

demonstrated, the disorganization which would follow a drastic change to a new technique would carry inherent dangers, probably outweighing any benefits likely to result.

Nevertheless, it is always of value to study methods which have proved satisfactory over a number of years, and many pathologists engaged in this work will be most interested in a method which has satisfied such critical observers as the writers.

In the section dealing with ante-natal grouping, the possible alternative to the current practice of ABO and Rh(D) screening, with the customary follow-up of the Rh(D) negatives, is attractive from the point of view of economy in laboratory working. It might, however, be difficult to convince clinicians, and particularly obstetricians, that this economy at the expense of their advance knowledge of their patients' groups would be justified. It is certain that they would argue, as is foreseen by the authors, that obstetric emergencies would not be so well covered.

It would seem that the writers themselves have not adopted this possible alternative in their own practice, having doubtless explored the possibilities and the difficulties which it would entail.

An interesting and informative chapter on cross-matching difficulties encountered in their own laboratory (p. 237) was found to be slightly confusing. For example, of the 2,967 cases involved the donor's blood was not of the ABO group as stated on the bottle in two cases.

Without knowing the total number from which the 2,967 are selected the two wrongly labelled bottles may or may not represent a much higher proportion of error than is considered unavoidable in an earlier chapter.

In any event, some explanation of how these two bottles escaped the rigid checks and cross-checks, described in detail in Chapter 7, where the combined manipulative and serological sources of error are calculated at 1 in 43,000, would be helpful.

Two mistakes of this nature, picked up on cross-match, might represent a total of four such errors in the series, since bottles wrongly labelled O would escape detection by this final cross-matching check.

Minor points, such as these, and the confusion in the description of the anti-U antibody (p. 281) must not be allowed to detract from the value of this book. The subsequent editions, which will assuredly be demanded, will provide opportunity for elucidation and correction.

The bibliography is comprehensive and indicates the degree of care that has been taken in providing a manual which should appeal to pathologists, technicians and indeed to all engaged in blood transfusion work.

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## SCIENCE AND THE HUMANITIES

### History and Philosophy of Science

An Introduction. By L. W. H. Hull. Pp. xi + 340 + 16 plates. (London and New York: Longmans, Green and Co., Ltd., 1959.) 25s. net.

"THIS is not a detailed history of science. It tries to bridge the gap between science and the humanities by considering scientific ideas in a context of history and philosophy." In these words the author describes the object of his work. Few will deny the existence of the gap, or the need to bridge it, and a book of this nature should be welcomed, on

one hand, by those whose training and background have led to an emphasis on technology, and on the other, by students of the humanities who seek to understand the vital contribution of science to human thought. The general reader also will find the author's approach both interesting and stimulating; he anticipates the criticism that "most readers will, no doubt, find too little about some topics and too much about others". He points out that before the spread of evolutionary ideas the influence of biology seems scarcely comparable with that of mathematics and the physical sciences.

The book opens with a review of ancient science covering three periods: the first from the beginnings of science until the rise of Athens after the Persian wars; the second until the Macedonian conquests of the fourth century B.C.; the third period takes the Alexandrians as its theme. This review is comprehensive in relation to the hundred pages allotted to it, and makes interesting and instructive reading. Chapter 4 carries the story through the period of the Middle Ages, with some reference to Arabic contributions.

In the two following chapters, celestial geometry and celestial mechanics are very adequately surveyed from the time of Copernicus to that of Newton. With such fundamental changes in ideas concerning the universe, it is appropriate that a chapter is devoted to "Changes of Outlook and Method", and this constitutes one of the most valuable parts of the book. A separate chapter deals with other scientific developments in the sixteenth and seventeenth centuries, such as the phenomenon of light, and attention is directed to the philosophical thought of Berkeley and Hume.

The chapter "The Nineteenth Century and Evolution" introduces the reader not only to Darwinian theory and its implications but also to its significance in the development of thought. In an "Epilogue" which includes the theme of twentieth-century trends, the author gives a warning which it is to be hoped, in the interests of both science and the humanities, will not fall on deaf ears. "It is urgently necessary to restore the unity of intellectual life. Unless we do so, we shall soon lose what is best in Western civilization."

H. D. ANTHONY

## INDIAN PREHISTORY

### The Pre-historic Background of Indian Culture

By D. H. Gordon. (Sponsored by Bhulabhai Memorial Institute.) Pp. xi + 199 + 32 plates. (Bombay: M. D. Desai, 1958. Distributed by N. M. Tripathi (Private), Ltd., 1958.) Rs. 20.

UNTIL recent years the study of the archaeology of the Indian peninsula has woefully lagged behind that of some other parts of the world. Especially is this so in the case of its prehistory. It is true that isolated finds of stone implements have been made from time to time during the past one hundred years—and in this connexion the name of Bruce Foote in Madras has an honoured place—but it is only recently that it has become possible to piece together an overall picture of the successive cultural phases in India, and even now the gaps in our knowledge are more than numerous. The subject is complicated since India seldom presented a uniform picture. Even in very early times the Madras area formed part of the vast Chelleo-Acheulean complex,