

BOOK REVIEW



Ruby & Sapphire: A Gemologist's Guide. Richard W. Hughes with Wimon Manorotkul & E. Billie Hughes. Bangkok: RWH Publications/Lotus Gemology, 2017. 816 pp, more than 1000 color illus., 11" x 9-1/2". \$200

Reviewed by Eric J. Hoffman

Red rubies and blue sapphires are the precious gem varieties of the mineral corundum. Admired and coveted since before the dawn of history, these gorgeous stones are among the hardest natural substances known, exceeded only by diamond on the Mohs scale of hardness.



Burmese sapphire Buddha, © Fred Ward

Richard W. Hughes is one of the world's leading authorities on the history, identification, and appraisal of rubies and sapphires. Together with his wife and daughter, skilled gemologists and gemstone photographers in their own right, he has produced this companion to his 2014 book on the subject, "Ruby & Sapphire – A Collector's Guide." Monumental in size and encyclopedic in scope, his latest book represents more than 40 years of serious research, study, and firsthand experience.



Inscribed "Royal" Balas ruby (spinel), The al-Sabah Collection, Kuwait

The book opens with a 26 page "gallery" of gorgeous full-page photographs, to whet the reader's appetite. The final roughly one-third of the book is a country-by-country review of world sources, from Afghanistan to Zimbabwe. In between lies the broadest and most detailed information on ruby and sapphire you could ever hope to read. Here you will find chapters on the stone's history, chemistry and crystallography, physical and optical properties, color, inclusions, treatments, synthetics, assembled stones,

geology, and cutting methods. A “Connoisseur’s Guide” provides detailed and helpful advice, including the elements of quality, the influence of lighting, and pricing information. Here, too, is a 16 page table summarizing the historically most important rubies, sapphires, and (for good measure) spinels. All of this is ably backed up with more than 1000 crisp, detailed color photos, maps, drawings, and an incredible 3500 references. Any one of these chapters could have been a book in itself; the History chapter was especially fascinating to read.



Madagascar sapphires, photo courtesy Lotus Gemology Collection

Several chapters are co-authored by additional experts in the field. For example, the chapter on color includes three co-authors. This chapter, 61 pages long, is a good example of the level of detail in this book. It begins with an introduction to color and its perception, almost a college course in itself. It then drills down to what is important for rubies and sapphires: trace elements, absorption,

transmission, chromophores, non-visible spectra, luminescence, and pleochroism, along with helpful guidance on using a hand spectroscope. The other chapters are equally comprehensive.

The final 282 pages— fully 35% of the total page count— comprise the country-by-country review of world sources. Here we find detailed discussions of corundum from 53 countries, including localities, mining methods, characteristics of the local stones, hints for identification, and more. Of course some countries (Burma, Sri Lanka, Thailand, India, Madagascar, for example) receive more extensive discussion than others (Bolivia, say). Mr. Hughes has visited the gem sources in nearly all of these countries, traveling through jungles, to mountaintops, and to mine bottoms for our edification. He seasons this gem travelogue with entertaining stories, some of which would give Indiana Jones the willies.



Dickson Yewn Mozambique ruby ring, photo: Gemfields

An unusual feature of this hefty book is the inclusion of a few “Special Sponsor Sections,” essentially advertising from very high end suppliers. The stones pictured in these glamorous full-page ads contribute in a decidedly positive way, and the ads reduce the cost of producing this hefty book.

This book is unquestionably the definitive reference on rubies and sapphires. Although massive, the book is very readable and leavened throughout with interesting quotes, mini-stories, and sidebars with helpful advice. It should be read by gemologists, gem historians, high-end jewelers, and collectors of these stones. “Ruby & Sapphire -- A Gemologist’s Guide” is available from Lotus Gemology Co., Ltd., Bangkok, www.lotusgemology.com.



Rare sapphire cameo, photo: British Museum