

SMITH (G. F. HERBERT). *Gemstones*. Fourteenth edition (revised by F. C. Phillips). London (Chapman and Hall), 1972. xii + 580 pp., 138 figs., 29 pls. (6 in colour). Price £7.50.

This is the 14th edition of a standard work first published in 1912. The 13th edition, also revised by F. Coles Phillips, was published in 1958 by Methuen price 50s. The 14th edition has 20 extra text-pages, but the most obvious change is the inclusion of 12 very beautiful colour photographs of gemstones, and the deletion of 4 colour plates, produced from paintings, which appeared in the 9th edition of 1940 and in subsequent editions up to that of 1958.

Part I (121 pp.), which deals with the physical characters of gemstones in ten chapters, has few changes.

Part II (114 pp.), Technology and History, in 8 chapters, is extended by 8 pages. Chapter XIV (23 pp.) on synthetic stones has been improved; Section B (9 pp.) on synthetic corundum now includes information on growth from solution, both by flux fusion and hydrothermally; Section D (5 pp.) on synthetic emerald considers new techniques for emerald synthesis, and has a very useful table on the physical properties of emeralds, both natural and synthetic.

Part III (278 pp.), Description, has been extended by 17 pages. Chapter XXI (6 pp.) on the origin of diamond has been expanded by 2 pages and partly rewritten, taking into account recent work on geochemistry of mineral inclusions in diamond. Chapters XXXI (12 pp.) Quartz, XXXVI (6 pp.) Chalcedony, and XXXVII (13 pp.) Jade, Lapis-Lazuli, and Turquoise have been revised.

Part IV (16 pp.), Identification Tables, has been improved by rearranging minerals in alphabetical order to permit easier reference. The bibliography (12 pp.), which is admirable, is classified into 12 sections as in the 13th edition, and has been extended by the addition of 50 new entries to include works published up to 1972.

R. S. COLLINS

SHEPHERD (WALTER). *Flint: its origins, properties and uses*. London (Faber and Faber), 1972. 255 pp., 68 figs., 33 pls. Price £5.00.

A whole book on flint is something of a curiosity, and one wonders who is going to be sufficiently interested to pay £5.00 for it. At this sort of price the buyer is going to be a serious student, not someone looking for light entertainment. Therefore the publishers would have served the author better if they had done more editing, and given him more guidance. It is not the frequent chatty diversions and footnotes in the style of Ripley's 'Believe it or not!'; nor the whimsical comparison of flints with El Greco paintings or Henry Moore statues; nor even the promiscuous mixture of metric and English units. It is the lack of an abstract containing the author's conclusions on the mode of formation, the distinction between patination and cortication, and similar topics. There should have been a chapter on the chemistry of silica; as