



***Fleisher's Glossary of Mineral Species 2022* by Malcolm E. Back. Published by the Mineralogical Association of Canada as Education Publication Volume 1. 431 pages; 2022; \$45 plus shipping from the Mineralogical Association of Canada, www.mineralogicalassociation.ca (spiralbound).**

Robert B. Cook

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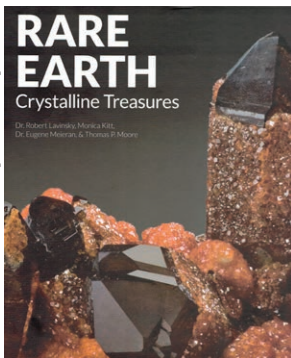


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mineral collector's library, and, had I not received my review copy gratis, I would gladly dislodge my moth-infested wallet, find two moldy Franklins, and buy a set. I highly recommend this monumental work.

Dr. Robert B. Cook
Auburn University
Auburn, Alabama

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Rare Earth: Crystalline Treasures by Robert L. Lavinsky, Monica Kitt, Eugene Meieran, and Thomas P. Moore. Published by The Arkenstone; order from iRocks.com. 85 pages; 2022; \$60 plus shipping and handling (hardbound).

This interesting book, which treats mineral specimens as nature's works of art, was published to accompany the special loan exhibit that was on display at the Santa Barbara Museum of Natural History from 10 June through 15 September 2022. Consisting of approximately fifty specimens and several related jewelry items from the collections of Dr. Rob Lavinsky and others, the exhibit was designed with an emphasis on the value of a better understanding of where our mineral resources originate and the enhanced value of certain minerals that are considered as items of art when found in unusual, beautiful, and aesthetic specimens. The exhibit concept is for it to periodically move on loan from museum to museum on a regular basis, with *Rare Earth* becoming its unofficial gallery guide of sorts.

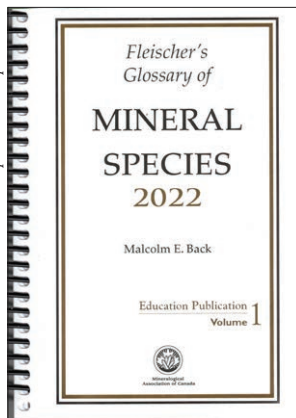
The book begins with a short essay, "Perspectives," that sets the nature-as-art theme of the sections that follow. A preface precedes chapters that begin appropriately with "Minerals as Art." "Native Metals—Crystallized Examples of Essential Metals" comes next followed by "Raw Materials of Art and Civilization." Chapters on the "Origin of Gemstones," "The Value Paradox," and "The California Connection" round out the major sections. Each is well illustrated with appropriate color photographs—many of which are full-page—of specimens carefully selected to illustrate the chapter theme. A Wendell Wilson tourmaline pocket painting is used to illustrate the original location of a particular specimen in the Jonas mine, Minas Gerais, Brazil. Near the end of the book, 18 pages contain expanded captions for each character illustration pointing out important aspects of each specimen. The book closes with a short section on "Mineral Evolution," recommended reading, a description of the Lavinsky China Collection, an afterword on the Santa Barbara Museum of Natural History, part of an earlier article titled "Discover the New Art Class of Natural Treasures," and a bibliography.

The layout and design by Monica Kitt are well done as are the various text sections and illustrations by contributing authors and photographers, respectively. Printing and binding are good. There is an incorrect attribution with respect

to *Rubellite* in the bibliography. In keeping with the tendency to name superlative specimens, two worthy candidates have been somehow ignored: "The Lily Pads" (specimen 43) and the "Green Alien" (specimen 44) who glares at the reader from the following page. *Rare Earth* is clearly a well-conceived exhibit guide and serves to document what the admiring visitors are viewing as they move from specimen to specimen. The book is a little expensive at \$60, a price that no doubt reflects the time, effort, and cost of printing. For those who missed the book at the Santa Barbara display or who plan to attend future exhibitions, it is well worth the cost.

Dr. Robert B. Cook
Auburn University
Auburn, Alabama

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Fleisher's Glossary of Mineral Species 2022 by Malcolm E. Back. Published by the Mineralogical Association of Canada as Education Publication Volume 1. 431 pages; 2022; \$45 plus shipping from the Mineralogical Association of Canada, www.mineralogicalassociation.ca (spiralbound).

It was fifty-two years ago that the first edition of the *Glossary of Mineral Species*—compiled by Michael Fleisher and evermore to bear his name—was published by the then-new journal *Mineralogical Record*. It was initially a thin but very useful alphabetical listing of known mineral species with chemical compositions and little else. It clearly filled the need for quickly available fundamental information by collectors and professionals a half-century ago. Not so today. Through progressive upgrading and expansion of compiled information, particularly by present author Malcolm Back, the quaint first glossary has become, in its 13th edition, a 431-page reference work containing a myriad of important mineralogical information.

The book begins with a dedication and a short preface by author Back. An introduction follows that contains an explanation of terms, a tabulation of naturally occurring elements and their abbreviations, a list of technical abbreviations used throughout, and a long and useful list of references and their abbreviations as used in the text.

The alphabetical listing of all mineral species accepted by the International Mineralogical Association (IMA), as of 31 October 2021, begins on page 1 with abellaite. Accompanying mineral names are compositional and symmetry data, type localities, and occurrence classifications, IMA acceptance data, best or defining reference, and notes relative to elated and similar species. After 316 more pages of necessarily small print we arrive at the end of the mineral listings with everyone's favorite, zykaite. At the time of publication

there were approximately two hundred mineral species accepted by IMA for which defining information had not been yet published. These are tabulated alphabetically in the section that follows.

Compiling and periodically revising alphabetical listings of several thousand minerals would appear to be simple work compared to rearranging and combining them into related groups based on compositional and structural features. An alphabetical listing of groups, related subgroups, and series begins on page 324 with the Acanthite Group and ends on page 421 with the Zippeite Group. Each member is given by name, formula, and in some instances crystal system where appropriate. One family of species, the sulfosalts, is pesky and resists efforts at simple classification and grouping. This has resulted in an IMA Sulfosalt Committee, whose current work on sulfosalt systematics is presented as the closing section of the *Glossary*.

The *Glossary* has, of course, become an indispensable reference for the serious mineral collector and professional mineralogist. For a volume of its type, it is unusually well prepared and edited. There will, no doubt, be those who carefully search its thousands of pieces of data for errors, and, of course, a few will be found. However, as in the past, the percentage of errors to total information will be tiny indeed, and a tabulation of serious issues will be taken into account in future editions, the next anticipated to appear in about four years. As the science and overall popularity of mineralogy grow, so will the *Glossary*, as well it should. It is a good buy at any price.

Dr. Robert B. Cook
Auburn University
Auburn, Alabama

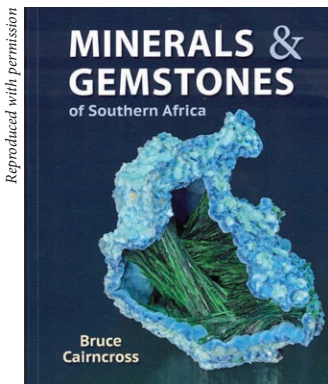
and occurrence details. There are an amazing 878 figures, all but one in color, and most illustrating mineral specimens or cut gemstones.

The book begins with a brief introduction that sets the stage for this modern treatment of a dauntingly large and complex area, one that includes some of the most prolific and important mineral deposits known. These include the gold deposits of the Witwatersrand; diamond fields of South Africa, Lesotho, and Botswana; Tsumeb and the Erongo Mountains of Namibia; the Bushveld Complex of South Africa; and many others. This is followed by a descriptive section that explains the geography and general geology of the region. Useful geographic and geologic maps are included here as well as individual treatments of each of the seven countries making up southern Africa. A good feel for each country is given through a series of locality photographs.

The meat of the book—some 276 pages containing the alphabetical descriptions of almost 150 minerals considered the most important in the region—is given in the next chapter: “A to Z of Minerals and Gemstones.” Beginning with aegirine and ending with zircon, most species are familiar to collectors, with a sprinkling of relatively rare though regionally distinctive species such as nambulite and jeremejevite scattered throughout. Each mineral’s description includes a country-by-country discussion of the most important localities at which it is found. Most descriptions are accompanied by one or more photographs illustrating enticing variations in crystal morphology, characteristic habits, and color, or of cut stones of those species represented by gemstone-producing families. The treatments of quartz and diamond are particularly well done, as are beryl, topaz, and calcite. The book closes with acknowledgments, references and further reading, and a comprehensive index.

Cairncross’s love of both minerals and photography shines through in this wonderful work. Many of the specimens and illustrations are his own; however, as the acknowledgments indicate, there are numerous other sources of specimens, cut stones, and their photographs. The gemstone photographs of Mark Mauthner are noteworthy. Regardless of source, the illustrated specimens and their photographs are of uniformly high quality. The text is clearly written and well edited, and Cairncross has done a good job resisting the temptation to overemphasize some of the more famous and historically productive localities. The paper quality is high, the printing good, and the binding reasonably tight. For those interested in minerals from important but far-removed localities as well as exceptional photographs of specimens and related gemstones, this book is a must-have. It is highly recommended.

Dr. Robert B. Cook
Auburn University
Auburn, Alabama



Minerals & Gemstones of Southern Africa by Bruce Cairncross. Penguin Random House South Africa and StrunkNature, www.strunknatureclub.co.za. 320 pages; 2022; R450 (about \$27 US) (softbound).

Minerals & Gemstones of Southern Africa is the latest offering by now-prolific mineral author Bruce Cairncross, emeritus pro-

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essor at the University of Johannesburg. This lavishly illustrated book covers the most interesting minerals and gemstone occurrences in Botswana, Eswatini, Lesotho, Namibia, South Africa, southern Mozambique, and Zimbabwe. A wide selection of species is covered including important rock-forming silicates, ore minerals, zeolites, and rare and unusual minerals for which certain localities are noted. Those minerals that lend themselves to the gem trade are included under relevant species descriptions. Each mineral’s discussion covers fundamental properties, historical data,