

SCIENCE IN ARCHÆOLOGY.

Manuel de Recherches préhistoriques. Issued by the Société préhistorique de France. Pp. 332; with 205 figures and 4 plates. (Paris: Schleicher Frères, éditeurs, 1906.) Price 8 francs.

LAST year an eminent English Egyptologist published a handbook for excavators, with especial reference to Egypt, and remarked in his preface that "a complete archæological training would require a full knowledge of history and art, a fair use of languages, and a working familiarity with many sciences." The present work embraces a large number of subjects that should be familiar to the practical archæologist, especially if engaged in field-work on French soil.

The manual is issued by the Prehistoric Society of France, and has been written by several of its leading members. Taken in conjunction with the first congress of the society, held in the autumn at Périgueux, it indicates a widespread interest in the remote past as represented by flint implements, cave deposits, dolmens, and Gaulish burials. Of recent years, more and more emphasis has been laid on the need for systematic excavation as opposed to haphazard relic-hunting by amateurs; and this publication is intended, not only to assist the explorer in his search for records of the past, but also to render them accessible and self-explanatory when found. Private interest and personal feeling always stand in the way of corporate action in such investigations, but much would be gained if the advice contained in this manual were followed by the depredator, if only for his own ends. To put it on the lowest ground, relics accurately labelled and located gain enormously, not only in scientific, but also in market value; and if archæology is to justify its claim to be regarded as a science, scientific exploration must be the rule, and not the rare exception.

The chapters are all much compressed, and none can be singled out as more important than another. There are instructions for all the ordinary branches of exploration in a most compact form; but in spite of the French tradition, we venture to think that the volume would have been even more practical if published in a light but stout binding. A handbook in a paper wrapper is hardly fit for use in the field. Attention may be directed to the method of hardening and preserving skeletons and other bones by means of silicate of potash, and to the practical advantages of the process advocated for preserving iron. This metal is the scourge of museum curators, and neither the soda nor paraffin treatment has proved altogether successful. The simpler, and apparently the more satisfactory, method is to allow the metal to dry for several hours after brushing in water, and then to heat it to a dull red; if allowed to cool slowly, the object should then be rust-proof, and the surface clean and firm.

One of the most useful features of the manual is the table for computing the height of a subject from various bones of the skeleton; this method would no doubt greatly reduce the number of 7-foot skeletons

found even in this country. Another point on which emphasis is laid is the desirability of photographing dolmens, menhirs, and other antiquities of the kind precisely from the four cardinal points; picturesque views are dear to the ordinary photographer, but are of little value for purposes of comparison. On this point a caution should have been given as to the difference between the true and magnetic north, as accurate compass bearings of megalithic monuments may often prove of considerable importance.

The student of prehistoric archæology in France and elsewhere will be glad to find the various classifications of the Stone age brought together, even if no attempt is made to coordinate them. The most important are those of Mortillet, Piette, Salmon, Boule, and Rutot, and in the last mentioned occurs (as occasionally elsewhere) the irritating term "Forest Cromer bed." Among the few cases where no scale is indicated for the illustrations is that of the Pressigny nucleus (Fig. 74); the extraordinary size of these flints ought surely to have been stated. Finally, it is somewhat of a shock to the orthodox to find the following item in the glossary at the end:—" *Bulbe de percussion.*—Mot impropre (voir *Conchoïde*)."

OUR BOOK SHELF.

Smoke Abatement: a Manual for the Use of Manufacturers, Inspectors, Medical Officers of Health, Engineers, and Others. By William Nicholson. Pp. xiii+256. (London: Charles Griffin and Co., Ltd.) Price 6s. net.

THE author of this handbook is chief inspector to the Sheffield Corporation, and seems to have an extensive acquaintance with the various enactments that have been passed in this and other countries with a view to ameliorate one of the greatest nuisances of modern times, and devotes more than a third of the 250 pages the book contains to their recital. This is undoubtedly useful to those desiring to make themselves acquainted with the legal aspects of the case, but scarcely justifies the subtitle of a "practical handbook," as the author's idea of the nature of smoke is of a most delightfully rudimentary character, and his power, therefore, of prescribing remedies necessarily limited. On searching the book for a clear definition of smoke and a description of the constituents that go to build it up, we find on p. 12 the following:—"Nature of the Nuisance—Smoke consists of minute particles of carbon together with a sticky tarry matter which settles and sticks to everything it comes in contact with. It is dirt. Lord Palmerston's definition of dirt from a health point of view is 'Matter in the wrong place,' and carbon or coal in the atmosphere is matter in the wrong place."

One of the chief remedies suggested by Mr. Nicholson is that the Sanitary Institute should now deal with the question, and arrange for courses of lectures on the subjects of "Smoke and the Injury therefrom," "The Causes of Smoke," and "The Practical Prevention of Smoke," after which examinations should be held, and "certificates of competency given to all who satisfy the examiners." The result of this is foreshadowed by the author as follows:—

"If such facilities were offered, hundreds of engineers and others would avail themselves of them, and would not rest satisfied until they had procured a smoke inspector's certificate, which would become as popular and as valuable as the sanitary inspector's