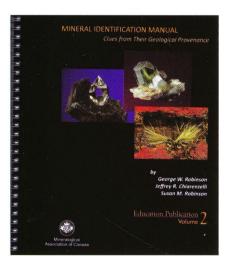
imens illustrated are not fluorescent. Later in volume 3, a chapter covering thin-section photomicrographs of Franklin ores contains beautiful photography pertaining to a subject often ignored by mineral collectors that shouldn't be. I wish there were more coverage of this kind, when appropriate, in the literature on specimen mineralogy.

The work closes with an index, certainly necessary in such a monster publication, and you will use it!

Overall, the production is of a very high quality, with excellent color rendition throughout (a particular challenge with fluorescent photography), and the layouts are easy on the eye. I have only one real complaint: the set makes extensive use of abbreviations, with a table provided to decipher them, but this forces a serious reader such as myself to constantly consult the table to find out who owns a particular specimen or who a particular photographer was. While the casual reader won't be bothered by this, I have to assume that most of those who will purchase this book will want easier access to that information.

This massive work is a must-have for any serious mineral collector, despite the massive amount of shelf space it consumes. If you are not particularly familiar with Franklin's minerals, your reaction to this book might be similar to the great Lawrence Conklin's reaction to the Sterling Hill Mining Museum: he said he found it "surprisingly good." I think, however, that for those of us who are more familiar with the wonders that come from Franklin, the reaction will be that this work is "unsurprisingly great."

Chris Stefano



## Mineral Identification Manual: Clues from their Geological Provenance.

by: George W. Robinson, Jeffrey R. Chiarenzelli and Susan M. Robinson. Published (2022) by the Mineralogical Association of Canada, Education Publication, Volume 2. CAD \$55 +shipping at www.mineralogicalassciacion.ca

As a young geology student, I learned mineral identification as it has always been taught: studying dusty, nondescript samples completely out of context, with nothing to help except for my handy determinative table of minerals and some basic tools for determining physical properties. By the time I graduated, I'd gotten relatively good at mineral identification, in part because I'd started collecting minerals, and after all "the best geologist is the one who has seen the most rocks!" The other key thing that let me get ahead of my fellow students in the arcane art of mineral identification was that I had developed a keen appreciation of geological environment as an important clue to what I had in my hands. Over the years, I've noticed that other geologists who are really good at mineral identification always ask at once, when handed an unknown sample, some version of the question "Where was this found?"

Where a specimen came from is a tremendously valuable piece of information because minerals are products of their environment, and so most minerals only occur in certain types of geologic environments. All skilled geologists know this, and yet most mineral identification manuals I've seen over the years seem to downplay or even omit the question of geological context, focusing on determinative tables instead.

Robinson *et al.* have bucked that trend, having written the first mineral identification manual I'm aware of that is built around the idea of geological context. Rather than starting with determinative tables and then asking you to check provenance after you think you have an identification, the manual starts with asking you to determine provenance, then sends you to a determinative table tailored for that environment. This method greatly reduces your options and makes identifying an unknown specimen much easier.

Each chapter of the book deals with a different geological environment, briefly explaining what the environment is, showing pictures of rocks from such an environment, and listing famous localities which typify the environment; pictures of common minerals from the environment provide reinforcement. The chapter ends with a determinative table for the environment, and you can go about your mineral ID efforts in the classical way from there: testing for hardness, cleavage, etc.

This book is clearly designed to be both utilitarian and inexpensive. The binding is

wire coil, making it easy to open the book to a specific page and fold over so that it stays on that page while you do your streak test or search for cleavage with your hand lens. The pages are printed on plain paper, which means that the photos do not have the glow they would have if printed on glossy paper—this is not meant to be a beautiful coffee table book. In this format you can easily see the information that the photos are meant to convey, and the plain paper keeps the book relatively affordable.

The authors clearly assume that you've read other mineral identification manuals (a safe bet if you're buying this, I expect) and so they do not extensively explain how to use determinative tables, opting instead for quick instructions together with relatively quick summaries of mineral properties. If you are new to mineral identification, this probably shouldn't be your first manual. That said, however, it NEEDS TO BE YOUR SECOND!

Overall, this is a must-have for serious mineral collectors or geology students who wish to hone their mineral identification skills. Having seen the book now, I am shocked that it didn't already exist. A hearty thanks to the authors for producing this long overdue contribution!

Chris Stefano

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