

Books of the Week

TO SERVE YOU: To get books, send us a check or money order to cover retail price. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W. Washington 6, D. C. Ask for free publications direct from issuing organizations.

ADOLESCENT CHARACTER AND PERSONALITY—Robert J. Havighurst and Hilda Taba—*Wiley*, 315 p., illus., \$4.00. A study of boys and girls in a midwest city with 10,000 population. Reputations were studied and interviews and various test methods were included.

AGRICULTURAL GEOGRAPHY OF EUROPE AND THE NEAR EAST—Lois B. Bacon and others—*Govt. Printing Office*, Misc. Publ. 665, 67 p., illus., paper, \$1.00. Information on the vital questions of soils, crops, and population in Europe and the Near East.

CHILD'S GARDEN OF FLOWERS—Robert V. Masters—*Greenberg*, 32 p., illus., \$1.00. A cute book for children containing full directions for planting and growing the first flower garden. Contains the seeds needed.

CHILD'S GARDEN OF VEGETABLES—Robert V. Masters—*Greenberg*, 32 p., illus., \$1.00. With this little book even the very young members of the family can grow attractive vegetables for the table. All instructions are clearly presented and seeds needed are included.

HOW TO KNOW THE BIRDS: A Simple Aid to Bird Recognition—Roger Tory Peterson—*New Am. Lib.*, 144 p., illus., 35 cents. An outstanding authority provides a pocket size aid to recognizing birds you meet. Contains silhouettes for identifying birds in flight or perched overhead.

HYBRID POPLAR PLANTING IN THE LAKE STATES—Paul O. Rudolf—*Lake States Forest Experiment Station*, 17 p., paper, free upon request to publisher, University Farm, St. Paul 1, Minn. Report on a very fast growing tree

valuable for pulpwood production.

IDEOLOGICAL DIFFERENCES AND WORLD ORDER—F. S. C. Northrop, Ed.—*Yale University Press*, 486 p., \$4.50. Pointing out the obstacles which make it difficult to bring international disputes under the rule of law rather than decision by force and suggesting methods for the removal of the obstacles. Contains contributions by a number of different experts in various fields of law and social science.

HUMANISM AS A PHILOSOPHY—Corliss Lamont—*Philosophical Library*, 368 p., \$3.75. An expansion and revision of a lecture course "The Philosophy of Naturalistic Humanism" given by the author at Columbia for the past three years.

THE RADIO AMATEUR'S HANDBOOK—*Amer. Radio*, 26th ed., 564 p., illus., paper, \$2.00. Contains an immense amount of technical information for the "ham."

SOCIAL WORK YEAR BOOK 1949—Margaret B. Hodges, Ed.—*Russell Sage*, 10th issue, 714 p., \$4.50. 1949 edition of a book published biennially as a concise encyclopedia of organized activities of social work and related fields.

THESE BEAR THE TORCH: Five years of progress in mental hygiene—*New York Department of Mental Hygiene*, 48 p., illus., paper, free upon request to publisher, Governor Alfred A. Smith State Office Building, Albany 1, New York. An interesting report on how New York state cares for the mentally ill and mentally handicapped.

Science News Letter, March 12, 1949

RADIO

Ghosts In Radio Reception

► **ELIMINATING** "ghosts" from television reception is one of the problems confronting the radio engineers. They come from what scientists call two-path transmission caused by reflections from buildings and other objects.

In shortwave AM broadcasting, the type picked up by ordinary radio receivers, the same phenomenon caused by multiple reflection from the radio-reflecting strata high in the air, known as the ionosphere, frequently results in severe distortion.

One of the important characteristics of a modulated system of broadcasting is the possibility of interference, the Institute of Radio Engineers meeting in New York, was told by Ernest R. Kretzmer of the Massachusetts Institute of Technology. While one system may be adversely affected by common-channel interference from a similar communication service, another system may not suffer noticeably even though the interfering signal is equally strong.

Pulse-time modulation was the particular type discussed by Prof. Kretzmer. This is the generic term, he explained, for those

types of pulse modulation in which the timing of pulse edges is varied in accordance with the modulating signal. They are of two types, pulse-duration modulation (PDM) and pulse-position modulation (PPM). They differ essentially only in the relation between the timing of the two low edges of each pulse.

The main difference between the sound technique of a television studio and that of sound broadcasting and motion picture recording was presented to the meeting by Robert H. Tanner, Northern Electric Co., Ltd., Belleville, Ontario. In sound broadcasting, the microphone is all-important, whereas in television and motion pictures it has to compete with cameras and lights.

Television studios cannot be provided in such numbers or in such variety as broadcasting studios. The microphones will always be farther away from the artist than in sound broadcasting, and the noise level in the television studio will always be higher. Frequent changes in camera angles require corresponding changes in sound. Methods for combatting these difficulties was dis-

cussed by the scientist. Pre-recording of sound was one suggested.

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GENERAL SCIENCE

New Council To Iron Out World Meeting Conflicts

► **TO PREVENT** conflicts in world meetings on medicine, 54 international associations, leagues, committees and congresses are joining in a new super-international council.

A meeting at Brussels, April 4 to 9, will discuss methods of preventing meetings being held at the same time or in widely spaced geographical locations. One plan will be to encourage serial meetings in the same part of the world. Both UNESCO and the World Health Organization are encouraging this new attempt to exchange information and cooperate in the many world fields of medical science and pure and applied biology.

Prof. J. Maisin, general secretary of the International Union Against Cancer, will be chairman of the new coordination committee, while arrangements for the meeting are being made by Dr. I. M. Zhukova, head of the medical sciences division of the United Nations Educational, Scientific and Cultural Organization in Paris.

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A New Theory of HUMAN EVOLUTION

By SIR ARTHUR KEITH

EVER since man's kinship with the apes was recognized, there has been controversy over the nature and habitat of his pre-human ancestors and the causes which led to their evolution into *homo sapiens*. Now Sir Arthur Keith, in a book finished, as he tells us, on his eighty-first birthday, gives us the results of his years' study of these questions.

It was formerly held that man was actually descended from apes of the existing species, the European perhaps from the chimpanzee, the Negro from the gorilla and the Mongol from the orang-outang. Of late years, however, it has come to be the general opinion among anthropologists that man is not descended from any existing anthropoid but from some now extinct relative; and the fact that all races of mankind will readily interbreed has been taken to show that the human species is really one, and must therefore be the offspring, if not of one pair, at least of one related group. \$4.75

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