

Design of Reinforced Concrete

By Dr. Boris W. Boguslavsky. Pp. viii + 428. (New York and London: The Macmillan Company, 1956.) 42s.

THIS book has been written mainly for the young designer of reinforced concrete and would be very suitable for technical college evening classes were it not based wholly on American practice. This very seriously detracts from its value to the British student, who finds changing methods and notation a very serious handicap with reinforced concrete design work, and who, moreover, requires to be trained in British practice for his various examinations.

The simplicity of approach is rather overdone for the university undergraduate in Britain, who normally has a good grounding in strength of materials and in theory of structures before starting on design work, and would be able to work more easily from his basic knowledge than from some of the elaborate formulæ evolved. That, combined with the purely American practical angle, would weigh heavily against its recommendation as a text-book for British university students, although no doubt it would be very suitable for their opposite numbers in the United States, whose approach is rather different, and who naturally wish to be familiar with the regulations of the American Concrete Institute.

Starting with elementary theory of structures, and progressing, with an eye to practice, through the design of simple reinforced concrete elements, the student is led to the design of a reinforced concrete building by easy stages, with a small amount of work on arches and pre-stressed beams *en route*. There are many detailed illustrative examples throughout, most of which are simple and easy to follow, in the light of American methods; but prestressed beam design, being wholly on non-bonded post-tensioned cases, would be very misleading to British students. On the whole, this is a book for students in the United States, or for the already knowledgeable in Britain who wish for a glimpse of American practice.

J. W. H. KING

Androgens

Biochemistry, Physiology, and Clinical Significance. By Prof. Ralph I. Dorfman and Prof. Reginald A. Shipley. Pp. xvii + 590. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1956.) 108s. net.

IN the foreword to this book, Warren O. Nelson rightly directs attention to the far-reaching significance of androgenic function; so vast has the literature on this subject become (as, indeed, on many other endocrine subjects) that the need for a truly comprehensive monograph has long been felt by a wide circle of clinicians, biochemists, biologists and others. This is the first and only publication devoted specifically to the androgens, and it has been conceived on a large scale; a glance through the contents, which, in fairly small print, alone covers nine pages, is sufficient to carry conviction on this point.

After a brief introduction, which also sketches the historical background, the second part deals with biochemistry, including an extensive section on the metabolism of androgens. Part 3 is devoted to the physiological effects of androgens, and Part 4 to clinical aspects. Finally, there are important appendixes. The first of these gives the names and structural formulæ of 225 compounds of significance to this subject; each is numbered, and at each

mention in the text the number is given—a most valuable reference device. The remaining appendixes are concerned with the techniques of androgen determination, chemically and biologically.

Obviously, workers in many disciplines may find valuable information in this book, which has a good index, extensive bibliographies at the end of each chapter, and large numbers of tables and figures. Though perhaps mainly a work of reference, the clinical section is certainly very readable, the others—inevitably—perhaps slightly less so.

G. I. M. SWYER

Ceramics for the Archæologist

By Anna O. Shepard. (Publication 609.) Pp. xii + 414. (Washington, D.C.: Carnegie Institution of Washington, 1956.) Paper bound, 6.75 dollars; Cloth bound, 7.75 dollars.

FOR many a year, archæologists have been trying to make common ground with scientists versed in the special techniques of importance for analysis of the results of work in the field. Here is an excellent example of such co-operative thought applied to ceramics. But Miss Shepard has achieved more than that. She has welded, so to say, the 'know-how' with just the requisite amount of æsthetic theory (for example, problems of proportion, shape, tangency relations and so forth) to lift the subject well out of the range of mere 'doctoring' and *ad hoc* solutions.

It is possible, however, that the physicist and chemist would wish to refine their methods a little further, in which case some reference to the microscopical processes and instrumentation associated with the names of Schneiderhöhn and von Federov would have been helpful; these developments being particularly well suited (within their own limitations) for the examination of opaque sections, and even of curved fragments, without any trace of destructive testing. Given adequate illumination, classical optics, in modern guise, could render still further assistance to workers in archæological enterprise.

F. I. G. RAWLINS

The Elementary Particles of Nature

Prepared by Dr. D. K. Butt, Dr. E. G. Michaelis, Dr. G. L. Miller and Dr. P. T. Trent. Pp. 19. (London: Science Information Service, 1956.)

THE purpose of the very useful set of notes contained in this pamphlet is to present a simple but informed account of the now numerous particles, including the unstable forms of matter, the mesons and hyperons, which are studied extensively to-day and which constitute the basis of nuclear physics. The notes have been prepared by four young and active workers in this field, but they have taken care to avoid too much detail and technicalities and to express the main agreed results in a form which teachers in colleges and schools in particular will find most valuable. In 1930 the number of fundamental particles required to describe matter was no more than two, the proton and the electron, but following the discovery of the neutron in 1932 and the μ -meson in 1935 the number of 'elementary particles' has continued to increase and no less than twenty-four are listed in the pamphlet. These do not include the anti-neutron the existence of which was verified too recently to receive mention. Brief reference is made, however, to the anti-proton, which was identified with certainty towards the end of 1955.

S. WEINTROUB