

as (p. 7): "Every crystal is found to fit into one of six systems, each of which is determined by the relations of its *three* axes," but in general the text is remarkably free from such minor incongruities.

The paleogeographic maps are well drawn, although the reproduction might be improved. Use of an overlay transparency, to emphasize the importance of crustal shortening in orogeny since the period to which the paleogeographic condition applied, is commendable, because students rarely make an adequate translation from the geography of the geologic past to the present. It is questionable, however, whether the scale of the overlay and maps will accomplish the desired objective. The presentation of life sequences is unusually interesting, but some will think too much paleontologic and stratigraphic nomenclature is included.

The text gives a well-rounded and adequate presentation which is skillfully woven to make interesting reading. The user will find the text satisfactory, and, where the introductory course is a single unit of both physical and historical geology, the book should be superior to others on the current market.

ROBERT W. WEBB

National Research Council, Washington, D. C.
and University of California
Santa Barbara

Scientific Book Register

Metabolic Interrelations: With Special Reference to Calcium. Transactions of the Fourth Conference, January 7-8, 1952, New York. Edward C. Reifstein, Jr., Ed. New York: Josiah Macy Jr. Fdn., 1952. 262 pp. Illus. \$4.50.

Introduction to Evolution. Paul Amos Moody. New York: Harper, 1953. 475 pp. Illus. \$6.00.

Wood Chemistry, Vol. 2. American Chemical Society Monograph #97. 2nd ed. Louis E. Wise and Edwin C. Jahn, Eds. New York: Reinhold, 1952. 652 pp. Illus. \$15.00.

Biochemistry of Disease (M. Bodansky and O. Bodansky). 2nd ed. Oscar Bodansky. New York: Macmillan, 1952. 1208 pp. Illus. \$12.00.

Demand Analysis: A Study in Econometrics. Herman Wold, in association with Lars Jurén. New York: Wiley; Stockholm: Almqvist & Wiksell, 1953. 358 pp. Illus. \$7.00.

Rayon Technology (Including Acetate): Handbook for Textile Mills. 2nd ed. Prepared by the Textile Research Department, American Viscose Corp. New York-London: McGraw-Hill, 1953. 344 pp. Illus. \$7.00.

Chemical Analysis of Industrial Solvents. Morris B. Jacobs and Leopold Scheffan. New York-London: Interscience, 1953. 501 pp. Illus. \$10.00.

Qualitative Analysis and Analytical Chemical Separations. Philip W. West, Maurice M. Vick, and Arthur L. LeRosen. New York: Macmillan, 1953. 223 pp. Illus. \$3.75.

Association Affairs

Preliminary Announcement Seventh Boston Meeting

December 26-31, 1953

Raymond L. Taylor, Associate Administrative Secretary

FROM the programs and other events already arranged, it is apparent that the 120th Meeting of the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE will be particularly well balanced, well attended, and significant—one of the best meetings in the long annals of the Association. At this time the Association, soon to enter its 106th year, with 238 affiliates and 50,000 individual members, is on the threshold of careful studies to see how its services to science, to scientific organizations, to scientists, and to society may be improved and increased.

One of the fundamental purposes for which the Association was founded, in September, 1848, still endures: "... by periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of the United States ..." At Boston this December the annual meeting for the year 1953 once more will bring together leaders and younger men and women in the principal fields of science, not only to read papers reporting current research and to discuss their specialties, but also to

attend outstanding symposia and to consider some of the problems that affect science and the world today. This 120th Meeting has as its theme "Scientific Resources for Freedom," and a number of the 18 sections of the Association and participating societies will have programs devoted to physical resources, scientific manpower, and scientific techniques—men, materials, and methods—related to the national economy, security, and welfare.

Although this year's 120th Meeting is typical of AAAS meetings in the past—with national meetings of large societies, interdisciplinary sectional symposia, sessions for contributed papers arranged by many of the sections, distinguished evening addresses, a large-scale Exposition of Science and Industry, and a showing of the latest foreign and domestic scientific films—there is a growing trend toward recurrent conferences in which many scientists, irrespective of their specialties, will be interested. At Boston, in addition to the Academy Conference, representing the 40 academies of science now affiliated with the Association, the Conference on Scientific Editorial Problems II, and the Conference on Scientific Manpower III, there will be one or two sessions on "The Scientist in American Society" and two sessions on "Transmission of Ideas." For the first time in many years, a past president of the British Association for the Advancement of Sci-

ence, Dr. A. V. Hill, will be present and will address the American Association.

AAAS general symposia. The Association will sponsor two general symposia, each of two sessions, in accordance with the decisions of the 1953 Symposium Committee consisting of E. U. Condon, chairman; Frank A. Beach; Bart J. Bok; Charles D. Coryell; A. M. Gaudin; A. Baird Hastings; Jerome C. Hunsaker; James R. Killian, Jr.; Paul C. Mangelsdorf; Philip M. Morse; Alfred C. Redfield; Francis O. Schmitt; Earl P. Stevenson; George B. Wislocki; and Raymond L. Taylor, secretary.

On December 27, the general symposium, "Species Which Feed Mankind," suggested and planned by Paul C. Mangelsdorf will deal with the scientific aspects of several of the critical species of plants and animals that comprise the basic food sources of man. Although the symposium will stress the most recent findings in genetics, plant pathology, and animal husbandry, it is important for all.

On December 29, the second general symposium, "The Sea Frontier," with Alfred C. Redfield and Jerome C. Hunsaker as co-chairmen, will bring together a number of the phenomena of the interface of land and salt water. Aspects included will be the geology of beaches, littoral oceanography, marine ecology, and interrelated engineering and industrial problems.

Focus of the meeting. The activities of the meeting period will center in downtown Boston in the Mechanics Building at 111 Huntington Avenue. Here will be located the Main Registration and Information Center (the only source for special booklets on Boston's points of interest and other literature), the Visible Directory of Registrants, the AAAS Office, the AAAS Science Theatre, and the Annual Exposition of Science and Industry. In the meeting rooms of the building will be held the general symposia and principal sectional programs and, from 8:30 to 11:30 P.M., December 29, the Biologists' Smoker. In nearby Copley Square, the geneticists will occupy the Sheraton Plaza Hotel, and other sessions will utilize auditoria in the Boston Public Library and in Boston University Junior College. Three blocks east of Copley Square, the zoological societies will be based at the Statler Hotel, and two blocks farther, the three science teaching societies will meet in the Hotel Bradford. In Horticultural Hall, three blocks in the opposite direction from Mechanics Building, there will be other sessions. Between the extremes in each direction, the distance is little more than one mile. In general, no one will be more than 5 to 10 minutes away from any other meeting point. Underground trolleys along Huntington Avenue and Boylston Street, with subway connections, will be convenient for those who wish to visit demonstrations or open houses at MIT and Harvard University.

Hotels. The Statler Hotel will be AAAS Headquarters and the locale of such evening events as the Association's Presidential Address, by Detlev W.

Bronk, and the AAAS Reception on December 28, and also the annual addresses of the Scientific Research Society of America, the Society of the Sigma Xi, and the United Chapters of Phi Beta Kappa, the dates of which will be announced. Sessions will be held in the Statler (zoologists), the Sheraton Plaza (geneticists), and in the Bradford Hotel (science teachers). Other hotels, to be used primarily for sleeping accommodations, are: the Touraine and Parker House in downtown Boston; the Copley Square, Lenox, and Vendome, near Mechanics Hall; and the Somerset and Kenmore on Commonwealth Avenue in the Back Bay area. Headquarters of each participating society will be given in a later announcement. Detailed housing information and a coupon for room reservations will appear in *SCIENCE* and *THE SCIENTIFIC MONTHLY* beginning about the end of July.

Advance registration. As in recent years, advance registrants will receive the General Program-Directory early in December by first-class mail. Coupons will appear in the AAAS journals beginning in late July.

THE PROGRAMS

A—Mathematics

Section A will schedule a vice-presidential address.

B—Physics

Section B will have two symposia; in addition, it will cosponsor with Section M "Transformations within Metallic Crystals" arranged by A. M. Gaudin, and the symposium of Section D; the retiring vice-presidential address, on a subject relating to the upper atmosphere, will be given by O. E. Hulburt. The *American Meteorological Society* will hold a national meeting with two or more sessions for papers.

C—Chemistry

Section C, with Randolph T. Major as program chairman, will have several sessions for contributed papers, principally on Dec. 27, and a six-session symposium "Feeding the Nation": I and II—Human and Animal Nutrition arranged by Robert S. Harris; III—Chemicals in Food, by Charles N. Frey; IV—Chemistry of the Sea as Related to Food Problems, by Harold J. Humm; V—Growth and Nutrition of Plants, by P. W. Zimmerman; VI—Recent Progress in Food Processing, by B. E. Proctor. Appropriate parts will be cosponsored by Sections Nm, G, and O. Dr. Major will give the vice-presidential address. *Alpha Chi Sigma* will schedule a Chemists' Luncheon.

D—Astronomy

Section D will have a comprehensive symposium and panel discussion on "Current Progress in Radio Astronomy" arranged by Bart J. Bok, and a vice-presidential address, "Identifications of Solar Lines," by Charlotte Moore Sitterly, the morning, afternoon, and evening of Dec. 26, in the Lecture Hall of the American Academy of Arts and Sciences.

E—Geology and Geography

Section E is scheduling a two-session symposium in geology and two one-session symposia in geography concurrently on Dec. 28; a two-session symposium,

"Water for Industry," on Dec. 29; and concurrent sessions for contributed papers in geology and geography, Dec. 30 and 31, with appropriate parts of the week's program cosponsored by the *Geological Society of America* and the New England Division, *Association of American Geographers*. The Geologists' Smoker and vice-presidential address by Arthur C. Trowbridge will be the evening of Dec. 30. The *National Speleological Society* will meet the afternoon of Dec. 26.

F—Zoological Sciences

The *American Society of Zoologists* will open four days of sessions Dec. 27 with a symposium, have four concurrent sessions the mornings and afternoons of Dec. 28 and 29, and a second symposium and demonstrations at Harvard on Dec. 30. The Zoologists' Dinner will be on the evening of Dec. 29; an illustrated address will be given by Paul Weiss, vice-president of Section F, which will cosponsor the American Society of Zoologists symposia. The *Herpetologists League* will meet the afternoon of Dec. 28. The recently incorporated *Massachusetts Zoological Society* will have sessions for papers. The *Society of Systematic Zoology* will open four days of meetings with a symposium the evening of Dec. 27, hold sessions for papers, and business meetings the other days.

FG—Zoological and Botanical Sciences

Among the societies whose fields lie in both botany and zoology, the *American Society of Naturalists* this year will hold its annual meeting with the Association with a business session, a symposium, and a presidential address. *Beta Beta Beta* will hold its biennial convention, with an address by Edmund W. Sinnott, executive sessions on Dec. 28, and a luncheon and afternoon session on Dec. 29. The *American Society of Human Genetics* has scheduled three morning sessions for papers, Dec. 28–30; a business meeting, Dec. 28; three afternoon symposia: "Human Genetics and Medical Education," Dec. 28, "Genetic Factors Affecting Intelligence," jointly with the *American Eugenics Society*, Dec. 29, and "Genetics and the Races of Man," cosponsored by the Genetics Society of America, Dec. 30. The annual dinner and presidential address of the society, by C. P. Oliver, will be on the evening of Dec. 29 at the Copley Square Hotel. The sessions of the annual meeting of the *Genetics Society of America* include meetings of the Executive Committee, Dec. 27 and 30; concurrent sessions for papers Dec. 28–30; a luncheon, business meeting, and demonstrations the afternoon of Dec. 29; and the joint symposium "Genetics and the Races of Man," with the American Society of Human Genetics. The *Ecological Society of America* will cosponsor appropriate sessions of Section G and of the American Society of Zoologists and may have a program of its own. The *Society for the Study of Evolution* will have a program at Boston, arranged by Alfred Romer, and it is expected that the *Society for Industrial Microbiology* will again have several days of sessions with the AAAS. The *National Association of Biology Teachers* will hold its annual meeting, Dec. 27–31 with the Association.

G—Botanical Sciences

Section G will have sessions for contributed papers, a number of symposia—including one of two sessions on "Native American Crop Plants and Climatic His-

tory in Relation to Man," arranged by Volney Jones and cosponsored by Section H, and one on plant physiology cosponsored by the New England Section of the *American Society of Plant Physiologists*—and a Botanists' Dinner at which Edgar Anderson will give the vice-presidential address.

H—Anthropology

Section H will have a two-session symposium on "Non-Human Primates and Human Evolution" arranged by James A. Gavan, Dec. 27; a symposium on "Theoretical Models for the Study of Cultural Process and Change" by Evon Z. Vogt; the joint symposium with Section G; a group of invited papers on "New England Archaeology" arranged by Douglas Byers, Dec. 29; and sessions for contributed papers, Dec. 29, in the fields of archaeology, social anthropology, etc. The Anthropologists' Dinner and vice-presidential address by Clyde Kluckhohn will be on the evening of Dec. 27.

I—Psychology

The program of Section I includes sessions for invited papers on the areas of learning, comparative behavior, brain function, human engineering, and sensory processes—arranged, respectively, by Fred D. Sheffield, Burton S. Rosner, Walter A. Rosenblith, Leonard C. Mead, and Edwin B. Newman—and for contributed papers, over the period Dec. 28–30. The vice-presidential address will be given on the evening of Dec. 30 by Frank A. Beach.

K—Social and Economic Sciences

Section K has planned two or three two-session symposia, including "Economic Problems of New England," Dec. 27, and "Effects of War on Scientific Development," Dec. 29. The *National Academy of Economics and Political Sciences* will have a symposium cosponsored by Section K and in collaboration with *Pi Gamma Mu*.

L—History and Philosophy of Science

The program of Section L includes a joint symposium, "Art and Science," with the Philosophy of Science Association, on the afternoon of Dec. 27; on Dec. 28 a symposium, "Criteria for Validity in Science" arranged by Philipp G. Frank, cosponsored by the *Institute for the Unity of Science*; and a joint symposium, "Science and General Education," with Section Q and the History of Science Society. The *History of Science Society*, holding its annual meeting with the AAAS, will have a day or two of contributed papers and other events and will cosponsor appropriate symposia of Section L. The *Philosophy of Science Association* will arrange a program for Dec. 30 and cosponsor the symposia of Section L.

M—Engineering

Section M will have a series of symposia: "Aids to the Blind," arranged by Eugene F. Murphy, cosponsored by Sections N and I; "Safety as a Natural Resource"; "The Boston Banks and the Growth Potential of New England" cosponsored by Section P; and the one on metallic crystals referred to under Section B.

N—Medical Sciences

Alpha Epsilon Delta National Premedical Honor Society will hold its annual luncheon Dec. 29. The *American Physiological Society* again will have a symposium under the auspices of the Survey of Physiological Science. The *American Association of Hospital Consultants* will sponsor a symposium on "The Research Function of the Hospital" arranged by E. M. Bluestone; speakers include Jack Masur, Dean A. Clark, and Harvey Agnew, and discussants.

Subsection Nd—Dentistry

Subsection Nd plans three sessions on Dec. 29 arranged by Howard R. Marjerison.

Subsection Nm—Medicine

Subsection Nm will sponsor a four-session symposium "Antimetabolites and Cancer" arranged by Cornelius P. Rhoads and Allan D. Bass, Dec. 28 and 29. The vice-presidential address will be given by Dr. Rhoads.

Subsection Np—Pharmacy

Over the period Dec. 26–31, Subsection Np will have sessions for contributed papers and symposia cosponsored by the Scientific Section of the *American Pharmaceutical Association*, the *American Society of Hospital Pharmacists*, the *American Association of Colleges of Pharmacy*, the *American College of Apothecaries*, the *American Drug Manufacturers' Association*, and the *American Pharmaceutical Manufacturers' Association*.

O—Agriculture

Section O plans some four sessions for Dec. 28 and 29.

P—Industrial Science

Section P, now in its third year, will have a program arranged by Francis J. Curtis. The New England Section of the *American Industrial Hygiene Association* will have a two-day program arranged by W. M. Pierce, consisting of joint meetings with other groups on Dec. 28, a technical session of the society the morning of Dec. 29, and papers of general interest on industrial hygiene, on the afternoon of Dec. 29. (Those interested in giving papers should communicate with F. J. Viles, Jr., Department of Industrial Medicine, MIT.) The *Society for Industrial Microbiology*, it is expected, will have sessions for contributed papers and a symposium, as in prior years.

Q—Education

Section Q plans a two-session symposium on "Visual Efficiency in Industry" and another of three sessions on "Conserving Human Resources," sessions for contributed papers, and a vice-presidential address by

Donald D. Durrell, Dec. 28–30. The *AAAS Cooperative Committee on the Teaching of Science and Mathematics* will have a two-session symposium, arranged by George G. Mallinson and cosponsored by Section Q and the three science teaching societies, Dec. 27. The *National Science Teachers Association* will have three days of sessions, a number of them concurrent, others joint with the National Association of Biology Teachers and the American Nature Study Society, Dec. 28–30. The *American Nature Study Society's* annual meeting, from Dec. 26–30, includes a program on marine biology, two sessions on animal ecology, sessions and presidential address, and a joint field trip with the National Association of Biology Teachers.

X—Science in General

The *Committee on Disaster Studies, National Research Council*, is sponsoring the symposium, "Disaster Recovery II," arranged by Harry Williams. The *National Association of Science Writers* will hold its annual meeting with the AAAS and have a program. The *Scientific Research Society of America* and the *Society of the Sigma Xi* will sponsor evening addresses and, on Dec. 29, hold their annual conventions with the Association. The *National Geographic Society* and the *United Chapters of Phi Beta Kappa* will arrange evening addresses.

Call for Papers by AAAS Sections

The following sections of the Association will have sessions for contributed papers. The secretaries or program chairmen to whom titles and brief abstracts should be sent, *not later than September 30, 1953*, follow:

C—Chemistry Dr. Ed. F. Degering, George Washington Inn, New Jersey and C Streets, S.E., Washington, D. C.

E—Geology and Geography Dr. Jack B. Graham, 3400 North Westmoreland Street, Falls Church, Va.

G—Botanical Sciences Dr. Stanley A. Cain, School of Natural Resources, University of Michigan, Ann Arbor, Mich.

H—Anthropology Dr. Gabriel Lasker, Wayne University, 1512 St. Antoine Street, Detroit 26, Mich.

I—Psychology Dr. William D. Neff, Department of Psychology, University of Chicago, Chicago 37, Ill.

Nd—Dentistry Dr. Russell W. Bunting, School of Dentistry, University of Michigan, Ann Arbor, Mich.

Np—Pharmacy Dr. George F. Archambault, Pharmacy Branch, Division of Hospitals, Federal Security Agency, Public Health Service, Washington 25, D. C.

O—Agriculture Dr. C. E. Millar, Department of Soil Science, Michigan State College, East Lansing, Mich.

Q—Education Dr. D. A. Worcester, University of Nebraska, Lincoln, Neb.

