importance to present-day China than to any country in the world. Even beyond her desperate and growing need for wood is the fact that her agricultural productivity depends on water conservation and, hence, on the afforestation of her denuded lands. Today the great part of China's natural forests has been destroyed, with the result that soil erosion is both acute and widespread and the shortage of forest products has to be experienced to be believed. So great is the demand for fuel wood alone that trees planted as part of her reforestation program are stolen almost as soon as they are put in the ground.

Richardson treats the many facets of China's forest land problem under such headings as "Economic background," "Natural vegetation," "Forestry administration and policy," "Water conservancy and protection forests," and "Education and research."

One of China's gigantic forestry projects is the "great green wall," the most ambitious protection-afforestation project ever undertaken by any nation. It consists of a series of massive shelterbelt systems which ultimately will form a more or less complete ring around the northern deserts. Richardson points out that China's forestry conservancy and protection-forests programs have been drawn up on a gargantuan scale and prosecuted with vigorous energy. Many mistakes have been made, many projects misdirected. Survival rate in plantations is probably poor, and widespread failure has been experienced. The Chinese recognize all this and are trying to avoid these blunders in the future.

The book is splendidly illustrated and contains a series of appendices and notes, together with a list of more than 100 arid-zone plant species, as well as a comprehensive bibliography.

This is not only a unique source of information hitherto unobtainable, but a vivid and convincing study of the greatest forestry effort known to history.

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Radiobiology and the Nervous System

Many books have been written about the effects of ionizing radiation on biological systems. Scant emphasis, however, is usually given to the role of the nervous system in radiobiological effects, since it is often thought that very large doses of radiation are necessary in order to affect the nervous system. During the past decade or two, however, it has gradually become known that behavioral responses can be elicited by millirad doses of ionizing radiation. Psychologists have found that radiation can be used as a stimulus; for example, moths may begin beating their wings shortly after being exposed to 0.1 r/sec of x-rays. Some effects of ionizing radiation are long-lasting; if a rat is presented with a single exposure to radiation at a time when saccharin is added to its drinking water, it will display an aversion toward saccharin solutions for several months thereafter. The physiological basis for such behavior is not known. Many animals have also been shown to respond to x-rays that impinge on the eye. Such reactions are probably due to fluorescence and depend on the state of visual dark adaptation.

Donald J. Kimeldorf and Edward L. Hunt, both of the U.S. Naval Radiological Defense Laboratory at San Francisco, have written **Ionizing Radiation: Neural Function and Behavior** (Academic Press, New York, 1965. 343 pp., illus. $10) in order to interest experimental physiologists and psychologists in the use of ionizing radiation as a research tool. The book is therefore organized according to the concepts of neurophysiology and behavioral science rather than those of radiation biophysics. The first chapter summarizes the properties of ionizing radiation and introduces radiobiological concepts, and the next is devoted to the function of the nervous system. The reader who is not familiar with this area of radiation research can become oriented rather quickly by reading these two chapters and then can pass on to any of the chapters dealing with particular effects of ionizing radiation on various portions of the nervous system and on gross behavior.

Because no overall theory has been formulated to account for the diverse effects of irradiation on animals, Kimeldorf and Hunt have presented a series of selected reports of investigations, together with their own speculations and hypotheses regarding the mechanisms that underlie the observed effects. They should be congratulated for their digest of the effect of ionizing radiation on neural function and behavior. It can be predicted that the level of activity in this interesting field of science will be materially enhanced as a result of this book.

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Oxytocin Research

Advances in Oxytocin Research (Pergamon, New York, 1965. 162 pp., illus. $10), edited by J. H. M. Pinkerton, has a misleadingly broad title for a volume that contains the proceedings of a symposium about some limited aspects of oxytocin research. The symposium, which was held in London in May 1964, was sponsored by the Blair-Bell Research Society, a recently founded institution (1962). It brought together some well-known workers in the field of oxytocin research. The book is divided into two parts, Physiology and Pharmacology, and Clinical Applications. The first part includes a paper on circulatory effects of synthetic oxytocin, desamino-oxytocin, synthetic lysine-vasopressin and "Octapressin" (2-phenylalanine-vasopressin), as determined by the use of rubidium-36 to measure the regional blood flow. The rest of this part is dedicated to the problem of oxytocin concentrations in blood during lactation and parturition. The papers are by researchers from some of the laboratories in which the difficult problem of detecting and measuring circulating endogenous oxytocin is being systematically and thoroughly studied, and they are indeed worthwhile reading.

A paper in the second part of the book deals with endocrine control of labor, a controversial and unresolved problem that is further obscured by this presentation. Another paper is dedicated to the clinical use of oxytocin, administered by the transbuccal route, to induce labor. This contains much interesting information, but in several instances some study is needed to resolve apparent discrepancies in the numerical data. The number of cases of fetal distress (11 percent) appears to