Crystallized Microminerals of the Lake Superior Native Copper District

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The annual New Mexico Mineral Symposium provides a forum for both professionals and amateurs interested in mineralogy. The meeting allows all to share their cumulative knowledge of mineral occurrences and provides stimulus for mineralogical studies and new mineral discoveries. In addition, the informal atmosphere encourages intimate discussions among all interested in mineralogy and associated fields.

The symposium is organized each year by the Mineral Museum at the New Mexico Bureau of Geology & Mineral Resources.

Abstracts from all prior symposiums are also available: https://geoinfo.nmt.edu/museum/nmms/abstracts

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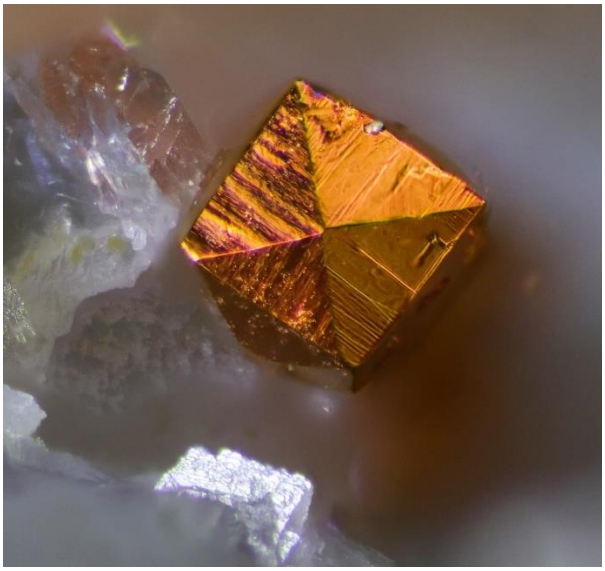
This year my rambling dissertation will be on the micro-crystallized minerals that occur in the Lake Superior Native Copper District. The two areas that will be discussed are the historic Michigan Copper District in the Keweenaw and new finds along the Knife River and Big Sucker Creek in St Louis County, Minnesota. Both Localities in Minnesota are just upstream from the mouth of the waterways, where they empty into Lake Superior.

New finds continue to be made in the Keweenaw of Michigan by collectors working the remaining mine dumps. Although collecting has been on the decline in recent years quality specimens can still be found. Some discussed will be sprays of micro copper crystals on prehnite from the Connecticut mine and beautiful manganite crystals from the Central mine with both localities in Keweenaw County.

Also discussed will be significant finds in the last few years. The most exciting finds have been made in Minnesota by Frank Karasti, who is a third-generation retired iron miner who lives in Gilbert, Minnesota. Frank has been concentrating on the boulder-strewn Knife River and Big Sucker Creek. Both localities have produced micro copper specimens that equal or surpass the material found in the Michigan Copper. Associated minerals include microspheres of malachite and beautiful small groups and crystallized incrustations of volborthite on prehnite.

Hope to see you in the Michigan Copper Country to enjoy a Cornish pasty and a whitefish dinner.



Copper (tetrahexahedral crystal) and prehnite, Big Sucker Creek, St. Louis County, Minnesota. FOV 0.8 mm. Frank Karasti specimen and photo.

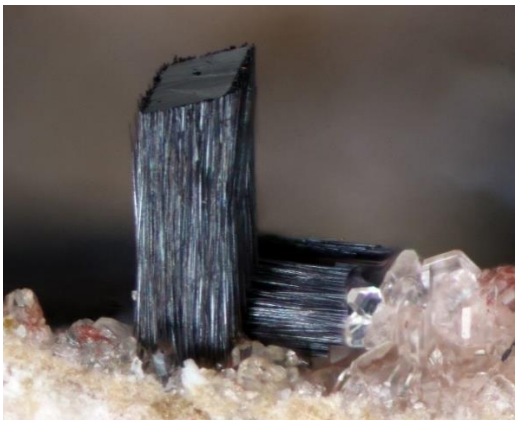
Volborthite, malachite, and prehnite, Knife River, St. Louis County, Minnesota. FOV 1 mm. Frank Karasti specimen and photo.

Cuprite, Calumet & Hecla mine, 1.3 mm crystal. John Jaszczak photo.

Silver, #5 shaft, Franklin mine, Hancock. 1.9 mm twin. John Jaszczak photo.

Datolite, Iroquois Mine, 0.83mm FOV. John Jaszczak photo.

Copper & prehnite, Avery shaft, Cliff mine. 2.4 mm vug. John Jaszczak photo.



Manganite, Tamarack Jr. No. 1 mine, 2.8-mm tall. John Jaszczak photo.

Silver epitaxic on Copper Caledonia mine. 1.44 mm FOV. John Jaszczak photo.