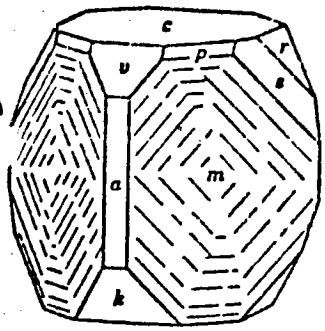

CRYOLITE

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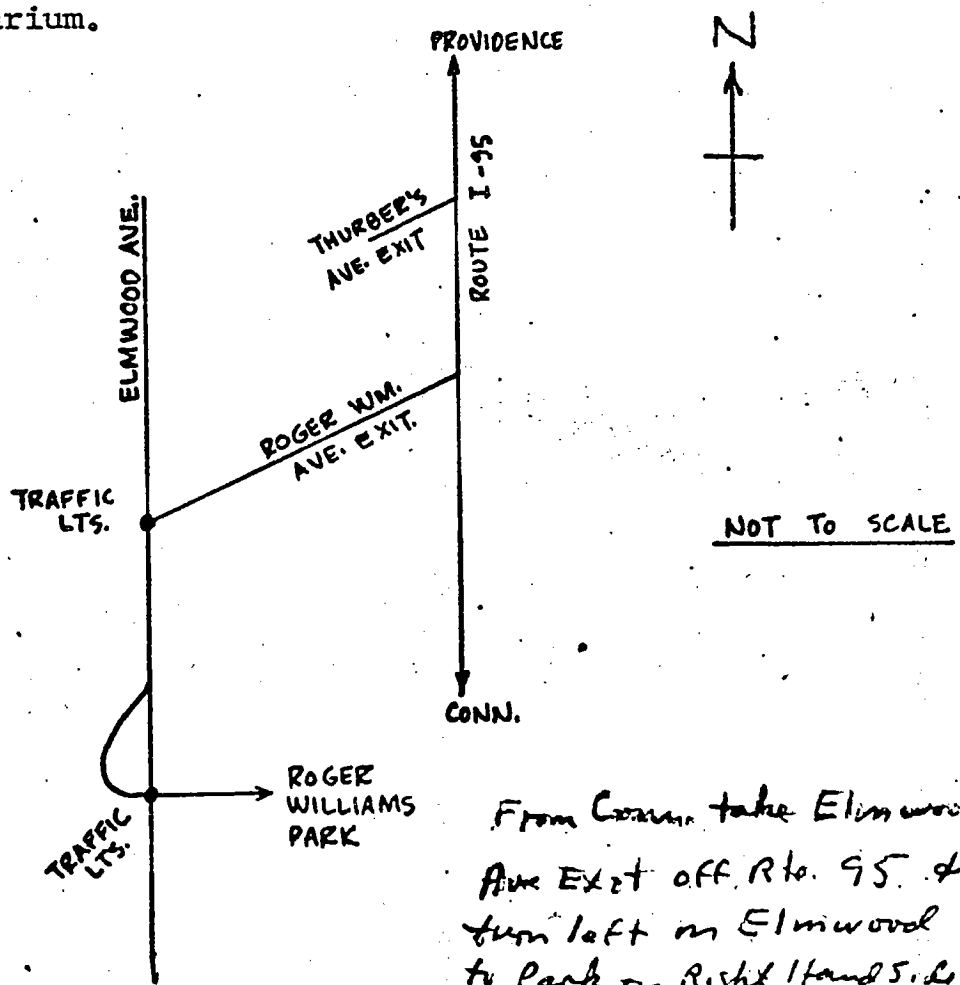
NEWSLETTER #45 October 19, 1978

The next regular meeting of the Micromounters of New England will be held on Saturday, November 4, 1978 in the Museum/Planetarium Building, on the grounds of Roger Williams Park, in Cranston, RI. There is a small mineral collection in the museum, which will be open. Once you enter the Park off Elmwood Avenue, follow the small signs to the Museum/Planetarium.



Minutes of September Meeting

Micromounters of New England, September 23, 1978 meeting at the home of Cleve & Janet Cares in Sudbury, Mass. Ten members were present for a brief business meeting. The tresurer's report was read and accepted. Several ideas were discussed ranging from more swapping with other clubs or individuals; brief talks by members at our meetings; other potential meeting locations; specific location minerals to be worked on at specified meetings; ways of recruiting new members and publicity ideas for our group.

Dues were accepted by our treasurer who noted that some members had not yet paid their dues.

Our next meeting is still scheduled for November 4, 1978 at Roger Williams State Park in Rhode Island in the Mineral Museum on Saturday.

Ray & Marion Scholfield of Montville, Connecticut were present and became new members. Ray is retired, a mineral collector and now entering this new phase of the hobby.

Janet Cares then descibed to us her methods, equipment and techniques for preparing, mounting, labelling and indexing her specimens. She followed this up with a few slides of both hand held photographs and photomicrographs that she has taken. The members were interested in her technique and perhaps we may see more of this in the future.

For those who have not attended recent meetings, take note that Cleves Dodge, our Vice President has moved to Manchester, N.H. as noted on the Masthead.

Submitted by Norman Biggart, President

A majority of the minerals of Francon are white and often so small that it is difficult to determine the crystal shapes. A useful test is that of effervescence in dilute hydrochloric (muriatic) acid. One part of acid as purchased is diluted with two parts of water. A drop is added to a separated crystal (or powder scraped from a ~~crystal~~ specimen) and the reaction noted. It may be necessary to observe the reaction under the microscope, but be sure not to leave it too long under the scope, as acid fumes could be corrosive. Calcite, dawsonite, dresserite, hydrodresserite, strontianite, strontiodresserite, and weloganite will effervesce with acid, but barite, celestine, cryolite, harmotome, and plagioclase will not. (harmotome may dissolve, but will not bubble). A cryolite fragment if placed in water will seem to disappear, since the refraction of cryolite and water are nearly identical.

Submitted by Janet Cares

COPPER IN NEW ENGLAND IN 1911

CONNECTICUT. The first copper mine in the United States was opened at Granby, Hartford county, Connecticut, in 1705, this being the Newgate mine. The Bristol mine in the same county also was a producer. The Bristol yielded mainly chalcocite, boruite and chalcopyrite, with a little malachite from the upper portions and was opened in a fault zone between gray gneiss, hornblende schist and Triassic sandstone. Native copper is noted at Farmington, in the same county, and there are occurrences of copper ore at New Britain and Simsbury, the latter being cupriferous pyrites, which also occur in Hartford county. Native copper occurs at Farmington, in red sandstone. A 200-pound mass of native copper has been found in alluvium, near New Haven, and there are sulphide copper ores at Carmel Centre and Cheshire, in New Haven county. Copper ores are noted also at Brookfield in Fairfield county, Roxbury in Litchfield county, Middletown in Middlesex county, Bolton in Tolland county, and Montville in New London county.

MAINE. There are occurrences of copper ore in the counties of Hancock, Penobscot, Sagadhoc and Washington, there being old copper mines near Calais, Washington county, on the New Brunswick border.

Occurrences of copper are noted in Brookville, Sullivan, Blue Hill and Franklin, in Hancock county, the more important being in the vicinity of Blue Hill, where there have been about a dozen attempts at actual mining, mostly unimportant, though several small mines were opened. This county had a copper mining boom, circa 1877, at both Blue Hill and Sullivan, mining being suspended about 1884, on account of the low price of the metal. The copper slump of 1907 came just in time to nip in the bud an attempt at reopening some of these old mines. At one time there were two mining exchanges in Bangor, but at last accounts these buildings were occupied as a saloon and barber shop, respectively. The Blue Hill ores were claimed to run 5 to 30 per cent copper, with an average of 10 to 12 per cent, which obviously is a great exaggeration, and the ores were claimed to average $12 to $15 gold per ton, also an obvious exaggeration. The old waste-dumps are said to average 3 to 4 per cent. copper.

MASSACHUSETTS. In this state copper ore is noted in the counties of Berkshire, Essex, Franklin, Hampden, Hampshire, Norfolk and Worcester. A little native copper is found in some of the Triassic sandstone strata, and a little chalcopyrite is found in the lead mines of Southampton, in Hampshire county. In Franklin county, the Davis pyrite mine has been worked for sulphur values since circa 1880. Two miles west of the Davis mine is a Savoy schist, carrying a fahlband of 15 to 20 feet width and 750 feet apparent length, with a paystreak on the north wall carrying chalcopyrite. Chalcopyrite also is noted about 10 miles west of the Davis mine, in Hampshire county. At Sheldonville, Norfolk county, a 94-foot shaft was sunk, circa 1901, on a quartz vein in granite, carrying values in gold, silver and copper.

NEW HAMPSHIRE. Copper ores are found at a number of points in this state, especially in Grafton county, where more or less mining has been attempted. Occurrences of copper are noted at Bath, Franconia, Haverhill, Littleton, Lyme, Oxford, Warren and Woodsville in Grafton county, near Jackson and Madison in Carroll county, at Westmoreland, Cheshire county and at Croydon and Unity in Sullivan county.

RHODE ISLAND. There are no mines of copper in this state, but chalcopyrite occurs near Portsmouth, Newport county, and occurrences of azurite, malachite, bornite and chalcopyrite are reported from other points, though apparently found nowhere in commercial quantities.

VERMONT. In this state there are copper mines in the counties of Lamoille and Orange, the latter being the more important, and copper ores are noted also in the counties of Franklin, Madison and Rutland. Copper mining was an industry of some importance in Vermont previous to the opening of the Lake Superior district, and the largest mine of the state was a famous producer for many years. The Vermont ore is chiefly chalcopyrite, and is noted at Brandon and Cuttingville in Rutland county, at Bridgewater in Madison county, at various points in Franklin and Lamoille counties, and at South Strafford, Copperfield, Vershire, Corinth and elsewhere in Orange county.

There are three principal copper districts in Orange county, the northern being at Corinth, where the Union mine is the most important property. The middle district is at Copperfield, where the Ely mines, opened in 1821, were the largest in the state, and the southern district is at South Strafford, where the Elizabeth mine has been a considerable producer. The ore is mainly chalcopyrite disseminated in pyrite and pyrrhotite, with a small amount of other gangue. The Elizabeth mine is the oldest in the state, having been opened in 1793 and long worked for cupriferous pyrrhotite. The Orange county deposits considerably resemble those of the Capelton district in Quebec, to the north, and are somewhat similar to those of the Ducktown district of Tennessee. The country rock is mainly contorted metamorphic sericite schist, surrounded by sedimentary beds of Paleozoic age, with pegmatite dykes. The Ely ore body is 20 to 30 feet in thickness, up to 150 feet in width, and has been mined to a depth of 3,600 feet. According to Weed the mineralization was pneumatolytic, due to emanations from granitic magma.

The above information was taken from "The Copper Handbook", Volume X, by Horace J. Stevens, copyright 1911.

#45

3rd ANNUAL SWAP

MICRO 78

SUNDAY
Oct. 29, '78

at the

NEW JERSEY EARTH SCIENCE ASSN.

WORKSHOP DAY

ROUND BUILDING ---- FAIRLEIGH DICKINSON UNIVERSITY
RUTHERFORD, N.J.

9 AM - 3 PM

Bring your best swapping material - - - Micros only
Help the GIVE-AWAY TABLE with some of your own material

- 2'8" Table Space for Microscope
- Free Parking
- Elec. Outlet at Each Table
- Beverages - - Hot or Cold

WORKSHOP DAY REGISTRATION FEE OF $2.00 COVERS ALL ACTIVITIES