



Greenwood, Me.

MICROMOUNTERS OF NEW ENGLAND

OCTOBER 1984

NEWSLETTER #92

PRESIDENT

Patricia Barker
19 Stocker Avenue
E. Lynn, MA 01904

VICE-PRESIDENT

Palmer Sevens
94 Pearl Street
Woburn, MA 01801

SECRETARY

Ralph Carr, Jr.
25 Farnum Road
Warwick, RI 02888

TREASURER

Janet Cares
18 Singletary Lane
Sudbury, MA 01776

BULLETIN EDITOR

Shelley Nanes Monaghan
30 Eagle Avenue
Brockton, MA 02401

Dues are \$3.50 per year and are due on January 1st, payable to the Treasurer

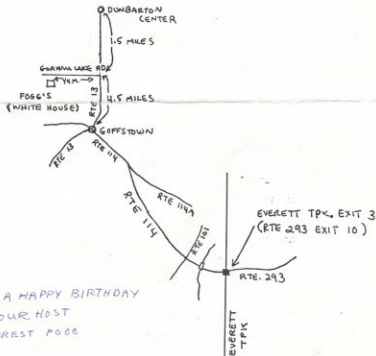
Contributions of news items for the Bulletin are welcome and should be sent to the Bulletin Editor.

This bulletin may be quoted if credit is given.

NEXT MONTH:

The next MNNE meeting is tentatively set for Saturday, Nov. 17th, at the home of Steve & Janet Cares, Sudbury, Mass.

The next regular meeting of the Micromounters of New England will be on Saturday, October 20th, at the home of Mr. and Mrs. Forrest Fogg, Gorham Lake Road in Goffstown, NH. Bring your lunch as well as your usual equipment, and don't forget that there will probably be some color still on the trees, so a camera might be desired as well. (The Foggas have a splendid panorama from their house.) This meeting will be even a little more special, as we will be celebrating the birthdays of members Bob Whitmore, Steve Cares, and Palmer Sevens' wife, Betty*, all celebrating and sharing October 20th as their special day. Should you have difficulty in reaching the meeting site, the Fogg's telephone number is (603) 774-6450.



HÖGBOMITE IN CANADA

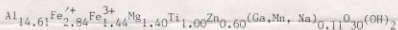
by Quintin Wight
Ottawa, Ontario

Seven miles southwest of the town of Perth, in Ontario, Canada, is a small clump of trees in the corner of a farmer's field. Hidden in the trees, protected by thickets of prickly bushes, are two shallow pits, and hidden in the pits are some very unusual crystals.

The pits are dug into a ledge of grey/pink-banded calcite which runs for over two miles across the fields. They may have been excavated as early as 1847, when the calcite was extracted for burning into lime, but were obviously not used for long, for they are hardly more than scrapes. In fact, the calcite is not well suited for burning, because it is speckled with black blebs of hornblende and spinel. The locality is remembered after more than one hundred years because many of the spinels have been partially or wholly altered to a pebble-surfaced, grey/green mineral---corundum. Although the corundum/spinel association is a common one in metamorphic rocks, this is the only locality, as far as we know, in which corundum is pseudomorphous after spinel. It is noted for that reason in Dana's System, 7th ed., Vol. 1, p. 525.

Until May, 1983, the pseudomorphs were the only reason for interest in the pits. That changed at the Spring meeting of the Canadian Micro Mineral Association at Brock University, St. Catharines, Ontario. I had been collecting at the locality a couple of years earlier and had found, perched on one of the spinels, what looked like a sharp, shiny, black biotite crystal. The speaker at the CMMA meeting was Dr. Richard Herd of the Canadian Geological Survey, a specialist in Mg/Al metamorphic relationships. When I showed him the "biotite" he said, "If that were a Swedish Specimen, I'd call that hōgbomite, but it's a Canadian one and hōgbomite has never been reported in Canada." At that point Dr. R.L.Gait of the Royal Ontario Museum searched out their material from the locality and checked. Dr. Herd was right; hōgbomite it was. No one had noticed it in 136 years.

Hōgbomite is listed in the 1983 Fleischer as $(\text{Mg}, \text{Fe}^{+2})_2(\text{Al}, \text{Ti})_{10}\text{O}_{30}$. The Encyclopedia (Roberts and Rapp) give $\text{Mg}(\text{Al}, \text{Fe}, \text{Ti})_4\text{O}_7$. A recent paper by two Australians, Gatehouse and Grey, gives



for azincian hōgbomite. In other words, hōgbomite is not a simple mineral. The material from this locality has not yet been examined in detail, but it soon will be under the close scrutiny of Drs. Gait and Herd, who are collaborating on a paper describing the occurrence.

In the meantime, those who have specimens of corundum after spinel from Bathurst Tp. Lanark Co., Ontario should search them for hōgbomite. The crystals are micro, black, lustrous, hexagonal, often with mirror-bright \bar{c} faces, and striated prisms. Free-standing crystals are rare, as most appear to be epitaxially oriented on, or in, the octahedral face of the spinel. Many are flat. When they are thick, or elongated, the prisms may bulge to a barrel shape. They are brittle, insoluble in HCl, have a conchoidal fracture, and are very weakly magnetic. Happy Hunting.

(Thanks to the April, 1984 issue of Mineral Mite.)

(Via the "MICRONews", Muriel
and Eric Wood, Editors)

Hōgbomite - Free Standing
and in Spinel

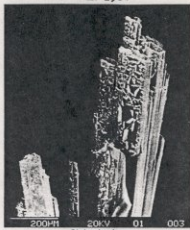


NEWS FROM SOUTH DAKOTA

Three New Minerals Discovered In South Dakota

Three new minerals have been discovered in the Black Hills of South Dakota, and the naming of one of them results in a total of three South Dakotans who have been recognized by the international mineralogical community for having minerals named for them. One of the new minerals was named in honor of Frank Tinsley, amateur mineralogist from Rapid City. Tinsley joins two other South Dakotans who have had minerals named for them. Robertsite was named in 1974 for Willard Roberts, Senior Curator of Mineralogy at South Dakota School of Mines and Technology's Museum of Geology. Olmsteadite was named for Milo Olmstead of Rapid City in 1977. Both Olmstead and Tinsley credit Roberts for spurring their interest in collecting minerals, a hobby they have pursued for 20 years.

Tinsley is a volunteer assistant in the mineralogy section of the Museum of Geology and has been a long-term contributor to the preservation of rare and unusual specimens from South Dakota. Tinsleyite is a magenta-colored mineral that was discovered in a mine near Custer while graduate student Thomas Campbell was working on his master's thesis in mineralogy. Roberts and Campbell were involved in the initial x-ray and chemical analyses and also determined the optical properties of the mineral, in cooperation with other analyses by Pete Dunn of the Smithsonian Institution; Dr. William B. Simmons of the University of New Orleans; and Dr. Donald Peacor and Roland Rouse of the University of Michigan. They found the mineral to be a potassium aluminum phosphate hydroxide hydrate.



Sinkankasite

A second new South Dakota mineral is named Sinkankasite, which was found in the Barker Pegmatite Mine near Keystone. The mine's owner, Mrs. Beatrice Barker, gave SDSM&T permission to investigate the mine where the colorless to white new phosphate mineral was discovered. It was named in honor of Dr. John Sinkankas, a retired U.S. Naval Captain from San Diego. He was recognized for his numerous contributions to mineralogy, including the writing of books about mineralogy and efforts on behalf of the education of amateur mineralogists.

Walentaite is a new calcium iron arsenate phosphate found by Roberts at a mine near Pringle. It is a bright yellow mineral which resembles clumps of dandelions when viewed through a microscope. It was named in honor of Dr. Kurt Walenta of the University of Stuttgart in Germany. Walenta has described many phosphates and arsenates, especially from the Black Forest.

Tinsleyite and sinkankasite were published in the March-April issue of the *American Mineralogist*. Walentaite was published in the recent issue of the national German mineralogical journal. New minerals and their names must be approved by the Commission on New Minerals and Mineral Names of the International Mineralogical Association.

According to Campbell, some of these unique phosphate microminerals found in the mines are usually formed by aqueous solutions that react with earlier formed minerals in the pegmatite, producing these secondary phosphates, many of which are

very beautiful. If the specimen looks unfamiliar, it is checked by x-ray analysis and compared to known mineral patterns. If the pattern is different, more chemical analyses are performed to determine if the mineral is new. About 20 minerals have been discovered in South Dakota in the past 15 years, with seven being found by Roberts and Campbell in the past two years. Type specimens of the three newly-named minerals are preserved in the collections at the SDSM&T Museum of Geology and at the Smithsonian Institution.

SDSM&T Museum Receives Micromount Donation

About 500 rare minerals have been given to the Museum of Geology collection at South Dakota School of Mines and Technology. They were donated by two amateur Black Hills collectors, Milo Olmstead and Frank Tinsley of Rapid City.

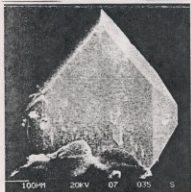
The specimens in the "micromount" collection are very small and can be best observed through a microscope. They come from throughout the world, and include diamond and gold crystals and native silver. The specimens were acquired through personal collecting and special purchases.

According to Willard Roberts, the museum's Senior Curator of Mineralogy, the donation is an "excellent asset" to the museum and is one of the better micromineral collections in the nation. Many of the specimens will be used for scientific research and reference purposes. Long-range plans are to have several displayed in the museum. They will be mounted on a "lazy-susan" type of instrument so the minute crystals can be rotated and observed under a microscope.

Roberts expects to receive more contributions to the micromount collection. Donations have already been received from Paul Seel of Pennsylvania and from the C.E. Withers collection in Denver.

"There is no way you can place a dollar amount on this collection," Roberts said. "Many are extremely beautiful and unusual, and some of the specimens are one of a kind. It's another addition that helps make the museum an excellent research tool for scientists, while providing a unique display for museum visitors."

Olmstead and Tinsley have been collecting minerals since they became interested in the hobby about 20 years ago through Roberts' encouragement. Each of the three men has had a mineral named in his honor. Robertsite was named in 1974, Olmsteadite was named in 1977, and Tinsleyite has just been released as a new mineral. All three minerals were discovered in Black Hills area mines, and are on deposit at the Museum of Geology. ■



Tinsleyite