The Origin of European Civilisation.

The Ægean Civilisation. By Prof. Gustave Glotz. (The History of Civilisation Series.) Pp. xvi+422 +4 plates. (London: Kegan Paul and Co., Ltd.; New York: Alfred A. Knopf, 1925.) 16*s.* net.

THE oldest European civilisation was born in Crete and spread thence throughout the Ægean basin. In the discovery and re-creation of this civilisation, Englishmen and Americans have taken the lead. Yet, curiously enough, no really complete and well-documented account of it has been available in English. The translation of Prof. Glotz's French work by Messrs. Dobie and Riley therefore fills a real gap. Glotz evokes a vivid picture of Minoan life in all its aspects—social, industrial, commercial, religious and æsthetic. Incidentally he shows how the Greeks, and so the whole western world, were indebted to their prehistoric forerunners: Cretan enterprise discovered the routes to the Euxine, to Asia Minor, to Sicily and to Italy that Hellenic traders and colonists followed; the olive and the fig were cultivated in the great island long before the northerners reached the Ægean; the athletic contests and dances which played such a prominent part in Hellenic life had roots in the Minoan age, and, long before Terpander and the Phrygians, the notes of the seven-stringed lyre and the flute had resounded in the halls of Hagia Triada.

Of course, were the work intended strictly as a text-book for students, the very qualities of vividness and symmetry which make it such fascinating reading might be reckoned as defects. Glotz gives us in lively and unitary form his own interpretation of the archæological material, without, as a rule, cumbering his pages with contrary views. But, since the interpretation of such material is always debatable, he is thereby committed to a series of assertions which will, to many, often seem questionable hypotheses. Let us, therefore, hasten to state that the unfortunate criticism of Sir Arthur Evans's chronological scheme in the first chapter is no fair sample of these hypotheses. In fact, despite his alleged preference for the clumsy system of Franchet, Glotz, like all practical workers in the field, is fain to adapt his exposition to Evans's nine periods, and elsewhere his views are backed by good authorities.

The rapid progress of Ægean archæology is conveniently revealed by two long sections of addenda (there will be room for a third when the English translation reaches a second edition), while the utility of the English text has been greatly enhanced by the translators' admirable index. Perhaps, however, for the benefit of the general public, forms like *Kirke* and *Kerkyra* might have been glossed.

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Evolution and Biology.

Evolution and Genetics. By Prof. Thomas Hunt Morgan. Pp. ix+211. (Princeton: Princeton University Press; London: Oxford University Press, 1925.) 9*s.* net.

THIS little book originally appeared in the form of four lectures given at Princeton University in 1916. After three reprintings a new edition has been called for. The author has responded by revising the book and giving it a new title, breaking the contents up into thirteen chapters, including a new chapter (previously published elsewhere) on the non-inheritance of acquired characters, and another short chapter on human inheritance. It is an excellent discussion of evolutionary theory on the basis of the more recent discoveries in genetics and mutation. The case against the inheritance of acquired characters is very cogently stated.

If one might criticise so lucid and well-documented a book, it would be to point out that mutation is considered almost entirely from the zoological point of view, but perhaps that is inevitable. A point on which biologists will probably not all agree with Prof. Morgan is in his interpretation of the biogenetic law. He says (p. 28): "I venture to think that these new ideas and this new evidence have played havoc with the biogenetic 'law.'" Citing the case of the gill slits in the embryos of the chick and of man, he agrees that they represent the same structures as the gills of a fish, but he goes on to suggest that "the mammal and bird possess this stage in their development simply because it has never been lost." This seems entirely unexplanatory. In the adult frog, as is well known, they have been lost, even though before metamorphosis the gills are fully functional. Is it not more reasonable to suppose that the tadpole represents a stage which is terminal in the fish but is not terminal in the amphibian, because the stages of lung development were added later in connexion with their transmigration to land? That mutational changes 'cut across' these developmental changes does not nullify the significance of either, because, as was pointed out a decade ago, a mutation is a change which is definitely represented in every cell of the mutated organism. However, the interpretation of recapitulation is a subject on which biologists may continue to disagree.

Prof. Morgan's book deserves to be widely read as a concise summary of several active fields of evolutionary investigation, by one who has contributed largely to the present point of view, and whose work on crossing-over, in particular, has been of immense significance.

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