

in elucidating them has been disappointingly slow, owing in considerable part to a concentration of effort in studying their end products in fully matured wood, rather than the developmental processes themselves. However, the growth of forests on nonagricultural lands is so significant to the future welfare of man as potential sources of diversified organic substances and of stored solar energy that a sustained and comprehensive effort should now be made toward a better understanding of developmental processes in the for-

mation of wood. To be successful such an effort must involve a much closer and broader integration of research in different scientific disciplines.

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News and Notes

Seminar on Social Processes in the Pacific

THE Australian National University sponsored a Jubilee Seminar on Social Processes in the Pacific August 27-29 in Canberra, with the Research School of Pacific Studies as host. Following the formal opening of the seminar by Douglas Copland, Raymond Firth, of the University of London, outlined the aims of the conference. It was not intended for the presentation of papers on original work or the discussion or formulation of research plans as such. Rather it was designed to discuss and define problems of social process in the Pacific and to formulate hypotheses for further research.

Four keynote papers were presented as points of departure for discussions. The first of these was given by Margaret Mead on "The Changing Structure of the Family and Higher Kin Units." Dr. Mead noted that in the past anthropologists have focused their attention on the unique character of island groups and have tended to lose sight of the larger regularities, which transcend differences among culture areas such as Polynesia, Melanesia, etc. She suggested that a subject requiring study is the social organization of detribalized and deculturated natives. She further indicated that an investigation of native workers may reveal new forms of social organization based on kin patterns. The central question, Dr. Mead felt, was "How are old kin relationship patterns being used in newly created situations?" Future work in the Research School will involve the study of individual cultures under contact conditions. Dr. Mead concluded by pointing out that the Pacific is becoming an arena for clashing ideologies:

It is possible that if adequate attention is given to the formal kinship patterns, in contrast to whatever new patterns of organization and allegiance are to be introduced, considerably greater integration of native character might be maintained, and some of the destructive accompaniments of culture contact prevented—for example, the extreme growth of *anomie*, and proletarianization and detribalization.

A. P. Elkin, University of Sydney, explored the concepts of social process in the Pacific. In the process

of adaptation to changing environment, the task is to determine and isolate the factors involved. Elements concerned in the process are receptiveness toward outside influences and inventiveness within the group; hostility, which strengthens the cohesion of a community; isolationism in language, customs, values; the family, which is not strongly integrated within itself; larger kin groups. Examples of fatal attacks on the structure of society were cited in the usurpation of the aborigines' land and, in Melanesia, absence for long periods at work of marriageable men. Contact and clash in the Pacific have resulted in a double life—on one side the natives express need for European benefits, whereas on the other there are conflict and hostility toward European influence.

W. E. H. Stanner, Australian National University, described "The Economic Development of Pacific Peasant Peoples against their Social Background." He listed six important basic factors affecting development in the South Pacific: relative poverty of physical resources; small and usually ill-distributed populations; high incidence of disease, malnutrition, and illiteracy; primitive technological attainment; a prevalent traditionalist ethos; social structures of fairly simple differentiation. At the more immediate level one has to deal with the factors of low average production per head, low real or monetary income per head, low rate of capital investment per head, and a high maldistribution of income. All Pacific territories also share in what Dr. Stanner termed "typical" disabilities of the "colonial" type of economy. Pacific economic prospects are not promising. Some island situations are clearly antipathetic toward development, some are anomalous and thus make prediction difficult if not impossible, and a few show some developmental coherence. The developmental problem is to change the elements that have dominated the traditional island economic systems so that expanding systems can replace the characteristic island stationary systems.

Unfortunately, the rate of population expansion over the next twenty years will probably be so high that the rate and scale of capital investment needed to maintain

existing standards will be higher than the administratively practicable rate. A realistic development policy for the Pacific Islands entails direct external aid in the vicinity of £20-£30 millions annually.

A. Grenfell Price, University of Adelaide, discussed "Geopolitical Transformation of the Pacific and its Present Significance." He presented a concise account of European expansion into the Pacific and suggested certain problems of human and historical geography that had developed. In concluding, Dr. Price outlined three fundamental problems:

(1) The increasing population in the Asiatic Pacific (and Indian Ocean) lands is allied with demands for better living conditions. This is probably the real strength of communism in Asia. Migration is no solution for population increments of the order involved and the outlook is gloomy. (2) Linked with the demographic problem is that of the destruction of resources through erosion and soil depletion. (3) Industrialization of Asian Pacific countries with great raw material and population resources, such as China, may lead to immediate population increases at an even greater rate than now prevails, and a repetition on a greater scale of the consequences of Japanese industrial expansion. On the other hand, industrialization has a positive part to play in assisting the intensification of agriculture, and the development of secondary industry may eventually assist in meeting population pressure.

The fourth keynote paper was presented by J. W. Davidson, Australian National University, who spoke on "The Changing Political Role of Pacific Islands Peoples." The scientific study of government in the Pacific Islands, he pointed out, is scarcely begun.

For the present, research must continue to be pragmatically organized, with the aim of developing adequate concepts for the more systematic study of dependent government later on. The inadequacy of the theoretical background makes it of special importance that the study of problems of government should go hand in hand with the understanding of other fields of social action.

Lively and profitable discussion followed the presentation of each paper. In summarizing the seminar, Chairman Firth noted that differences of opinion on principles and on stress had emerged, but that there had been general agreement on the importance of the problems arising from the subjects discussed. Especially noteworthy had been the complete equality of expression as between theoretical scholars and area experts. The interdisciplinary nature of the conference had also been very valuable.

Among the many points emerging during the seminar was the need felt for more data of a numerical kind for the greater use of quantitative factors in the analyses of social processes. There was also agreement on the need for more field study of small units to allow for closer comparison and the isolation of specific variants. In the economic field, for instance, more careful study is needed of the resources of Pacific communities and the relation between these potentialities and what the populations themselves desire.

On the invitation of the chairman, visitors at the

conference who represented various organizations interested in Pacific research commented on the activities of their respective organizations. A. P. Elkin spoke concerning the Australian National Research Council, the University of Sydney Research Committee and Department of Anthropology, and the Pacific Science Council of the Pacific Science Association; A. Capell, of the teaching of linguistics at the University of Sydney; E. Beaglehole, of the increasing awareness in New Zealand of the need for research, and of the Social Science Research Committee at Victoria University College; J. Guiart, of the Institut français d'océanie; L. G. Hudson, of the Pacific Science Council Secretariat and Pacific Science Association; C. Rowley, of the Australian School of Pacific Administration; H. E. Maude, of the South Pacific Commission; and Dr. Mead, of some publications and outlets for publication, including *Human Organization* published by the Society for Applied Anthropology.

From Report of the Executive Secretary, Pacific Science Council Secretariat

Scientists in the News

J. B. Austin, director of research and chief of U. S. Steel's Research Laboratory at Kearny, N. J., has been appointed a member of the Committee on Chemical Warfare of the Department of Defense Research and Development Board. Dr. Austin has served the committee as an alternate member to Randolph T. Major, who is now chairman.

Hans A. Bethe and Harry A. Winne have been appointed members of the Committee on Atomic Energy, Research and Development Board. Dr. Bethe, professor of physics at Cornell University, was chief of the theoretical physics division of the Los Alamos Scientific Laboratory during 1943-46. Mr. Winne is vice president in charge of engineering policy, General Electric Company, Schenectady.

P. V. Cardon will serve as director of the Graduate School of the U. S. Department of Agriculture during the absence of Lewis H. Rohrbaugh. O. B. Conaway, Jr., former assistant to the director, has been named assistant director. Dr. Cardon joined the Graduate School staff as assistant director on a part-time basis, Feb. 1, following his retirement as ARA administrator. He will fill the post of director while Dr. Rohrbaugh is on a two-year assignment as Point IV director for Iraq.

William G. Carr has been named to succeed Willard E. Givens as executive secretary of the National Education Association. Dr. Givens will retire Aug. 1 after 17 years of service. Dr. Carr has been associate secretary of the NEA since 1940, and secretary of the Educational Policies Commission of the NEA and of the American Association of School Administrators since 1936.

The 1952 award of the Commercial Chemical De-

velopment Association will be given to **John P. Coe**, vice president and general manager of the Naugatuck chemical division of the United States Rubber Company. The award is presented annually to the person in the chemical and chemical process industries who has performed outstanding service and work in commercial chemical development.

A policy dispute in the Veterans Administration has prompted the resignation of **E. H. Cushing** as assistant chief medical director. Vice Admiral Joel T. Boone, VA medical chief, expressed surprise at Dr. Cushing's resignation because only last September the doctor accepted a four-year reappointment as head of the medical research and education programs. Dr. Boone named **George Marshall Lyon** to replace Dr. Cushing. Dr. Lyon has directed the agency's radioisotope research program.

The Mathewson Gold Medal was awarded by the American Institute of Mining and Metallurgical Engineers to three laboratory employees in General Electric Company's Transformer and Allied Products Division and to one former employee for outstanding achievement in the field of metallurgy. Recipients were **Cecil G. Dunn**, **Franklin W. Daniels**, and **Michael J. Bolton**, of GE's Laboratory Engineering Department, Pittsfield, Mass., and **Fabian Lionetti**, who is currently a biochemistry instructor at the Boston University School of Medicine. The Mathewson Medal is awarded for the paper or series of closely related papers with at least one common author, which represents the most notable contribution to metallurgical science in the three-year period preceding the award. This year's winners discovered some of the factors that control the growth of crystals in metals, and their findings are especially useful in transformer manufacture, where the magnetic properties of steel used in transformer core structures depend entirely upon the growth of a certain kind of crystal during heat treatment.

Henry C. Falk, director of gynecology and obstetrics, Beth Israel Hospital, and clinical professor of gynecology, New York University Graduate School of Medicine, is in Israel making a six-week tour of the hospitals run by Hadassah, women's Zionist organization. Dr. Falk has been invited by the Medical Advisory Board of the Hebrew University-Hadassah Medical School to demonstrate certain types of gynecological surgery and to lecture to the Jerusalem Medical Society on pelvic inflammatory diseases. He will also demonstrate surgical techniques at government and other private hospitals in Israel.

Sinai Hospital of Baltimore will have **Harry Gordon** as full-time chief of staff in pediatrics. In accordance with a joint agreement recently entered into between Sinai and the Johns Hopkins medical institutions, Dr. Gordon was also appointed an associate professor in pediatrics at the Johns Hopkins Medical School and pediatrician on the staff of the Hopkins Hospital. Dr. Gordon resigned as professor of pediatrics at the Uni-

versity of Colorado School of Medicine and as pediatrician-in-chief at the Colorado General and Denver General hospitals to accept the Sinai appointment.

R. I. Higgins, of the British Cast Iron Research Association, is replacing **C. Wainwright** as metallurgical liaison officer at the United Kingdom Scientific Office, Washington, D. C. Mr. Wainwright has returned to England to resume his work at the National Physical Laboratory, Teddington.

Ferdinand Jehle, formerly with the Hoffman Specialty Company, is now secretary to the Indiana State Board of Registration for Professional Engineers and Land Surveyors at Indianapolis.

J. Wallace Joyce, deputy science adviser, Department of State, represented the U. S. government as an observer at the British Commonwealth Scientific Official Conference in Canberra and Melbourne, Australia. Primary purpose of the conference was to enable official scientists of the British Commonwealth countries to consider ways and means of ensuring the fullest possible collaboration among the government scientific organizations of the Commonwealth. It was anticipated that a U. S. observer might facilitate closer and more extensive liaison between American and Commonwealth scientists. Items considered included the development of scientific liaison offices, scientific representation abroad, methods of Commonwealth collaboration in science, relations with international organizations, and information and abstracting services.

W. McNeil Lowry, chief Washington correspondent for the Cox newspaper chain, has been appointed associate director of the International Press Institute. In his new post he will be directly concerned with research studies of the institute, which has its headquarters in Zurich. He will also edit the institute's monthly bulletin, *I. P. I. Report*. The institute, whose secretariat is supported by grants from the Ford and Rockefeller foundations (*SCIENCE*, 114, 249 [1951]), is an organization of editors from the free countries of the world dedicated to the preservation and strengthening of the free press and to inquiry into problems of international journalism.

Malcolm S. McIlroy will be appointed assistant dean of the College of Engineering at Cornell, following the retirement of Assistant Deans **Walter L. Cornwell** and **Robert F. Chamberlain** this summer. He will continue in his present capacity as assistant director of the School of Electrical Engineering until July 1.

T. C. Schneirla, curator, Department of Animal Behavior, American Museum of Natural History, and a group of three assistants are spending five months in the Canal Zone Biological Area, Barro Colorado Island. It is anticipated that the present expedition will conclude a 20-year project on the ecology and behavior of army ants of the genus *Eciton*. Accompanying Dr. Schneirla are **William B. Jackson**, of Johns Hopkins; **Carl Rettenmeyer**, of Swarthmore;

and **R. Elwood Logan**, American Museum photographer.

Kai Siegbahn has recently been appointed professor of physics at the Royal Institute of Technology (Kingl. Tekniska Hogskolan), Stockholm. There are now two professorships in physics at the institute, with **Guomund Borelius**, a solid-state physicist, occupying the other chair. It is expected that Dr. Siegbahn will continue to work closely with scientists at the Nobel Institute for Physics, where he has been for a number of years.

Samuel S. Stratton, president of Middlebury College, has been appointed director of Point IV technical assistance for Saudi Arabia.

Starr Thayer, a cathodic protection consultant of Houston, and **Earl A. Gulbransen**, advisory engineer to Westinghouse Research Laboratories, East Pittsburgh, Pa., have been designated to receive the annual Frank Newman Speller and Willis Rodney Whitney awards from the National Association of Corrosion Engineers. The awards will be presented Mar. 13 during the eighth annual Conference and Exhibition at Galveston. The Speller Award is given for achievement in corrosion engineering, and the Whitney Award for achievement in corrosion science.

George Wald, of the Biological Laboratory of Harvard University, will discuss "The Molecular Basis of Vision" (*cf.* SCIENCE, 113, 287 [1951]; 115, 60 [1952]) as a Sigma Xi national lecturer at a number of colleges and universities. His itinerary will take him from Illinois to California and back via the Southwest to Kansas and Missouri.

J. Alexander Webb, of Pitman, N. J., vice president of Abbotts Dairies of Philadelphia, has received the annual award of merit of the New Jersey milk industry in connection with Farmers Week. In making the presentation, William J. Russell, president of the New Jersey Milk Industry Association, praised Dr. Webb's contributions in reducing dairy herd tuberculosis and seeking solutions of the industry's problems.

Lewis G. Weeks, chief research geologist of the Standard Oil Company (N. J.) and vice president of the American Association of Petroleum Geologists, gave three talks on phases of "Basin Development and Oil Occurrence," at Maracaibo, Caripito, and Caracas, in the course of a recent trip to Venezuela.

W. Barry Wood, Jr., Busch professor of medicine at Washington University, recently served as the physician-in-chief pro tempore at the Peter Bent Brigham Hospital, Boston.

O. L. Zangwill, of the Institute of Experimental Psychology, Oxford, has been appointed to succeed **Frederic C. Bartlett** as professor of experimental psychology, University of Cambridge.

Education

In **Better School Design**, a nation-wide contest sponsored by *The School Executive*, five schools received top honors, four received special citations for outstanding merit, and 15 others honorable mention. The top five were the New Bangor (Me.) Elementary School; Mira Vista Elementary School, San Francisco; the Lido Beach School, Long Beach, N. Y.; the Rosedale Road School, Yonkers, N. Y.; and the Will Rogers School, Stillwater, Okla. In a second contest sponsored by the same journal, five schools were chosen winners in a **Competition for Community Improvement**, and five others were accorded honorable mention.

Harvard University, aided by a three-year grant from the Fund for the Advancement of Education (Ford Foundation), will begin a program of training for elementary and secondary school teachers in cooperation with 20 other Eastern colleges. Fellowships will be offered graduate students for a year of study at Harvard leading to the M.E. or the M.A. in teaching. The Ford Foundation is supporting the program with \$45,000 per year for fellowships and \$33,000 per year for costs of instruction and administration. Most educators agree that the project should stimulate able undergraduates to take up careers in teaching in the elementary and secondary schools, thus relieving the serious shortage of competent teachers.

The **University of Illinois** College of Education will offer for the first time a summer workshop for specialists in elementary education (June 23-July 19), which will carry one unit of graduate credit. Problems of administration, curriculum, supervision, public relations, and in-service training will be studied under the supervision of Fred P. Barnes, J. Harlan Shores, and Edwin H. Reeder (Illinois); H. M. Barr (Portland, Ore., director of research in the public schools); and O. M. Chute (Evanston, Ill., superintendent of grade schools). Professor Reeder will be chairman of the workshop.

A Rheumatoid Arthritis Rehabilitation Project at the **New York City Goldwater Memorial Hospital**, under the direction of Edward W. Lowman, will seek to determine the effect of cortisone therapy in conjunction with intensive rehabilitation procedures on severely disabled patients. Fifty patients, residents of New York City, and meeting a variety of other conditions, will be admitted in 1952 and in 1953.

At the **Texas Medical Center**, Houston, M. D. Anderson Hospital for Cancer Research will hold its sixth annual "Symposium on Fundamental Cancer Research" Apr. 25-26. During the same period a Cancer Pathology and Radiology Conference on "Tumors and other Diseases of Bone" will be held. The South Central Section of the College of American Pathologists will participate in both meetings. The third Bertner Foundation Lecture and Award will be features of a banquet in the Hotel Shamrock Apr. 25.

Grants and Fellowships

The **Alumni Fund of Michigan State College** is offering seven predoctoral fellowships (\$800–\$1200) and one postdoctoral fellowship (\$300) to qualified candidates in any field of research for which Michigan State has the appropriate facilities. Inquiries should be addressed to the dean of the School of Graduate Studies. Completed applications must be received before *May 1*.

The **National Science Foundation** has approved 28 research grants, totaling \$410,000, in the biological sciences. Grants ranged in amount from \$780 (University of Minnesota, investigation of coal ball floras) to \$50,000 (University of California, Berkeley, study of polygenic variability). The foundation will also support the operating expenses of the Pacific Science Board for two years (\$24,000). The total allocation represents slightly less than 40 per cent of the funds available to the foundation for support of basic research for the current fiscal year. Additional proposals are being evaluated.

For the fiscal year beginning Apr. 1, the **National Tuberculosis Association** has approved 25 grants to aid research in the bacteriology and chemistry of the tubercle bacillus, anatomy and physiology of the lung, pathology and immunology of tuberculosis, experimental chemotherapy, clinical treatment of tuberculosis, and epidemiology of tuberculosis and related diseases. Eleven research and teaching fellowships were approved.

Applications for **Helen Gates Putnam Fellowships** in the Graduate Division of Conservation at Vassar will be accepted by the Plant Science Department until *Apr. 1*. The fellowships provide tuition and a stipend of \$1200 in return for part-time assistance in the department.

The **A. H. Robins Co., Inc.**, of Richmond, Va., has underwritten a project at the Sperry Gyroscope Co. designed to investigate the medical relief of common pains of occupational origin. Initially 100 patients will be treated, after which the investigation may be extended.

The **Alexander and Margaret Steward Fund** has awarded grants totaling \$45,184 to George Washington University for home care of cancer patients and to evaluate methods for treating cancer patients who are beyond help by routine surgical or x-ray therapy. Both grants will continue projects previously supported by the fund in the Cancer Clinic, under the direction of Calvin T. Klopp.

Vernay Laboratory, Inc., has established a one-year postdoctoral fellowship at Antioch College for research into the methods of synthesizing certain organic compounds containing silicon or fluorine. Clark Gage, of Yellow Springs, has been appointed to the fellowship for 1952 and will work under the direction of James F. Corwin.

Meetings and Elections

The **American Association of Petroleum Geologists**, meeting in Los Angeles Mar. 24–27, will install Morgan J. Davis, vice president and director in charge of exploration for Humble Oil and Refining, as president. Other 1952–53 officers include John G. Bartram, vice president; Robert H. Dott, re-elected secretary-treasurer; and Kenneth K. Landes, re-elected editor.

Syracuse University and the Bureau of Nutrition, New York State Department of Health, will co-sponsor a **Community Nutrition Institute** June 16–28, planned for nutritionists, physicians, public health nurses, social workers, dentists, clinical dietitians, teachers of nutrition, and public health educators. Applications should be sent to Anne Bourquin, College of Home Economics, Syracuse University.

An **Educational Television Programs Institute**, a five-day seminar for approximately 60 college presidents and school superintendents, will be held at Pennsylvania State College Apr. 21–26. Milton S. Eisenhower is chairman of the Institute Committee, which consists of Armand L. Hunter, Ralph Steetle, Theodore M. Hesburgh, Francis Keppel, Mark C. Schinnerer, George E. Probst, and Arthur S. Adams. Carroll V. Newsom will direct the seminar, which is being underwritten by the Fund for Adult Education.

The first **International Congress of Dietetics** will be held July 7–11 in the Royal Tropical Institute, Amsterdam. Details will be furnished by Diane J. Ten Haaf, general secretary of the Executive Committee, 13 Pomonaplein, The Hague.

An **International Symposium on Problems of Desert Research** will be held in Jerusalem May 7–14. W. C. Lowdermilk, of the U. S. Department of Agriculture, will preside over the sessions. Other representatives from the U. S. will include J. B. Leighley, C. W. Thwaite, P. Meigs, and F. W. Went.

The **Pan-American Convention of Gastroenterology** will be held in Mexico City May 11–17. At the same time the **Mexican Gastroenterological Association** will hold its first national congress. Ramón Flores López, Oficina de Enseñanza e Investigación, Hospital General, Mexico 9, D. F., will supply details as to the program, for which papers are invited.

A **Symposium on Tropical Medicine** was held recently at Norwich, N. Y., under the auspices of Eaton Laboratories. J. M. Amberson, B. A. Cole, L. Hellerman, M. Natt, and A. Packehanian discussed the antimicrobial nitrofurans, a new chemotherapeutic means of treating tropical diseases.

The **Western Society of Naturalists**, meeting at Pomona College, elected the following officers for 1952: president, Arthur W. Martin; vice president, Martin W. Johnson; treasurer, Eugene N. Kozloff; member-at-large, Executive Committee, Philip A. Munz; and secretary, Garrett Hardin.