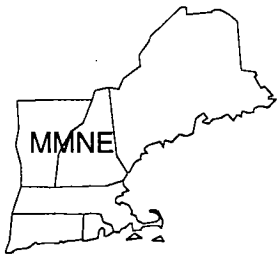

MICROMOUNTERS OF NEW ENGLAND

The MMNE was organized on November 5, 1966, for the purpose of promoting the study of minerals that require a microscope

September 1994 Newsletter #179

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Dues are $6.00 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 Editor

NEXT MONTH:

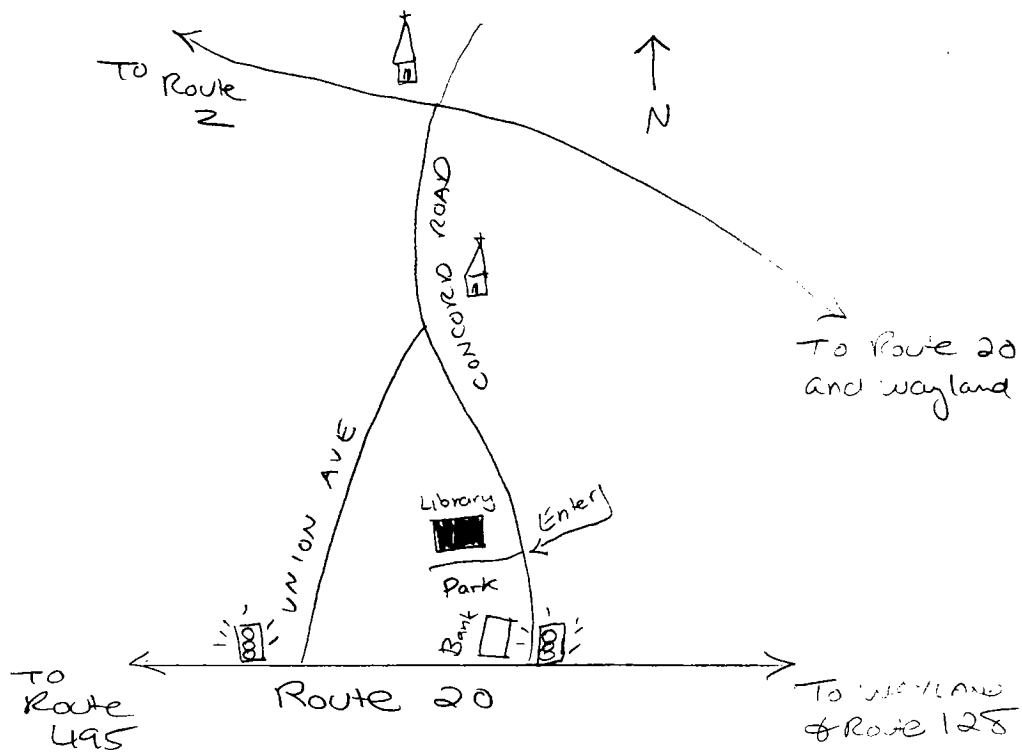
Our October meeting will be **Saturday, October 19, 1994,** at the Auburn Public Library

The next meeting of the MMNE will be **Saturday, September 17, 1994,** at the **Sudbury Public Library**. Our program speaker will be Gene Bearss, who will present a slide program concerning the minerals of Franklin and Sterling Hill, focusing especially on the minerals of the Buckland Dolomite Mine.

Hint of the Month - Black Box Liners

The affluent no doubt go to the source and buy a 1000 plastic boxes complete with black liners, but those of us who eat off a tin plate pick up boxes where and when we can. This can result in problems such as boxes not all of the same size, and sometimes without black liners. I learned from Dick Sims years ago to make liners out of old photo album pages. These old albums often turn up at garage sales for 10 cents or so.

When making the liners do so as accurately as possible. If made even the slightest bit too small there will be a gap in the corners. If you make them too tight, you will have trouble trying to slip an identification label between the liner and the box. When marking the black photo album paper, use a lead (graphite) pencil. Although these pencils are blacker than most ball-point pens, the graphite shines on the black paper making it easier to be precise..... by Frank Holley, CMMA MICRONEWS, June 1994.



IN MEMORIAM - A MICROMOUNTERS OF NEW ENGLAND MEMBER
A moment of thoughtful silence for a knowledgeable member
Holmes Wilson
who passed away on June 12, 1994

Memorial to Holmes Wilson by Angie Teixeira

When a member of a family passes on, the grief and sorrow is deeply felt by the family members, and this is reasonable to expect. Thus it is with those of us, as members of the Micromounters of New England, as part of a family of geological and mineralogical association, we too experience sorrow when one of our members leaves this life and is no more with us.

In 1988, Holmes had his heart operation and later suffered a stroke, sending him to reside in a nursing home until his death. For those of us who knew Holmes, we will always remember him for his witty charm and most gracious manner. He was kind and thoughtful and was always ready to share his knowledge with everyone.

While most of us knew very little of his private family life, we did learn how he began his career and the love for minerals. Holmes wrote an informative article about himself in the October 1984 issue of "Bowen-Lite." It was not until his freshman year that he decided to major in geology at Brown University. At the time it wasn't fully clear to him, other than he liked people, and he was told that many of its (geology) phases held good potential as a vocation.

By the end of the next year, he was "hip deep" in the subject academically, and very active in the lab, particularly in mineralogy. It was his close association with Dr. Alonzo Quinn, head of the department at Brown, that started him out on many departmental collecting trips to the New England sites. His favorite was the Strickland Quarry in Portland, Connecticut. The summer before his senior year, he was able to get a job at a gold mine in the Sawtooth Mountains of Idaho. this was a great mining experience. After graduation, Holmes enrolled at the Colorado School of Mines at Boulder; however, World War II came, and Holmes was off to the jungles of Burma.

After the war he drifted into radio broadcasting and never did go back to geology until 1974. He joined the Micromounters in 1979. In May 1982, he designed the cover and logo for our Northeast meeting and continued to publish the program until his illness.

To his wife, Andree and his family, we give our comforting words.

Report on Mont Saint-Hilaire

The following information on recent finds at Mont Saint-Hilaire comes to us from a reliable source.

In cracks in coarse microcline - green aegirine, yellow zircon, and a white mud-like mineral identified as dawsonite, were found in May. Silky white balls in this association are franconite, and colorless, tabular crystals with a rhombic outline, which occur as hemispherical aggregates and druses, are sabinaite.

On the August trip, nice carltonites were found in marble. Look in this material for silky, peach-pink aggregates of the rare raite. One rock when split open revealed very nice tabular apophyllite - not a rare mineral elsewhere, but infrequent at Mont Saint-Hilaire.

Also in August, Gilles Haineault displayed a large lavender-pink crystal of sugilite, which at first glance could be mistaken for amethyst. It had been found as poorly developed pink crystals up to several centimeters in size in the marble. It is said to resemble stillwellite or hackmanite, but it shows no fluorescence.

In May 1990, Dennis Coskren's article, "Sulfate Minerals in New England," was published in the Micromounters of New England annual booklet. In it he described various sulfates and mentioned a few others including gypsum and diadochite. In October 1990 (MMNE bulletin #144), I reported on gypsum crystals from a roadcut in West Forks, Maine, and now I have more occurrences to report.

While on a group trip last October, we found gypsum crusts of microcrystals in a roadcut on Route 89, ¼ mile south of exit 15, in West Enfield, New Hampshire. This April I found gypsum crystals in a roadcut on Route 104, 1.8 miles west of Bristol, but actually ¾ of a mile into Alexandria, New Hampshire. This early August I found more gypsum crystals in a roadcut 2.3 miles further west on the same Route 104. These sure are pretty under the scope, and some are even twinned. The last two roadcuts were a rusty metamorphic rotten "quartzite" with abundant graphite flecks, and the rock smelled of sulfur. In all cases the crusts of gypsum were found under overhangs and probably resulted from the reaction of calcium with sulfuric acid from decomposed pyrites. It therefore seems productive to check rusty metamorphic roadcuts with overhangs, provided that there is ample space to safely park well off the traveled way.

Dennis Coskren's article also mentioned diadochite. I am unfamiliar with this mineral, but have noticed a very microscopic material upon certain species at the Parker Mountain (Buzzo) mica mine in Strafford, New Hampshire. It is amber orange to red to brown, in waxy crusts or tiny botryoids, sometimes found upon loellingite, cyrtolite, or upon goethite pseudomorphs after pyrite. Philip C. Foster, in his article on the site, mentioned diadochite, but I do not know the extent of his diagnosis of the mineral. I wonder if this material could be a member of the diadochite/sarmientite series. Has anyone else noticed this material?

Back to roadcuts, I had often driven by the Route 4 & 155 roadcut in Lee, New Hampshire, although it had, in the past, yielded pyrite, quartz crystals, calcite and altered siderite. During a geology field trip, I sat be a quartz vein and picked at it, noticing tiny things, which I later identified, with aid of chemical tests, as rutile with calcite in the quartz - the first report of rutile in this county. Later while on a mineralogy/petrology field trip, we identified this micaceous "phyllite' as low-grade metamorphism, and we drove west into higher metamorphic rocks culminating in the Massabesic formation in Candia, New Hampshire. there is a roadcut on Route 107 just north of Route 27, in a granite/gneiss. I found titanite, identified by color and crystal habit. Our instructor agreed that titanite has been found there, and later, he showed a phase diagram in which rutile + calcite + quartz, under conditions of higher temperature and water content, formed titanite and carbon dioxide: $TiO_2 + CaCO_3 + SiO_2 = CaTiSiO_5 + CO_2$.

It is gratifying to learn the reasons why certain species occur in certain environments, and that noticing micro crystals, even in old roadcuts, helps make mineralogy more interesting. Or is it that mineralogy makes micromounting more interesting?

Dana M. Morong, 1994

LOCALITY NEWS

For anyone possessing a sense of adventure, and protection from falling projectiles, good micro minerals can still be collected at the former Mystic River Quarry. In the fall of 1992, this site yielded allbite, pyrite, quartz, titanite, rutile, brookite, and multi-colored anatase to Jim Warner and myself.

Good micro specimens were collected from alpine type veins that occur in the Cambridge argillite, but so far, only from those located in close proximity to a diabase dike that remains exposed in the old quarry wall. None were found in the dike itself, but Dana - 7th edition, reports that anatase is associated with brookite and titanite, and could be found in both rock types in the vicinity of the dikes. Veins of quartz and calcite also occur at a distance from the dike, but so far, we have not demonstrated that the desired minerals come from them.

It was impossible to identify the veins that contained good micro material in the field. As a result, we found ourselves taking random samples. The calcite then had to be etched from the specimens before they could be inspected. The largest crystals required a 20 to 25x magnification, but others would often be small enough to require 56x, and could easily be overlooked. The yield of keepers turned out to be about 5 to 10 %, which did not seem to improve even in the most promising looking material.

Most of our anatase came associated with a druse of albite in some of the most minute veinlets, and much of the brookite was found with a micro quartz, or quartz and albite druse in small veins, separate from those that contained anatase, but some of the larger veins yielded an occasional anatase or brookite crystal perched on quartz. One of the more interesting specimens of brookite crystals exhibited a few rutile growths on them.

Interesting not only because of its apparent uniqueness, but because Dana - 7th edition remarks that rutile is typically the higher temperature polymorph. In this case, rutile apparently formed later than brookite.

We collected some minute crude pink rhombic shaped crystals, that we believed at the time had been etched by our acid treatments. As a result, dolomite was suspected, but it is probable instead that they are titanite, or maybe adularia crystals that had been attacked prior to the entry of calcite. No real effort has been made to identify the material, but since titanite is reported by Dana, and is more compatible with alpine environments, it appears we have titanite. We also collected some pyrite crystals from many of the veins that had little else of interest.

This locality is easily accessible by automobile, and no permission seems to be necessary to collect the site given that it is now occupied by a public housing project. But if you feel the need to cover all bases, I believe the Somerville Housing Authority has jurisdiction.

I have found the young residents to be friendly and genuinely interested in our activities. I do not believe the neighborhood is particularly risky to walk in, but you should collect the site prepared to defend yourself. Jim did report an attempted egging on one of his visits.

Happy hunting,
Chris Coolen
Revised from the Locality News, BMC Bulletin, June 1993