

often receive hospital care and the aged in Britain more often receive domiciliary care reflects such a difference. Domiciliary services in Britain compensate in part for a scarcity of hospital beds and do not necessarily signify better medical services. The facts are what they are, but it is not clear to me what conclusions are derivable from them. Moreover, although the influence of response tendencies in surveys has been well documented, the authors often fail to see the possibility that some of their results may be artifacts of that influence. For example, do women suffer greater incapacities than men of comparable age, or are they just more willing to report their incapacities to an interviewer? Indeed, given the care with which this study was conceived and executed, the analysis is doubly disappointing. The indices used are statistically crude, and the analysis of the data is primitive. For the most part, the authors present simple cross-tabulations, generally failing to assess the strength of association among variables and neglecting to partial out the effects of a variety of intercorrelated independent predictors.

The implications of the study for social policy are underdeveloped as well. Many of the conclusions are platitudes. The authors do not sufficiently delve into their own findings to locate particularly vulnerable groups, to suggest public policies that will help meet their needs, and to explore mechanisms for implementing such policies. Too much of welfare legislation fails to reach the most needy and underprivileged, and it is these groups in particular to whom we must be especially responsive. Although the proportion of aged persons suffering from desolation is small, the number of such persons is not insignificant and they require community help.

A survey of this sort tends to view the problem of aging from only one of many perspectives. By obtaining data on the social contacts of the aged with relatives and friends, one can observe that there are many informal sources of help and support within families and the community. But such studies do not provide information on the social costs and difficulties experienced by families who take on the care of aged relatives and who are willing to assume large burdens because of love and loyalty. These are qualities worthy of support in any society. And if a community can develop a system of social services to assist families that take on such responsibilities and to help relieve their

burdens and social costs, it is not inconceivable that love, loyalty, and responsibility can be encouraged and increased. Unfortunately, the authors are not sufficiently specific in deriving implications from their very rich data.

The similarity of the situation of the aged in the three countries studied is extraordinary. In part, the homogeneity of results is due to the fact that the situation of the aged in the United States, however poor by comparison with that of younger Americans, is better than that of the aged in other countries. Although social services for the aged are superior in the Scandinavian countries and Britain to those of the United States, even there services are underdeveloped and inadequate and do not reach a sufficient number of the needy. It is difficult to detect the influence of different social policies if one looks mainly for the effects they have throughout the very large populations of aged in the respective countries. It is likely that larger consequences would be observable in comparing more closely the most disfavored poor of these countries.

Average pension payments in the United States are only 29 percent of average industrial wages; a third of all the income units among the aged are more than 20 percent below the median for that group. As one finishes examining this study it is still not clear just how far off the mark the typical social theories of aging are. It is clear, however, that much remains to be done in assisting the impoverished aged.

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## Some Economic Plants

**Tropical Crops: Dicotyledons.** J. W. PURSEGLOVE. Wiley, New York, 1968. 2 vols., xx + 719 pp., illus. \$8.50 each.

The objectives of the work entitled *Tropical Crops: Dicotyledons* are clearly set out in the preface by its author, who has had a wide experience as an agricultural officer in the tropics. The book is intended to contain the information which might emerge in a survey course on tropical agriculture or be welcomed by those who find themselves in unfamiliar tropical situations and are in need of general knowledge about the plants and the practices for their cultivation. It is thus a very general handbook and contains much miscellaneous

information, although its style and wide coverage often preclude the information in depth which the more specialized user might require. Nevertheless, the book should be valuable to those who undertake work in underdeveloped countries or who wish to inform themselves about unfamiliar crop plants and their husbandry. In these days of increasing interest in the tropics, the book may therefore meet a real need.

The author made certain arbitrary choices which often explain what the book does, or does not, contain. Since it deals only with dicotyledonous plants, the very important monocotyledonous tropical plants, among them palms of all kinds (including the coconut), bananas, the pineapple, sugarcane, yams (*Dioscorea* spp.), and agaves, are not dealt with. The book is arranged for those who understand botanical nomenclature, and others may find it somewhat disconcerting that a book about tropical crops is so tied to botanical classification that some of the most important crop plants are not included. Similarly, the range of the tropics and the designation "tropical crops" are so interpreted that many plants which are familiar in temperate or subtropical habitats (for example, cotton, tomato, potato, tobacco, and certain squashes) are included. Nevertheless, certain tree crops (for example, the macadamia nut from tropical Australia now cultivated intensively in Hawaii, and sandalwood from India) are not included, and some drug plants, for example, *Rauwolfia*, *Atropa*, and *Datura* spp., receive scant mention although they are indexed under the drugs they contain.

The style of the work is that of a manual with notes on the botanical classification of the plant in question, numerous original habit sketches of foliage and flowers, and short notes on cultural practices and propagation, on the useful products yielded, and on diseases and pests, pollination, seed germination, and chemical composition. However, the space devoted to each plant is often short and the information is of necessity very general. For example, the data on chemical composition relate mainly to very broad classes of "food and fibre" constituents. An appendix furnishes a useful glossary of scientific and common names of the plants referred to and also designates the origin and use of the plant in question. The book is attractively produced, and its limitations are inherent in its avowed objectives. While it tells a little about

many plants it may tell enough about very few. Nevertheless, the references appended to each chapter and the short general bibliography should assist those who may require access to more detailed information. Thus, within the limits set by the author, the book fulfills its objectives in a manner that many general readers and students should find useful.

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## Inquiring Naturalist

**South of Yosemite.** Selected Writings by JOHN MUIR. Frederick R. Gunsby, Ed. Photographs by Philip Hyde. Sketches by John Muir. Published for the American Museum of Natural History by the Natural History Press, Garden City, N.Y., 1968. xviii + 269 pp. \$7.50.

During the last three decades of the 19th century, a time when the country was firmly committed to rapid industrial development and full utilization of the "unlimited" natural resources of the west, John Muir sought out the secrets and solitude of California's Sierra Nevada. He found what he hoped for and contributed materially to our knowledge of the geomorphic evolution of glaciated mountain areas. However, he also learned of the short-sighted land ethic which has characterized the philosophy of many westerners since the gold rush. He saw the effects of logging practices, still prevalent today, of timber companies which were beginning to feel public pressure for preservation and thus rapidly and indiscriminately cleared forests of thousands of years of growth before the ponderous legislative machinery could move to protect them. He recognized and alerted the public to the problems of long-continued overgrazing by the animals he first went into the Sierra to herd but later called "hoofed locusts."

Unlike many of the vacationers, weekend outdoorsmen, sightseers, and mountaineers who visit the Sierra today, Muir went into the mountains because of a positive desire to explore, observe, and contemplate the natural environment. He did not want to "get away from it all" but rather, although bothered by the lack of sensitivity to nature exhibited by some of the few tourists, hunters, guides, and sheepherders he met, advocated bringing more people to the mountains. In the

social and political climate of the times public interest was necessary if parts of the Sierra were to be preserved for future generations.

Sympathetic friends encouraged Muir to bring the wonders of the Sierra to the attention of the nation through his eloquent writing. Beginning in the 1870's, Muir published articles in such national monthlies as *Harper's*, *Scribner's*, the *Atlantic*, and the *Overland*. These articles, and the manuscript correspondence associated with them, serve as the foundation for the text of this new book. The writings have been sympathetically edited by a former editor of the *Sierra Club Bulletin*. In later years, Muir himself edited many of his articles to produce a series of popular books, but, by drawing on the original sources and contemporary newspaper and manuscript articles, the editor conveys much more of the flavor, charm, and immediacy of Muir's first writings.

Books about Muir and ones that use his writings to accompany photographic presentations are numerous, and many are excellent. This book differs from others in that its main purpose is to present John Muir himself, through his writings, as an inquiring scientific naturalist, a gifted if rather romantic writer, and a conservationist. The book is highly successful. The plates, by an able and renowned photographer, have been carefully selected to complement the text rather than the reverse. Unfortunately, the quality of the reproduction of the black-and-white plates is not equal to the standards of readers accustomed to Sierra Club or most other volumes of that format. Editorial annotations include background information on the original sources and historical context of the selected passages and footnotes updating taxonomic nomenclature and place names.

Unlike previous volumes on Muir, this book focuses on writings of 1872 to 1912 dealing with the part of the mountain range south of Yosemite National Park. His descriptions of his ascents of Mount Whitney and Mount Ritter and his exploration of the southern "yosemite" of Tehipite Valley offer some of the best examples of his gently persuasive reasoning, in particular his arguments that ice was the chief agent of erosional modification of the landscape. The giant sequoias of the southern Sierra, whose ecology Muir studied, prompted writings on their esthetic nature and great age and the need for conservation. Out of this writing grew efforts that resulted in the

preservation of many remaining isolated stands in Sequoia and Kings Canyon national parks. It was during Muir's travels south of his Yosemite home that he wrote some of his most charming and able descriptive vignettes—for example, of the water ouzel, the Sierra bighorn, and the theft of his teapot lid by a wood rat.

For the general reader, Muir's perception of ongoing geomorphic processes, his descriptive prose, and his insight into conservation problems make this book enjoyable and timely. For those who are interested specifically in the Sierra Nevada, his early impressions serve as a base line on which to measure the changes that have come about between his time and today, when one may see fishermen standing elbow to elbow at a High Sierra lake on the Fourth of July or be awakened on a frosty morning 40 miles from the nearest road by a low-flying helicopter dangling a freshly painted National Park Service outhouse to serve the throngs of city-bred visitors.

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## Metabolism

**Protein Nutrition and Free Amino Acid Patterns.** Twentieth annual conference of the Rutgers University Bureau of Biological Research. JAMES H. LEATHEM, Ed. Rutgers University Press, New Brunswick, N.J., 1968. 227 pp., illus. \$10.

Publication of a collection of papers in book form four years after the conference at which they were presented is, in this case, worthwhile, although the delay is regrettable. The 13 contributions provide a good starting point for knowledge of the subject, but their authors and other investigators have made important additions to it since the time of the conference.

J. M. McLaughlan, Selma E. Snyderman, L. E. Holt, and their respective co-workers assemble convincing evidence that plasma amino acid distribution in experimental animals and man is altered by the quantity and quality of dietary protein. This is made more significant by Q. R. Rogers and A. E. Harper's demonstration that plasma amino acid concentrations do reflect what is happening in liver and muscle.

H. N. Christensen summarizes his experimental evidence for three distinct