

### **Rare – The High-Stakes Race to Satisfy Our Need for the Scarcest Metals on Earth**

By Keith Veronese. 2014. Prometheus Books, 59 John Glenn Drive, Amherst, New York, USA, 4228-2197. 270 pages, 25.00 USD, Cloth.

Geology and mining do not necessarily come to mind when thinking about books for those interested in natural history. This book is sure to satisfy one's curiosity surrounding the lesser known and increasingly more desirable elements in the periodic table. The author discusses a variety of "rare" metals and elements (tantalum, lanthanum, thorium, etc.) and explains their distinctiveness and usefulness in today's changing social and technological world. Although the book description gives the impression that only the rare earth elements will be explored, more commonly known elements such as gold, platinum, and uranium are also discussed. This book is not geared towards geologists or any vocation in particular, but rather towards people who have a desire or general interest in learning more about rare minerals. This book provides an assortment of information about important rare elements including, but not limited to, their chemical properties, historical background/importance, and political/geographical/economic impacts in the present and future world.

The book did not seem to follow a specific plan or formula in regard to each different element that it discussed, although it does succeed in touching upon the

most important and interesting facts for each element. If certain subject matters are not as captivating to the reader, the subject matter changes quickly and does not dwell on one topic for long. The book is well researched, with extensive references and notes. It is an easy read and even the more technical aspects are well-written and explained. The author references very current events and also well-known fictional movies, which suggests that the book is also meant to be a little light and enjoyable, and not completely business.

The middle of the book has eight pages of colour photos; however, many of the photos are not referenced in the text and do not seem to have any correlation, or act as a direct visual aid, to the text in the book. There is also a thorough index included which is obviously useful in tracking down specific information. The book is relatively short and broken down into small chapters for an easy read.

A reader from the environmental audience is sure to note that there are significant potential environmental impacts with the growing demand for these metals, especially the locations in the world these metals are situated (geography and politics). The environmental

impacts surrounding the mining of these metals is not the main focus of the book; however, there is enough evidence given to appreciate and have concern over the impact on the environment in the different regions of the world.

This work is generally very informative and leaves the reader with a better understanding of the multi-

disciplinary significance of some of the increasingly important and lesser known elements. Anyone with any interest in geology will enjoy it and learn from it, as well as people interested in the global environmental issues of today and tomorrow.

JASON SHAVER

231 MacDougall Street, Thunder Bay, ON, Canada, P7A 2K4