments in terms intelligible to scientists in other disciplines. All of the sections and many of the participating societies have left these lecture periods open in preparing their schedules.

A fundamental paper on this first evening of the meeting will be given by Andrew M. Gleason (professor of mathematics, Harvard University). His

topic will be "The nature and direction of current mathematical research." The other speaker of the evening will be Arthur L. Schawlow (professor of physics, Stanford University), who will discuss infrared optical masers. His talk will serve as a general introduction to an interdisciplinary symposium on the same subject.

*27 December, evening.* The AAAS Distinguished Lecture will be given by John Kenneth Galbraith, currently U.S. Ambassador to India, who will soon return to his post of Paul M. Warburg professor of economics, Harvard University. It is expected he will speak on the underdeveloped countries.

*28 December, morning.* Some five interdisciplinary symposia will be presented concurrently. The first of these, "The Uses of Lasers and Masers," is being arranged by R. J. Collins (Institute for Defense Analyses, Washington, D.C.). Another interdisciplinary symposium partly in the physical sciences, jointly sponsored by the sections on History and Philosophy of Science (L) and Astronomy (D) is "Philosophical Aspects of Present-day Cosmogony and Cosmology," arranged by Adolf Grünbaum (University of Pittsburgh). Three papers will be "The analysis of observations in cosmology" by G. C. McVittie (University of Illinois), "Observations in cosmology" by O. Heckmann (University of Hamburg), and "The origin of inertia and the nature of relativity" by J. A. Wheeler (Princeton University).

The interdisciplinary symposium in the biological-medical disciplines, "Developmental Aspects of Immunity," arranged by David W. Bishop (Carnegie Institution of Washington, Baltimore) and Jonathan W. Uhr (New York University School of Medicine) is complete. Speakers and their papers are: Introduction by James D. Ebert (Carnegie Institution of Washington, Baltimore), who will preside; "Sequential nature of the immune response," Jonathan W. Uhr; "The relationship of the thymus to the development of immunologic responsiveness," J. F. A. P. Miller (Chester Beatty Institute, London); "Phylogeny of the immune response," Robert A. Good (University of Minnesota Medical School); and "Ontogeny of the immune response," Arthur Silverstein (Armed Forces Institute of Pathology, Washington, D.C.).

The fourth interdisciplinary symposium, "Biological and Sociological Research on the Effects of Human Reproduction Control," being arranged by Ithiel de Sola Pool (Massachusetts Institute of Technology) and Kingsley Davis (University of California), is in process of development. Speakers will include an economist, a demographer, a geneticist, Davis, and a medical scientist.

The most general interdisciplinary symposium will be "The Federal Government, Science, and the Universities," arranged by John T. Wilson (University of Chicago) who will preside. Speakers are: A. Hunter Dupree (University of California, Berkeley), Delphis C. Goldberg (professional staff member, U.S. House of Representatives), William D. Carey (Bureau of the Budget, Washington, D.C.), and Paul M. Gross (Duke University).

**28 December, afternoon.** Part II of "Moving Frontiers of Science." There will be two lectures; one will be given by Vincent G. Dethier (University of Pennsylvania) on "The biology of behavior."

**28 December, evening.** Address of the retiring president of the AAAS, Paul M. Gross. Preceding the address, there will be a brief word of welcome by Charles E. Spahr, president, Standard Oil Company of Ohio, general chairman of the seventh Cleveland meeting. Announcements will be made of two awards—the Newcomb Cleveland prize for 1962 and the Socio-Psychological prize. A reception for all registrants will follow, with refreshments and cigarettes provided. Alco-



Cleveland Museum of Art is located in the heart of University Circle, Cleveland's cultural center, and includes collections representative of the art of all ages and nations.

holic beverages will be served at a "Dutch treat" bar.

**29 December, evening.** Honor Societies Night. The annual joint address of the Society of the Sigma Xi and of the United Chapters of Phi Beta Kappa will be given by Paul B. Sears (Yale University), president of the AAAS in 1956.

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

Details of the Fourth George Sarton Memorial Lecture are still to be settled.

#### Other General Events

The *AAAS Committee on Science in the Promotion of Human Welfare* (Barry Commoner, Washington University) will arrange several sessions, one of them a Report of the Air Conservation Commission.

The *AAAS Cooperative Committee on the Teaching of Science and Mathematics* (John R. Mayor, AAAS) plans to sponsor a session which would include reports on the various college commissions on teaching science with speakers from the following: Commission on College Physics; Council on College Chemistry; Commission on Undergraduate Education in the Biological Sciences; and Commission on

Improvement of Instruction in Engineering.

The Science Organization and Management Program, Office of Economic and Statistical Studies of the National Science Foundation, will sponsor two important symposia, "Planning and Administration of Science Research Programs" and "The Nontechnical Aspects of Instrumentation and Equipment in Research and Development," both arranged by Zola Bronson.

The *AAAS Committee on Desert and Arid Zones Research* (W. G. McGinnies, Laboratory of Tree-Ring Research, University of Arizona) on 27 December will have a two-session symposium on "Arid Lands of Latin America: Their Problems and Approaches Towards Solution."

The *Academy Conference*, founded in 1927 and composed of the official representatives of the 47 academies of science affiliated with the AAAS, has had a program at each annual meeting of the Association since 1928. This year's 35th meeting of the conference will begin with a session on junior academies (26 Dec.).

There will be a full day of sessions on 27 December. At the business meeting in the morning, reports of the individual academies will be distributed rather than read, to provide more time for individual comments and for a general discussion of academy prob-

lems. The afternoon program will be arranged by E. Ruffin Jones (University of Florida). The day will conclude with the annual Academy Conference Dinner and the conference presidential address by Gerald Acker (Bowling Green State University) with E. Ruffin Jones presiding.

The Academy Conference also will sponsor the 18th Annual Junior Scientists Assembly, a program for selected high school students interested in science and scientific careers. It will be arranged this year by Alfred G. Linscheid of Cleveland.

### AAAS Council Meetings

As usual, the AAAS Council will hold two sessions—at 4 P.M. on 27 December and at 9 A.M. on 30 December. Because election of the AAAS president-elect and of new members of the Board of Directors is conducted by mail, with results simply announced at the first session, more time is available at these sessions 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 significance of the seventh Cleveland 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 Hall of the Sheraton-Cleveland Hotel have been received at a most gratifying rate. At this time, 7 months in advance of the meeting, only a few booths remain to be assigned.

This year's Annual Exposition of Science and Industry will be one of the most attractive ever presented. Leading publishers, optical companies, and 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 some of the research activities of large industrial firms and exhibits of governmental agencies.

Incidentally, the Exposition 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 of science. (To meet the interests of the latter, the Association's Academy Con-

ference 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 Cleveland, the instructive exhibits of the Museum of Natural History are recommended.) In the best interests of exhibitors and those interested in their displays, *only registrants are admitted to the exposition*. With very rare exceptions, young people under 16 are neither registered nor admitted.

### Science Theatre

The AAAS Science Theatre, a regular feature of the Association's annual meeting, again will show a choice selection of science films, foreign and domestic; these will be shown in a special room just off 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.

### Physical Facilities

Despite its size, the meeting will be reasonably convenient, comfortable, and inexpensive. The hotels which will house a majority of the approximately 300 sessions are close together in the downtown area. They are the Sheraton-Cleveland, Statler-Hilton, Manger, Pick-Carter, and Auditorium. All of these hotels are within easy walking distance of one another.

The Sheraton-Cleveland will be AAAS headquarters. It has 1000 guest rooms and is most conveniently located on the Public Square. All bus lines, which have frequent service, converge at the Square. Similarly, all lines of the city's "Rapid" bring people from Shaker Heights and other outlying localities to the Terminal Tower adjacent to this hotel. With its new excellent exhibit facilities on the mezzanine level (connected with the main lobby by an escalator) and its good range of well-equipped session rooms, the Sheraton-Cleveland was the logical choice as the site of the Association's business sessions, Pressroom, and Office. The Annual Exposition of Science and Industry and the AAAS Science Theatre will be housed in the Exhibit Hall, while the special sessions and most of the general events will be held in the new grand ballroom immediately adjacent. The 3-level garage, 500-car capacity,

with inside free parking for registered guests, is just below the exhibit area and new ballroom.

The other hotels will be the headquarters of related sections and societies. Principal among these are the Statler-Hilton (1000 rooms), Euclid Avenue at East 12th Street; Manger (450 rooms), East 13th and Chester Streets; Pick-Carter (600 rooms), 1012 Prospect Avenue; and Auditorium Hotel (300 rooms), St. Clair Avenue.

Special low flat rates have been established at two levels, as follows. Sheraton-Cleveland and Statler-Hilton, room with single bed, \$8.50; double room, \$14.00; with twin beds, \$15.50; Manger and Pick-Carter, room with single bed, \$7.50; double room, \$13.00; room with twin beds, \$14.50.

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 registration 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 Cleveland *after the announcement appears*.) As usual, advance registrants will receive the *General Program* early in December.

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

### Mathematics (A)

The program of Section A (Wallace Givens, Argonne National Laboratory), concentrated on 30 December, includes the vice-presidential address by Magnus R. Hestenes (University of California, Los Angeles), and cosponsorship of the following sessions. *Association for Computing Machinery:* A symposium, "The Relationship of Education and Research in the Computer Sciences to Science as a Whole," arranged by John W. Carr III (University of North Carolina). *Society for Industrial and Applied Mathematics:* A symposium on "The Theory and Practice of Communications Mathematics," arranged by John W. Cell (North Carolina State College).

The program of the *National Council of Teachers of Mathematics* (Carl E. Clements, Senior High School, Euclid, Ohio) is scheduled for the afternoon of 27 December.



## Physics (B)

Section B (Stanley S. Ballard, University of Florida), will have, it is expected, a joint symposium of interest to physicists and astronomers and, if possible, an additional program on Japanese scientific activities, especially cosmic rays.

The annual physicists' luncheon will be jointly sponsored by Section B and *Sigma Pi Sigma*.

*The American Astronautical Society* will have a two-session symposium on bioastronautics (30 Dec.) arranged by Bruce W. Pinc (Space Defense Corporation, Birmingham, Mich.).

*The American Meteorological Society* is planning two sessions on meteorology of the Great Lakes with Tetsuya Fujita (University of Chicago) as program chairman. These sessions will be held 27 December.

## Chemistry (C)

The program of Section C (Irving L. Mador, U.S.I. Division, National Distillers & Chemical Corporation) consists of two two-session symposia. The first of these, "Chemistry of Radical-Ions" (27 Dec.), will be arranged by Mador;

the second, "Chemistry of the Excited State" (30 Dec.), will be arranged by H. H. Jaffe (University of Cincinnati). For this symposium, George Porter is coming from the University of Sheffield, England, in order to be the keynote speaker.

Details of the program of the *American Association of Clinical Chemists* (Robert L. Dryer, University Hospitals, Iowa State University of Science and Technology, Ames), for its annual regional meeting with the AAAS, are not yet available. The meeting, however, will probably take place on 26 and 27 December.

## Astronomy (D)

Section D (Frank Bradshaw Wood, University of Pennsylvania) will co-sponsor the symposium of joint interest to astronomers and physicists which the section on Physics will arrange and the interdisciplinary symposium, "Philomogony and Cosmology."

The retiring vice-presidential address of Frank K. Edmondson (Goethe Link Observatory, Indiana University, Bloomington), with Paul Herget (Cincinnati Observatory) presiding, will be of popular interest.

## Geology and Geography (E)

The five-day program of Section E (Richard H. Mahard, Denison University) (afternoon of 26 Dec.) begins with contributed papers in geology and includes a two-session symposium on "Ohio Petroleum Geology" and a second on "Polar Studies" (27 Dec.); the Section E committee meeting is on 28 December; a symposium on the St. Lawrence Seaway, a session for contributed papers in geography, and the Section E dinner and retiring vice-presidential address of Guy-Harold Smith (Ohio State University) take place on 29 December; two more sessions for contributed papers on geography are scheduled for 30 December. The geographical portion of the program is sponsored by the East Lakes Division of the *Association of American Geographers*.

*The National Speleological Society* (Brother G. Nicholas, LaSalle College, Philadelphia, Pa.) will probably have two sessions, one on cave biology and the other on cave geology.

*The National Geographic Society* will present its annual lecture and film (30 Dec.). It is hoped that the *Northern Ohio Geological Society* will participate in strength.



Cleveland's lakefront, showing port facilities, the Burke Lakefront Airport, and the Cleveland Municipal Stadium.

## Zoological Sciences (F)

The program of Section F (David W. Bishop, Carnegie Institution of Washington, Baltimore, Md.) will be coordinated with the national meetings of the American Society of Zoologists, the Herpetologists' League, and the Society of Systematic Zoology. In view of the many sessions of these societies, Section F's program will be restricted to arranging the interdisciplinary symposium, "Developmental Aspects of Immunity," the cosponsorship of appropriate symposia and other sessions, and joint sponsorship of the Biologists' Smoker (27 Dec.), the Zoologists' dinner (29 Dec.), and the vice-presidential address of Dietrich Bodenstein (University of Virginia). The business meeting of the section will immediately precede that of the American Society of Zoologists. Section F will cosponsor the symposia of the zoological societies meeting with the Association.

The tentative program of the national meeting of the *American Society of Zoologists* (A. Glenn Richards, University of Minnesota), with some 40 sessions (28-30 Dec.), includes 25 or more sessions for contributed papers, sponsored by all six divisions of the Society, to be held throughout the meeting period; business meetings of the divisions; the annual business meeting of the Society as a whole; and a series of symposia. The subjects and speakers of all symposia have not yet been announced but, tentatively, there will be a three-session refresher course on the genetics of behavior, arranged by Ernst W. Caspari (University of Rochester) (27 Dec.); a three-session symposium, "Osmoregulation in Animals," arranged by Ralph I. Smith (University of California, Berkeley) (28-29 Dec.); a symposium, "The Evolution of External Constructions by Animals," arranged by Nicholas E. Collias (University of California, Los Angeles) (28 Dec.); a symposium, "The Behavior of Arachnids," arranged by C. J. Goodnight (Purdue University) (29 Dec.); a symposium, "Ultrastructure in Invertebrates," arranged by Charles F. Lytle (Vienna, Virginia) (29 Dec.); a two-session symposium, "The Endocrinology of Nonarthropod Invertebrates," arranged by Howard A. Bern (University of California, Berkeley) (30 Dec.); and a symposium on "Vertebrate Morphology" (30 Dec.).

The *Herpetologists' League* (Wade Fox, Jr., Louisiana State University

School of Medicine) plans two sessions for contributed papers and a business meeting (27-29 Dec.).

The *Society of Systematic Zoology* (Jerome G. Rozen, Jr., American Museum of Natural History, New York City) will hold its 15th annual meeting with the AAAS. The program probably will include a symposium of one or more sessions of contributed papers; two Council meetings; and the annual breakfast and business meeting (30 Dec.). There will be a coffee hour in the Society's book lounge (29 Dec.). The annual SSZ library and book lounge for all zoologists will be open from 27 to 30 December.

## Biological Sciences (FG)

The program of the annual national meeting of the *American Society of Naturalists* (William K. Baker, University of Chicago) probably will include a symposium, the presidential address of R. Alexander Brink (University of Wisconsin) (28 Dec.), and the business meeting of the society which will follow it.

The biennial meeting of *Beta Beta Beta Biological Society* (Mrs. Frank G. Brooks, Box 515, Ansonia Station, New York 23, N.Y.) will be held the morning of 28 December; it will be followed by the biennial luncheon and an address by John M. Allen (University of Michigan).

The program of the *Biomedical Information-Processing Organization* (Robert S. Ledley, National Biomedical Research Foundation) will be on existing and proposed computer programs to aid biology and medicine.

The annual meeting of the *Ecological Society of America* (Robert B. Platt, Emory University), with the AAAS, will include several symposia (one of them on "Trends of Research in Great Lakes Ecology"); sessions for contributed papers on plant, animal, and aquatic ecology; and a series of sessions jointly sponsored by the Section on Animal Behavior and Sociobiology and by the Division of Animal Behavior and Sociobiology of the American Society of Zoologists.

*Mountain Lake Biological Station "Alumni"* again will sponsor an annual breakfast with the AAAS for all persons who have ever been students, investigators, or staff members at the station.

Sections F and G will cosponsor a Biologists' Smoker (27 Dec.) from 9:30 till 11 P.M. at the Sheraton-Cleveland.

## Botanical Sciences (G)

Section G (Harriet B. Creighton, Wellesley) will continue its series of symposia sessions, "Plant Biology Today: Advances and Challenges." There will be two sessions of invited papers on basic topics for biology teachers to keep them informed on recent advances (29 Dec.). Between these sessions there will be a luncheon for all botanists at which A. J. Sharp (University of Tennessee) will deliver his vice-presidential address. There will also be two or more sessions for contributed papers (26 Dec.).

## Anthropology (H)

The comprehensive program of Section H (Eleanor Leacock, Bank Street College of Education, New York) will include cosponsorship of Section Nd's symposium on the "Growth and Development of the Face, Teeth and Jaws," arranged by Stanley M. Garn (Fels Research Institute); a series of symposia; the vice-presidential address of David Barreis (University of Wisconsin); and one or more sessions for contributed papers. Roger W. Westcott (Southern Connecticut State College, New Haven) is organizing a session on "Problems of Communications Research," to be held the morning of 27 December with papers dealing with nonverbal methods of communicative code. That afternoon will be devoted to a session for contributed papers. Anthony Leeds (Pan American Union) is planning an all day symposium on "Rates and Units in Cultural Evolution" oriented toward developing more rigorous methods for analysing culture change (29 Dec.). George A. Agogino (Baylor University) is arranging a three-session symposium on "Dating of Pre-Ceramic Cultures of the Americas" which will run all day 29 December and the morning of 30 December. The papers will include reports of discoveries from a number of specific sites, as well as panel discussions on general problems of typology, terminology, and chronology in dating early man in the New World. The final half hour will be used for open floor discussion with Richard Wheeler (Mesa Verde National Park) acting as moderator.

A program committee (Eva D. Wilson, Ohio State University; Margaret Lantis, U.S. Public Health Service, Washington, D.C.; and Ethel Alperfels, New York University) of the *Ameri-*



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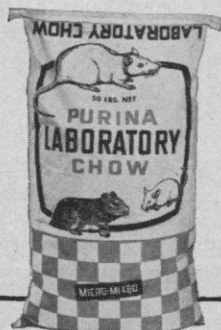
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can Anthropological Association and the American Dietetic Association is considering a joint program on "Cultural Influence on the Diet" of interest to anthropologists and psychologists, probably the morning of 28 December.

### Psychology (I)

The primary program of Section I (Frank W. Finger, University of Virginia) will consist of four symposia and the vice-presidential address. Ledyard R. Tucker (University of Illinois) has arranged a symposium for 29 December on "Investigation of Experimental Psychological Problems by Multivariate Techniques." Participants will include R. Darrell Bock (University of North Carolina), "Behavioral applications of multivariate analysis of variance"; Maurice Lev (Northwestern University and University of Chicago) and H. J. A. Rimoldi (Loyola University, Chicago), "Application of multivariate analysis to the study of pathology of the heart"; J. E. Keith Smith (Massachusetts Institute of Technology), "Multidimensional analysis of similarity."

On the same day will be held a session on "Learning Research Related to Educational Improvement," arranged by Lee J. Cronbach (University of Illinois); the vice-presidential address by Lloyd Humphreys (University of Illinois) which is entitled "Problems posed to experimental psychology by the evidence for trait instability."

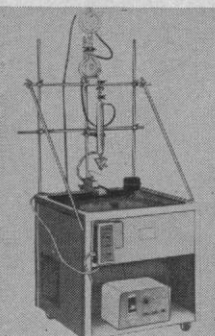
Topics for the symposia on 30 December are "The Development of Visual Perception in Children" arranged by Herschel Leibowitz (Pennsylvania State University) and "Engineering Psychology: Contributions of an Infant Science" arranged by Lowell Schipper (Pennsylvania State University).

### Social and Economic Sciences (K)

Section K (Ithiel de Sola Pool, Massachusetts Institute of Technology) has the responsibility this year of arranging the interdisciplinary symposium, "Biological and Sociological Research on the Effects of Human Reproduction Control," for the morning of 28 December. The vice-presidential address of Kingsley Davis (University of California, Berkeley) is expected to be one of the papers of this program. The

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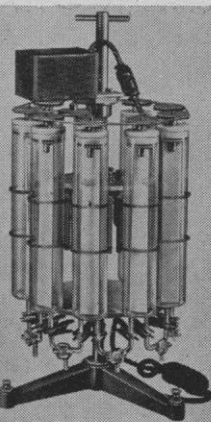
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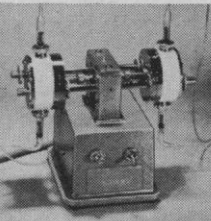


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section may also arrange one or two specialized sessions.

The *American Economic Association* (Bert F. Hoselitz, University of Chicago) will have a program of invited papers, cosponsored by Section K, on "The Economics of Medicine." This is scheduled early in the meeting (26 Dec.) so that AEA members may attend both the AAAS meeting and their own national meeting, to be held in Boston, Mass., from 27 to 29 December.

The *American Political Science Association* (Evron M. Kirkpatrick, APSA), it is anticipated, will have its customary special program (27 Dec.) cosponsored by Section K.

The national meeting of the *American Society of Criminology* (Donal E. J. MacNamara, New York Institute of Criminology), which has as its general theme "Quo Vadis in Criminology?", will open on 29 December with a session on "Experimental programs in crime control and crime prevention" and one on "Analysis and evaluation of delinquency prediction devices." Other sessions (30 Dec.) will be on "Improving the administration of criminal justice" and a "Seminar: university curricula in criminology and corrections." The annual awards and memorial session of the Society will be held on the evening of 29 December; the presentation will be preceded by the annual business meeting.

The *American Sociological Association* (Janice H. Hopper, American Sociological Association, New York) will have two symposia (29 Dec.), cosponsored by Section K.

Details of the programs of the *Metric Association* (Robert P. Fischelis, Washington, D.C.) are not yet available.

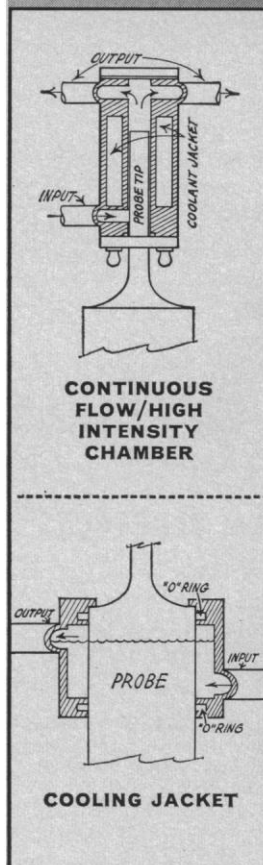
### History and Philosophy of Science (L)

Details of the program of Section L (Norwood Russell Hanson, Indiana University; Adolf Grünbaum, University of Pittsburgh) are incomplete, but there will be five or six sessions in the two areas of interest of its members. In addition to "Philosophical Aspects of Present-day Cosmogony and Cosmology," discussed under *General Sessions*, there will be symposia and papers as follows: "The Relation of Physics to the New Biology"; W. M. Elsasser (Princeton University), "The natural philosophy of automation," "The Analytic-Synthetic Distinction in its Bearing on the Philosophy of Mathe-

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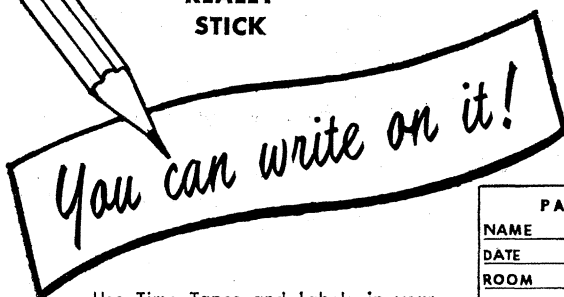
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The ninth annual meeting of the *Society for General Systems Research* (Milton D. Rubin, Mitre Corporation) will have a session for contributed papers and a session for invited papers on "General Systems and the Two Cultures." (27 Dec.).

The plans of the *Philosophy of Science Association* (Lewis K. Zerby, Michigan State University) are not yet available.

### Engineering (M)

The program of Section M (L. K. Wheelock, Engineers Joint Council) is still in a planning stage.

### Medical Sciences (N)

The annual program of *Alpha Epsilon Delta* (Maurice L. Moore, national secretary) on career opportunities in medicine and dentistry will consist of a luncheon and address and a tour of local medical facilities.

As in previous years, Section N will have a four-session symposium (29-30 Dec.) with participants from all parts of the country. This year's subject is chemical suppression of cellular synthesis and mitosis and is being organized by Francis D. Moore (Harvard University) and Oscar Touster (Vanderbilt University). George Hitchings (Burroughs Wellcome Research Laboratory, Tuckahoe, N.Y.), Arnold D. Welch (Yale University), and Rupert E. Billingham (Wistar Institute of Anatomy) are collaborating in the program planning. The papers will deal with the regulation of DNA action, inhibition of nucleic acid production, cancer chemotherapy, and immuno-suppression in transplantation. Francis D. Moore will give the vice-presidential address. Sec-

tion N will also cosponsor the AAAS interdisciplinary symposium on developmental aspects of immunity as well as other appropriate programs.

The *American Physiological Society* and the Bioscience Programs of the Office of Space Sciences of the National Aeronautics and Space Administration will jointly sponsor a symposium on space biology and medicine. Coordinators are Robert E. Smith (UCLA Medical Center), and Orr E. Reynolds (director of Bioscience Programs, NASA).

Details of the annual symposium at the AAAS meeting sponsored by the *American Psychiatric Association Committee on Research* (Milton Greenblatt, Massachusetts Mental Health Center and Harvard Medical School) are not yet available.

#### Dentistry (Nd)

Section Nd (Seymour J. Kreshover, National Institute of Dental Research) will have a three-session symposium "Growth and Development of the Face, Teeth, and Jaws," arranged by Stanley M. Garn (Fels Research Institute), 26-27 December. The symposium will be cosponsored by the AAAS section on Anthropology (H), the American Dental Association; the International Association for Dental Research, North American Division; and the American College of Dentists.

The program will cover the determinants of dental and facial growth, including the genetic determinants, endocrine determinants, nutrition determinants, and abnormal determinants of growth and size. An attempt will be made, then, to consider normal variation in the development of the teeth and the supporting structures and the face as a whole. The speakers will represent a broad range of backgrounds being drawn from experimental pathology, radiology, genetics, enzymology, nutrition, and primate research, and in this way it is expected that the growth of the teeth and jaws will be put in broad perspective. Speakers and their papers are: Opening remarks and welcome by Paul E. Boyle (Western Reserve University; vice president of Section Nd) with B. Holly Broadbent (Western Reserve University) presiding; Introduction to the symposium, Stanley M. Garn (Fels Research Institute); "Evolutionary background of dental and facial growth," Albert A. Dahlberg (Zoller Memorial Dental Clinic, Uni-

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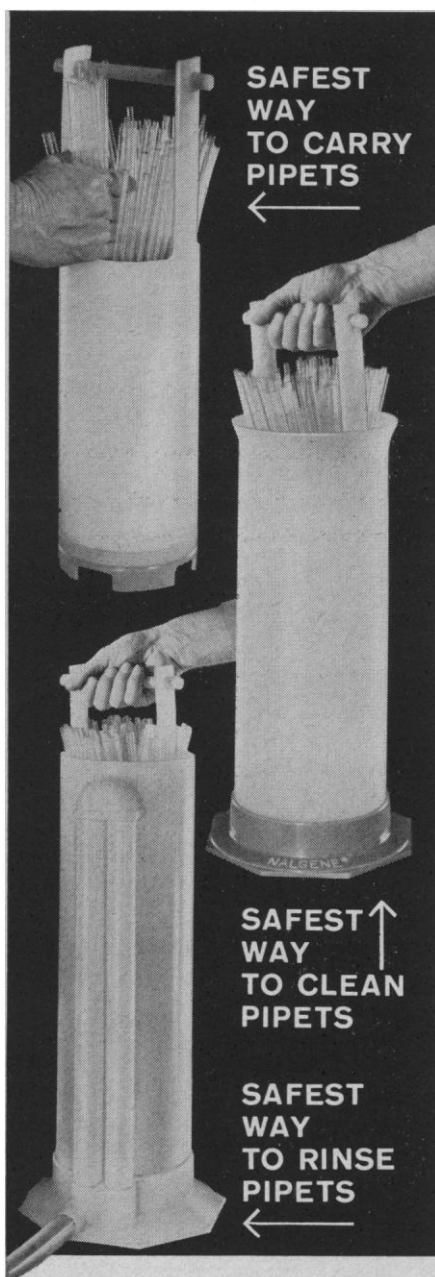
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versity of Chicago); "Normal variations in dental facial growth," Coenraad F. A. Moorrees (Forsyth Dental Infirmary for Children, Boston, Mass.); "Genetic parameters of dental facial growth," Richard Osborne (Sloan-Kettering Institute for Cancer Research). Carl J. Witkop (National Institute of Dental Research) will preside at the second session scheduled for the afternoon of 26 December. Speakers and their papers are: "Prenatal factors and their evaluation," Uwe Stave (Fels Research Institute); "Dental and facial growth in chromosomal abnormalities," M. Michael Cohen (School of Dental Medicine, Tufts University); "Growth of the face in developmental defects," Frederic N. Silverman (Children's Hospital Research Foundation, Cincinnati); "Genetics of tooth formation," Stanley M. Garn and Arthur Lewis (Fels Research Institute). A third session with Seymour J. Kreshover presiding is scheduled for the morning of 27 December. Speakers and papers are: "Endocrine factors in tooth formation," Stanley M. Garn, and Arthur Lewis (Fels Research Institute) and Robert Blizzard (School of Medicine, Johns Hopkins University); "Nutritional modification of dental development," Lawrence R. Fess (School of Public Health, Tulane University); "Genetic carrier of dento-facial disease," Robert J. Gorlin (School of Dentistry, University of Minnesota); "Primate odontogenesis," Daris R. Schwindler (Medical College of South Carolina); Summary and concluding remarks, Stanley M. Garn. A fourth session on another general educational subject will complete the Section's program.

#### Pharmaceutical Sciences (Np)

The program of Section Np (Joseph P. Buckley, University of Pittsburgh) is expected to include sessions for contributed papers in hospital pharmacy, other sessions for contributed papers, and a symposium. There will be a section luncheon with the vice-presidential address by Don E. Francke (American Society of Hospital Pharmacists) and a dinner.

Section Np's entire program 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*.

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## Agriculture (O)

Section O (A. H. Moseman, Rockefeller Foundation) will have a four-session symposium on "Agricultural Sciences for Newly Developing Nations." The sequence of topics is: (i) Characteristics of agricultural systems in emerging nations; (ii) Research to devise and adapt innovations; (iii) Education and development of human resources; and (iv) Establishing indigenous institutions to serve advancing agriculture. It is hoped that the review of agricultural science in advancing nations will be of broad interest to scientists and educators at the universities, government agencies, and private organizations that have participated in such programs during the past decade or more.

## Industrial Science (P)

Section P (Allen T. Bonnell, Drexel Institute) will have its annual symposium of particular interest to executives in industry. Past vice president Henry F. Dever (Minneapolis-Honeywell Regulator Company) will give the vice-presidential address at the annual luncheon. The Section will also confer the 1963 Industrial Award and cosponsor appropriate programs. The program of *The Institute of Management Sciences* (Burton V. Dean, Case Institute of Technology) is yet to be arranged.

## Education (Q)

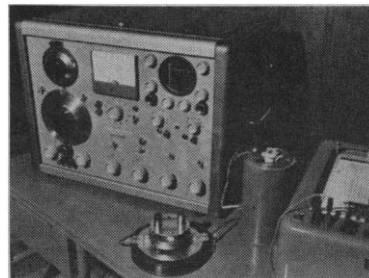
The program of Section Q (Herbert A. Smith, Pennsylvania State University) includes two joint sessions with the *Council for Exceptional Children* (26-27 Dec.); two joint sessions with the *American Educational Research Association* (30 Dec.); three or more sessions for contributed papers (29-30 Dec.); a business meeting (28 Dec.); and the vice-presidential address of Harold E. Wise (University of Nebraska) (29 Dec.).

The four science teaching societies—ANSS, NABT, NARST, and NSTA—that regularly meet with the AAAS may be joined by a fifth, the Central Association of Science and Mathematics Teachers (CASMT). (The coordinator is Paul Loos, Bedford, Ohio.) There will be a joint session arranged by Ted Andrews (State Teachers College, Emporia, Kansas) (27 Dec.), three joint film sessions (27-29 Dec.) and a series of concurrent sessions similar to the

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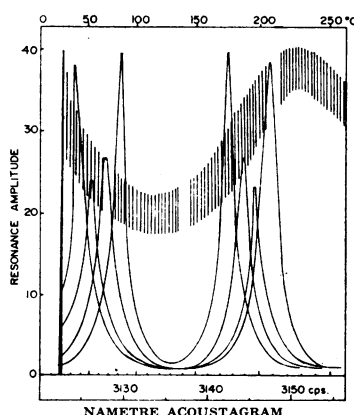


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coordinated programs of recent years. A joint coffee hour and mixer will be held 27 December.

The national annual meeting of the *American Nature Study Society* (John W. Brainerd, Springfield College) will begin with the joint session of all science teaching societies (27 Dec.) followed by a session on observing nature. On 28 December there will be a symposium "Recording Nature: Sketching" and a session on nature photography. On 29 December there will be a two-session symposium, "Ohio Landscapes." The joint field trip with the National Association of Biology Teachers will be with the "Swamp Stompers" (30 Dec.).

The ANSS will sponsor a luncheon (28 Dec.) since the NABT will have a Silver Jubilee Banquet (29 Dec.).

The annual national meeting of the *National Association of Biology Teachers* (Ted F. Andrews, State Teachers College, Emporia, Kan.) this year will be its Silver Anniversary Celebration. The program will begin with a series of committee meetings on 26 December. There will be a second joint session of the science teaching societies and a concurrent symposium "Recent Developments in Cellular Biology" the afternoon of 27 December. On 28 December, concurrent with the morning business meeting and an afternoon tour, will be sessions on "Recent Developments in Organismal Biology" and "Recent Developments in Ecosystem Biology," respectively. The Silver Jubilee Program in the morning of 29 December has concurrent sessions on teaching biology and research activities in high schools; in the afternoon, the program deals with collegiate curricula for biology teachers.

The *National Science Teachers Association* (Robert H. Carleton, NSTA, Washington, D.C.), besides arranging three early morning film programs (27-29 Dec.), will have concurrent sessions on the afternoon of 27 December and a third session in the morning of 28 December.

*Science Service* (Leslie V. Watkins, Science Service) will sponsor a session on the interrelation of science youth activities (30 Dec.).

#### Information and Communication (T)

Section T's program (Phyllis V. Parkins, *Biological Abstracts*) will be somewhat diversified in its approach to problems of science information and communication. A one-day session, co-

sponsored by the American Society for Metals, with Marjorie R. Hyslop, Frank Foote, and Donald McCutcheon as co-chairmen, is planned around the general topic "Control of metallurgical information and its interaction with other disciplines."

Correlated with this program, a visit to the Computer Center to view the American Society for Metals project will be arranged. Other programs, jointly sponsored by Section T and two affiliated societies, the National Association of Science Writers and the Society of Technical Writers and Publishers, are in the planning stage.

A luncheon featuring an outstanding

speaker, a general business meeting for considering future policies and programs, and the vice-presidential address by Foster E. Mohrhardt (U.S. Department of Agriculture Library, Washington, D.C.) will conclude Section T's program for 1963.

The regular annual meeting of the *National Association of Science Writers* (Donald Dunham, *Cleveland Press*) with the AAAS will include a business session and a dinner. A feature of the latter will be the fifth presentation of the new series of the AAAS-George Westinghouse Science Writing Awards for excellence in science writing in newspapers and magazines (27 Dec.).



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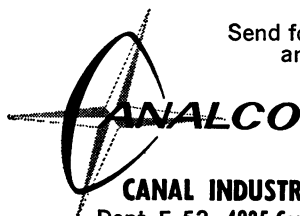
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### Statistics (U)

The program of Section U, Horace W. Norton (University of Illinois), chairman, will again consist largely of sessions prepared or cosponsored with other sections. The vice-presidential address will be given by Harold Hotelling (University of North Carolina); the proposed title is "Light on statistical teaching problems for recent mathematical research."

Sessions are being developed on statistical problems in geology, stochastic models in biology, multivariate methods in experimental psychology, and on problems of search and retrieval systems. Additional sessions are also planned for the presentation of results of recent significant statistical surveys. One on "Health statistics" will draw heavily on the findings of the National Health Survey. The other session will be built around a current study on how graduate students finance their education.

In addition, there will be a session for teachers of statistics and another session on new developments in applying statistics to novel domains of science. Morris B. Ullman, 7604 Cayuga Avenue, Bethesda, Md., is secretary for Section U.

The *American Statistical Association* will have a number of sessions sponsored jointly with Section U and perhaps others cosponsored by the Biometric Society and by Section K.

The *Biometric Society, Eastern North American Region* (T. A. Bancroft, Iowa State University of Science and Technology) is planning sessions but details are not yet available.

### 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, will constitute the "X" series in the printed *General Program*. In this preliminary synopsis, the programs of one of these—the Academy Conference—has already been mentioned, under "Other General Events."

The *American Geophysical Union* (Waldo Smith, AGU, Washington, D.C.) will cosponsor appropriate sessions.

The national convention of the *Scientific Research Society of America* (Donald B. Prentice, Yale University) is scheduled for 30 December. The

award of the William Procter prize and the annual RESA address will follow the luncheon, to be held jointly with the Society of the Sigma Xi.

The annual meeting of *Sigma Delta Epsilon*, graduate women's scientific fraternity (Ernestine Thurman, National Institutes of Health) will include a luncheon for all women in science with Agnes Hansen (University of Minnesota) as speaker, and the grand chapter dinner and meeting. A headquarters room will be maintained throughout the meeting period (26-29 Dec.).

The 64th annual convention of the *Society of the Sigma Xi* (Thomas T. Holme, Society of the Sigma Xi, New Haven) will be held on 30 December after the joint luncheon with RESA. In 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 an address by Paul B. Sears (Yale University). Since the inauguration of the series in 1922, these distinguished lectures of interest to all participants have been a valued feature of the Association meeting.

### Call for Papers by Sections

Five sections of the Association will arrange sessions for contributed papers at the Cleveland meeting. The secretaries or program chairmen 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

**G-BOTANICAL SCIENCES.** Harriet B. Creighton, Department of Botany and Bacteriology, Wellesley College, Wellesley 81, Mass.

**H-ANTHROPOLOGY.** Eleanor Leacock, Bank Street College of Education, 69 Bank Street, New York 14, N.Y.

**NP-PHARMACEUTICAL SCIENCES.** Joseph P. Buckley, School of Pharmacy, University of Pittsburgh, Pittsburgh, Pa.

**Q-EDUCATION.** Herbert A. Smith, Room 168 Chambers Building, Pennsylvania State University, University Park, Pa.

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