

inference as to intellectual functions drawn from the endocranial cast of the fossil skull found at La Chapelle-aux-Saints. The conclusions regarding the alleged simian characters of the foot in the Chancelade skeleton are difficult to accept in the absence of more detailed comparative studies (particularly if the evidence of a footprint of palæolithic man described by Dr. Casteret from a grotto in the Department of Herault is accepted as valid). The facet on the upper canine of the Talgai skull, which was at first taken to indicate an interlocking tooth of simian type, has been demonstrated by Prof. A. N. Burkitt to be nothing more than a facet of contact with the adjacent premolar tooth. The statement that the dingo in Australia was contemporaneous with *Nototherium* and *Diprotodon* is not based on really secure stratigraphical evidence. Finally, it may be suggested that the invention and use of group terms such as "les Prehominieniens" and "les Presapiens" are bound to lead to confusion of thought, since they involve a certain misuse of taxonomic terminology. It has become abundantly clear during recent years that, in discussions on the evolutionary sequence of the Hominidæ, colloquial terms are to be avoided wherever possible, and only the scientific terms proper to taxonomy employed. The terms 'man' and 'human', for example, have come to assume, in popular usage, a very special connotation, and their rigid exclusion in discussions of the evolutionary origin of *Homo sapiens* would no doubt permit a much more objective approach to this problem and also avoid unfortunate misunderstandings.

I have referred above to "Les Hommes Fossiles" as a classic. Under Vallois's editorship it remains a classic—compendious in substance, clear in style, and judicious in its main conclusions. It is also beautifully illustrated.

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STRUCTURE OF POLLEN

Plant Morphology and Plant Taxonomy

Angiosperms (an Introduction to Palynology, 1). By G. Erdtman. Pp. xii+539. (Stockholm: Almqvist and Wiksell; Waltham, Mass.: Chronica Botanica Co., 1952.) n.p.

THE term 'palynology' was coined in 1944 for the science of pollen grains and other spores, and this recent invention of a name indicates the increasing importance of the subject. Work in this field is proceeding in at least two directions. Pollen grains (and some other kinds of spores) are almost indestructible, so far as their external morphology is concerned, by the ordinary processes of decay as met with under natural conditions. Consequently, they are easily preserved as fossils in peat and other kinds of deposits. During the past two or three decades, the pollen content of peat has been intensively studied in Europe, North America and, to a less extent, in other continents. Spore content of older rocks is also receiving some attention. As a result, the structure of pollen and other spores of existing plants has had to be studied to provide standards for the nomenclature of fossil pollen. Angiosperm taxonomists have long recognized the value of pollen grain characters for classifying genera within certain families such as the Acanthaceæ. Recent researches prove that such characters can be used with advantage much more widely. The careful investigation by improved methods, combined with the examination of the pollen grains of many more species, genera and

families, is providing new and extensive data for consideration by taxonomists.

Dr. G. Erdtman has rendered angiosperm taxonomists a great service in providing them with an up-to-date reference text-book to pollen structure. In this work the families of angiosperms are in alphabetical sequence—an arrangement that makes for easy reference and, for the time being probably wisely, avoids any commitments to a phylogenetic or other scheme of classification. There are excellent and numerous illustrations to illuminate the condensed descriptive text. The diversity of size, form, 'markings' and detailed structure of angiosperm pollen grains is extremely striking as one glances through these illustrations. It may be that a new descriptive terminology is unavoidable when a subject is studied extensively and intensively for the first time. One does, however, wonder if the invention of terms has not been carried to unnecessary extremes by some palynologists. In the glossary of this book more than two hundred terms are defined. The great majority of these have been proposed quite recently with direct reference to pollen morphology and are probably of only very specialized use.

The possibilities of pollen morphology throwing light on 'affinities' are evident in Dr. Erdtman's text. After the description of family pollen-grain characters, and diagnoses of special specific examples, valuable comparisons are made with the pollen grains of other families supposed by a previous author or authors to show relationships with the family under consideration. These comparative statements are matters of fact, not matters of speculation. They must in the future receive due attention in any attempt at a general classification of angiosperm families. In addition, there are significant suggestions that some widely accepted taxa are not homogeneous. It would be very valuable to have a classification of angiosperm families, sub-divided or amalgamated as considered necessary, based solely on pollen grain characters. Such a classification would, of course, be a special one serving limited, though important, purposes. With such a classification one could readily utilize pollen characters for improving a general classification and clearly see the taxonomic limits of palynology.

Taxonomists will look forward to further publications by Dr. Erdtman and to a general summary of the theoretical results of his painstaking researches.

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THE CIVIL SERVICE IN GREAT BRITAIN

The Fountains in Trafalgar Square

Some Reflections on the Civil Service. By C. K. Munro. Pp. x+202. (London: William Heinemann, Ltd., 1952.) 12s. 6d. net.

MR. C. K. MUNRO'S reflexions constitute a sensible, and possibly the most successful, exposition of the nature and mind of the Civil Service that we have yet been given. In a very readable book, which should appeal to the man of science though not especially addressed to him, writing under the name he used as a dramatist, Mr. Munro explains lucidly and easily, not simply the work and responsibilities of the Civil Service, and more especially of the administrative class of the Service, but even more of the outlook and mind of the Civil servant and the circumstances which determine his attitude to and