MICROMOUNTERS OF NEW ENGLAND
NEWSLETTER

The MMNE was organized on November 8, 1966 for the purpose of promoting the study of minerals that require a microscope

No. 257 September, 2004

A MICROMOUNTER EXPLORES NEW HAMPSHIRE'S CONWAY GRANITE
Part 6

By Bob Janules
janules@worldnet.att.net

BALD MOUNTAIN

Years ago I was curious about a beryl crystal I saw in a display of New Hampshire minerals. It was well terminated, had a nice shape and was free from the cleavage cracks that develop in beryl as it is freed from its surrounding matrix due to sudden loss of pressure. Its location was listed as Ossipee and that had me puzzled. I was not aware of any beryl-bearing mines or pegmatites in Ossipee. From inquiry I learned that the crystal was from Bald Mt. and it was a pocket beryl, having grown free standing in a miarolitic cavity. I have heard of rare finds of pocket beryl in the Ossipee Mountains, but apparently Bald Mt. is New Hampshire's mini- Mt. Antero, where beryl is a common mineral in the pockets. Significant large cavities were found in the 1970's that produced a large quantity of fine beryls. My thought was not only with beryl; I was curious what other accessory minerals occurred there.

Float Boulder #1: Mike Graham and the late Joe Lastoka enjoyed bushwhacking and they accompanied me on my first foray up Bald Mt. We went up the south side and angled off somewhat to the east toward Mt. Whittier, not really knowing where to go. In a large boulder field Joe found a boulder with traces of amethyst quartz showing in a small cavity. The three of us attacked the boulder and soon each was into a small pocket. In my pocket there were what first appeared to be shards or needles. They were beryl crystals! I collected all of the cavity material on a newspaper set below the pocket. A few beryls were large enough for display in a thumbnail box, but most needed the help of a microscope. Beryl is not that commonly represented in micromount collections because it normally forms large crystals. Here were many truly fine examples of this mineral, most fully gemmy with a high luster. Almost all crystals showed some etching.

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Next Meeting

Map and directions are on the back page

For information regarding **MEETING CANCELLATION** due to inclement weather, contact President Jim Cahoon at (978) 897-8221 or cahooncj@aol.com

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The ***Newsletter*** is the official publication of the Micromounters of New England (MMNE). The last by-laws revision was April 19, 2003. The MMNE is a member of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) (<http://www.amfed.org/efmls>) and the American Federation of Mineralogical Societies (AFMS) (http://www.amfed.org). Material from the *Newsletter* may be copied in other rock and mineral publications if credit is given to the author and the *Newsletter* and permission has been obtained from the author. If there are questions regarding copying contact the editor. The club address is c/o the Secretary. Meetings are held monthly, September through May, except for December, and usually on an informal basis in July and August. Sites rotate and will be posted in the *Newsletter* as far in advance as possible. Visitors are welcome to attend all meetings. Bring a microscope and light source if you have one.

DUES are $10/year for a single person and $15/year for a family membership, levied on a calendar basis. The family membership includes two adults and all children under 18 living at the same address. One copy of the *Newsletter* will be sent on a family membership.

SHOWS

September

18 – Saco Valley Gem and Mineral Club Show

October

9-10 – 41st Annual Gem and Mineral Festival. Capital Mineral Club. Sat. 9-5. Sun. 10-4. Sunapee State Park, Rte 103, Newbury, NH. Adults - $3, Seniors - $2, 12 and under free with adult.

MICROMINERAL RELATED CONFERENCES AND SYMPOSIUMS

September

4 – Mont St.-Hilaire collecting trip, one day only

5 – Varennes collecting trip

18 – (Saturday) MMNE meeting, Chelmsford, MA library, 9am – 3pm

October

16 - MMNE meeting – At the home of Vera Fogg, Dunbarton, NH. Pot luck lunch.

1–10 - Baltimore Micromounters Symposium. Contact Cal Pierson for information. Phone (410) 472-9406 or e-mail cpierson@mhaonline.org.

16 – MMNE meeting aat the home of Vera Fogg, Dunbarton, NH. 9AM until ?. Pot luck lunch. Bring scopes, cords, swap and brag, etc.

22-24 – Mont St.-Hilaire collecting trip(Saturday and Symposium) and Symposium

November

5-7 – Micromineral Society of the Cleveland Museum of Natural History, I Wade Oval, Cleveland, Ohio. Contact: George Simmons at SIMMONSGandb@cs.com.

20 – (Saturday) MMNE meeting, Chelmsford, MA library, 9am – 3pm

MEMBERSHIP NEWS

Please welcome new members:

Gordon Graham, 46 Pine Ridge Road, Sunapee, NH 03782. ghgraham@srnet.com

Vince Valade, 35 Plimpton Road, Goffstown, NH 03045-2919. (603) 497-3935. leadrock@msn.com

Please welcome returning members:

Priscilla T. Lockwood, PO Box 87, Sherborn, MA 01770-0087. (508) 647-0310

Phillip Partington, (June thru September) 2667 North Road, Maidstone, VT 05905.
(October thru May) 5055 S. San Paolo Avenue, Sierra Vista, AZ 85650
(year round) rockhoundaz@wmconnect.com

("Conway Granite" continued from page 1)

Bertrandite was common usually as tabular crystals often growing on the beryl. It was odd to see bertrandite on gemmy beryl as it commonly forms when beryl is severely corroded. Other minerals from the pocket included etched fluorite, zircon, a mica species and siderite. Beryl and bertrandite specimens with siderite were most attractive.

Peter Samuelson's sandy beryl pocket: On our next ascent of Bald Mountain we angled slightly to the west and reached semi-open ledge that contained some good sized previously worked pockets. We stumbled onto a pocked that Peter Samuelson had recently re-worked. The major find in that pocket for Peter was a large number of beryls that had been partially replaced by albite, giving them a sandy appearance. In the tailings of that major pocket (guessing 3.5ft wide x 10ft deep) were fine clusters of siderite. Siderites here were fresh with little alteration to goethite. Associated with the siderite were many micro-crystals of monazite- (Ce). These were sharp but most had numerous internal cracks and defects. One specimen was found of red monazite crystals oriented in parallel upon a glassy black metamict mineral. SEM EDS analysis of this mineral shows a chemical composition that suggests niobo-aeschynite-(Ce) as a tentative identification. Jet black bi-pyramidal anatase crystals were found on pocket minerals as well. The entire bottom of the pocket consisted of granular albite crystals loosely cemented together to form a massive material. Embedded in this matrix and in small cavities could be found fragments of beryl, monazite, xenotime, anatase and golden needles of rutile growing on the surface of the anatase. Curiously, there was no evidence of any secondary beryllium mineralization.

Float boulder #2: One day Joe showed me a cluster of smoky quartz crystals that he had recently collected on Bald Mt. I wasn't impressed with the quartz but was intrigued with a red speck with the quartz. Under the loupe was a sharp gemmy monazite crystal. Soon Joe and Mike took me to the cavity that produced this piece. Bald Mt. is horseshoe shaped. At the bend is a headwall and the start of a brook. Just below that are boulders, some with cavities. From the pocket wall of this grapefruit sized cavity I chiseled out more than a dozen specimens that featured extremely fine monazites on albite. They were red, orange or yellow, mostly tabular with sharp faces and often gemmy. Associated was bertrandite with "Roman sword" terminations.

Float boulder #3: October is a good time for collecting. On Bald Mt. however when the leaves fall from the beech trees and are fresh on the ground traction is difficult going uphill. The sole result of a laborious hike up Bald Mt. under those conditions was a specimen from a boulder near the one that had the monazites. It featured brookite and anatase growing together on a vertical plane, likely replacing a previous tabular mineral (ilmenite?). The brookite is golden brown and while not spectacular, it is the only brookite I have found in Conway granite.

The shallow bertrandite pocket: Many pockets on Bald Mt. do not contain beryl but show evidence that beryl had once been there and had dissolved. The clue is hexagonal casts in quartz or feldspar with the secondary beryllium mineral bertrandite present. A wide but shallow previously worked pocket located close to Peter's big pocket is a case in point. The tailings from the pocket produced an abundance of bertrandite on albite and quartz specimens with not a trace of beryl. The bertrandites, with a habit featuring an elongated b-axis, were profuse on pocket wall material under a brick-red clay that had to be ultrasonically removed. Also present were chocolate-brown zircons, siderite, yellow monazite (crudely formed) and a number of fine xenotime crystals. The xenotimes are yellow brown in color, show good development of the prism, and are terminated by the pinacoid with minor modification by pyramidal faces.

One could clearly see the bottom of the pocket. It appeared to have been fully worked out. I removed the bottom plate of the pocket with a crow bar to get more bertrandites. Under the plate was a pool of water. When I put my hand in it I pulled out the best smoky quartz crystal I ever found on that mountain. It was a jet black point with a fine luster maybe three inches across. I often find micro material when going for cabinet pieces, the reverse rarely happens.

The winter dreaming pocket: One day late in the collecting season Joe and I were walking some open ledges on Bald Mt., and we spotted a lens of bull white quartz in the ledge. Pockets on this mountain are located under a cap of quartz. There was a tuft of grass growing from the center of the quartz. I probed this spot with a screwdriver and was able to push it in all the way to the handle. This had to be a vent from a pocket situated below. It was too late in the day to do anything with it, but we planned to return next week.

(continued on the next page)

("Conway Granite" concluded from page 3)

As our luck would have it, it snowed that week and the winter weather persisted until spring. When Joe and I met that winter we often talked about the pocket up there, and privately fantasized about the potential treasures that it may contain. One day in early April we allowed eagerness to overtake good judgment and planned our trip on Bald Mt. The forecast called for the probability of rain, but we hoped we could get some collecting in before it started. As our luck would have it, it started to rain as we started to hike. It didn't rain hard, but it was steady and penetrating. With the air temperature at about 40 degrees, we were a sorry pair when we got to our spot on the ledges. After a few minutes of work it was determined that the "vent" was actually an old drill hole. Someone had apparently drilled into the quartz, determined it didn't open up, and abandoned it. We returned to our truck shivering all the way. It was only after the heater was on for a good while and the borderline hypothermia had dissipated that we were able to laugh at our folly.

(To be continued in a future issue of the Newsletter)

ERRATA regarding the photographs in the May issue of the Newsletter:

Regarding the two Scott Whittemore photos; the left-hand one is tourmaline var. elbaite, not beryl, and it is from the Dunton mine, Newry, ME. The prehnite is from the Route 101/101A road cut in Amherst, NH.

The amethyst and the monazite photos were taken by Scott, not by Bob Janules.

MICROMOUNTERS OF NEW ENGLAND MEETING JULY 17, 2004

Twenty members of the MMNE and a guest gathered at the lovely country home of Pam and Gordon Jackson to enjoy quantities of micro minerals, lots of good food, many collecting friends and so much to tell each other about spring and summer collecting.

It was good to welcome back Priscilla Lockwood and Phil Partington after a hiatus of several years. Thanks Phil for all the give-aways. Hearty welcome to new member Vince Velarde.

Lunch with all that marvelous pot luck food was enlivened by Gene, Scott, and Priscilla telling hilarious stories of speeding tickets they received, or almost received, on the way to mineral events. Another highlight of the Canterbury visit was viewing Pam's showcase gardens; she certainly has a green thumb.

Now we are looking forward to visiting Vera Fogg's home on October 16th, setting up the Saco Valley Show September 18th, and the Sunapee Show October 9th.

Reported by Pat Barker, Secretary

Photo Credits

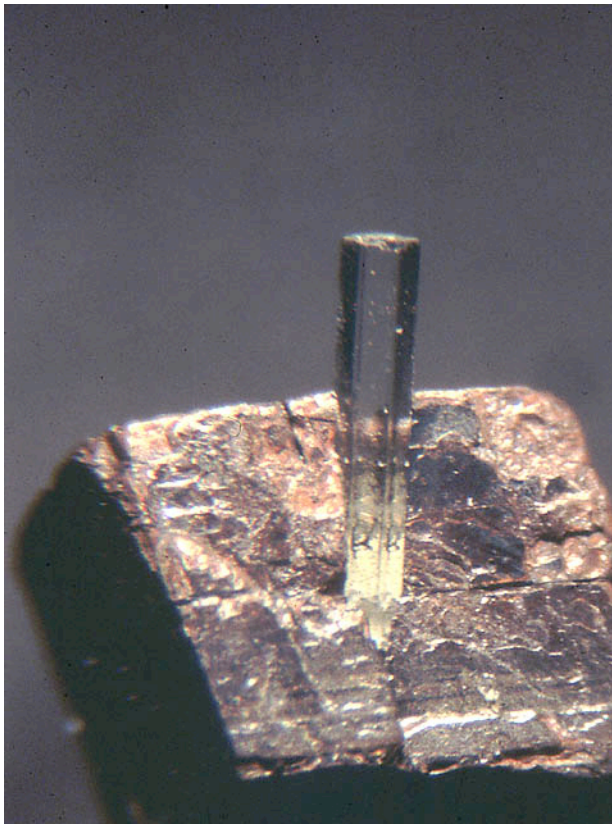
Conway Granite Specimens

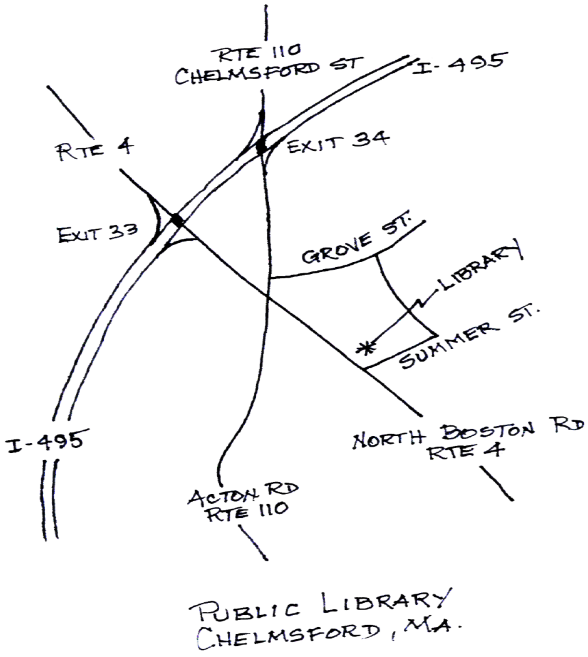
Left: Rutile,
Photo: Scott Whittemore

Right: Monazite-(Ce)
Photo: Bob Janules

Photo Credits

Top left – Bertrandite, Scott Whittemore
Top Right – Xenotime, Scott Whittemore
Bottom left – Monazite-(Ce), Bob Janules
Bottom right – Beryl on siderite, Bob Janules





CHELMSFORD, MASS LIBRARY

Note: This map is confusing. As you head south on Rte 4, Rte 27 will bear off to the right as a one-way street after you pass through the center of town. Start onto 27 but keep turning left onto Bartlett St. and then Adams Avenue. This will take you around behind the library and then lead into Rte 4 heading north. Turn left onto Rte 4, and then turn left again into the library parking lot

Michael Swanson
Editor, MMNE *Newsletter*
646 Greenfield Road
Leyden, MA 01301-9400