Newsletter No. 17

MICROMOUNTERS OF NEW ENGLAND

February 25, 1972

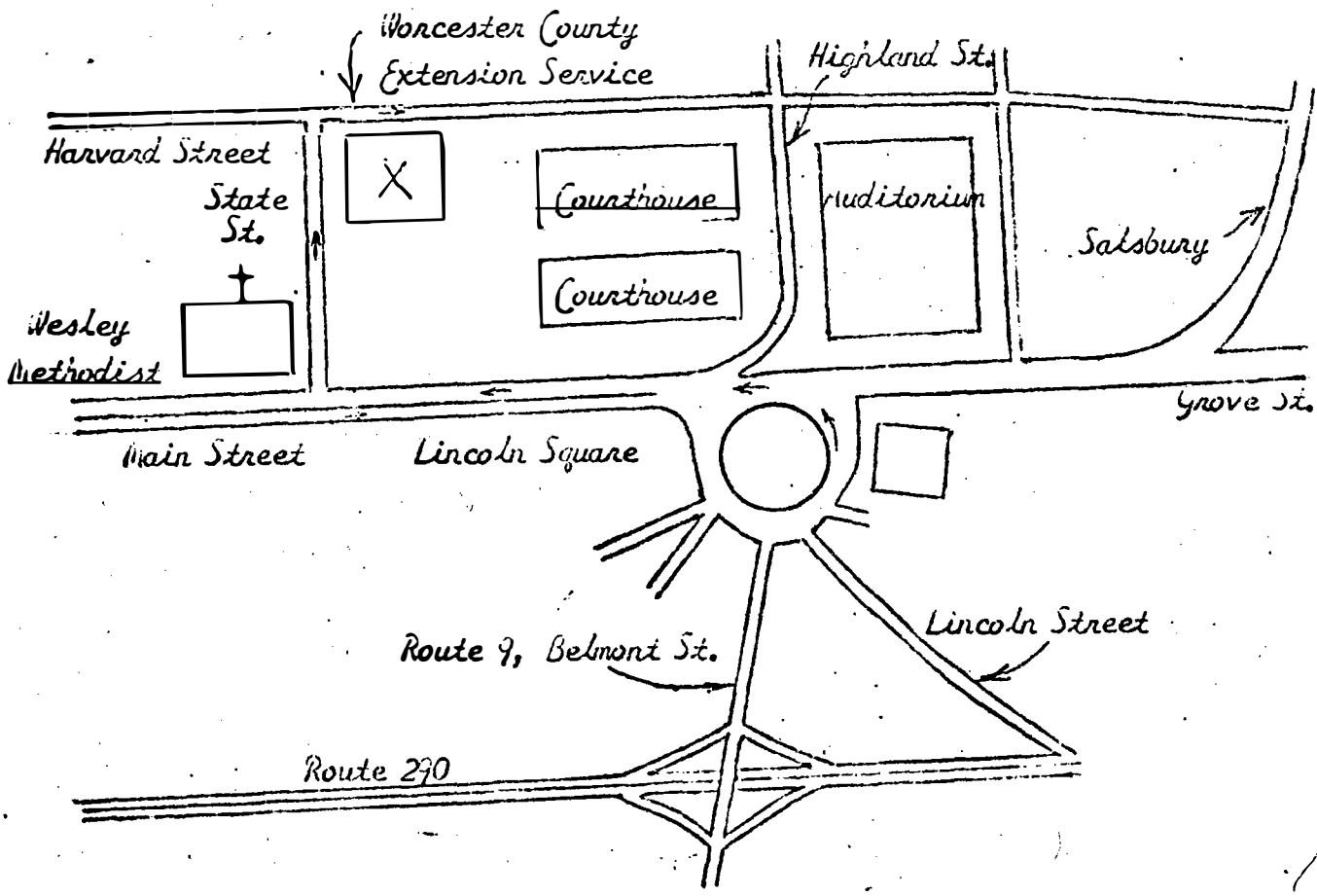
The next meeting of the Micromounters of New England will be held on Saturday February 25 at the Worcester, Mass. Below is a map of the immediate vicinity. The place that the meeting will be held is at the Worcester County Extension Service, which is at the corner of State and Harvard Streets in Worcester. From 12:00 M to 5:00 P.M.

To get there from route 290, take the Lincoln Street exit or you can take the route 9 exit west (Belmont Street) to Lincoln Square, go three quarters of the way around and straight ahead on Main Street; at this point it is divided. Then take the right turn at State Street, to Harvard Street, turn right on Harvard Street and park in the parking lot at the Worcester Extension Service building.

Hope to see you there if the weather holds out. I will have many extras of the fluorite from the route 195 road cut in Johnston, Rhode Island. I do not know why the coldest and most miserable time of the year is always the time when one should be out collecting, but I have done my best collecting then.

I will show some of the best finds at the meeting, both in specimens as well as in color slides. Ted Agos will show you some of the newest minerals from his favorite location, St. Hilaire, Quebec. Bring some of your extras as there is sure to be someone with extras from some of his collecting.

Gil George



Latest Finds at Rhode Island Road Cuts

Recent blasting at the new state route 195 road cut at it's junction with interstate route 295 in Johnston, Rhode Island has unearthed many veins containing fluorite crystals. These crystals occur in many forms, colors, twins as well as color zoning. The size of the average crystal is microscopic, with some larger ones. The largest one was a two inch cubic crystal that had been attached to matrix and was found loose in a decayed vein.

The most common form found was the cube. The next was the cube modified by the octahedron, then the octahedron modified by the cube- some with equal development. The next most common form was the octahedron modified by both the cube and dodecahedron. Many of the last type were further modified by the trapezohedron at both tips of the octahedron only.

Twinning was shown by small cubes on some tips of the octahedron only. Some cubes twinned with the (001) or "c" axis of the octahedron. Some octahedral crystal were completely covered with small cubes, all reflecting light simultaneously. Undoubtly many of the cubic crystals had been built up this way from octahedrons.

Most of the crystals show some kind of color zoning. The most common was color zoning parallel to the sides of cubes and octahedrons. Many of the cubic crystals showed cubic color zoning, where a light or colorless cubic crystal formed over a smaller and darker one. Some of these had formed with the "c" axis parallel, but rotated ninety degrees so that the new sides bisected the corners of the original crystals.

A rarer form of zonal coloration was where a colorless or light crystal had it's bounding octahedral faces colored dark purple. Another one was colorless octahedrons modified by the cube, with the cubic faces colored dark purple. Some of these had been covered by colorless fluorite in the same form, resulting in spots of in the interiors of these crystals.

The most interesting one was one specimen found that had two cubes with bluish purple splotches in it's interior. These had no definite crystal relation and looked like smoke rings.

The color of most of the fluorite was a dark purple. Other colors were light purple, green, colorless, pink and rarely blue. The last two colors were only found in massive veins and not in crystals. At one vein, the fluorite crystals and vein filling were almost completely replaced by massive small grained fluorite, some assuming botryoidal forms and balls. These forms also had color zoning. Some of the replaced crystals had retained crystal and cleavage forms.

Inclusions were found in some of the fluorite crystals were they had formed around some nucleous. Many of the crystals showed some sign of having been echted. Many of the veins had been completely altered and all the fluorite, siderite, pyrite, pyrrhotite and vein filling had been altered eroded and the only mineral remaining was quartz crystals covered with a film of goethite and pyrolusite.

The vein filling seems to have been originally massive chlorite in small microscopic crystals, but most seem to have been altered to a hydrous mica or clay like mineral. Some veins do have muscovite mica associated with fluorite. The two most common minerals in all vein was quartz and fluorite. The next common was siderite (massive and in grains), chlorite feldspar and magnetite (in micro crystals). The siderite was also occasionly in ball forms as sphaerosiderite. Other minerals found were pyrite(in cubes and octahedrons), galena (in cubes, dodecahedrons and rarely in branching cubic growths), pyrrhotite (massive and sometimes in micro crystals - some twinned in crosses on an unknown fiberous mineral), chalcopyrite (massive), hematite(alteration of the magnetite), ilmenite (in plates and altered to leucoxene), molybdenite (some altered to powellite?), calcite (massive), actinolite (crystals), epidote (crystals), hyalite (colorless-with a nice green fluorescence) and a few as yet unknown minerals. Rarely some of the quartz crystals are amethyst color.

Most of the veins were filled with a greenish mineral that turned tan to brown on losing it's moisture and dried up and cracked as it shrunk. Some of the veins had a green, white, tan or brown fiberous botryoidal coating covering fluorite, quartz and siderite crystals. Micro pyrite and pyrrhotite crystals were often perched on these coatings and when the coatings dried up, the crystals fell off. Another unknown mineral was black prismatic crystals that were dull surfaced and were sometimes altered on the tips or completely to a whitish mineral. These formed usually on larger siderite crystals or on quartz crystals. Small massive garnet was found associated with magnetite and molybdenite on one specimen. This location occurs in the Scituate granite gneiss according to the bedrock geology map of the North Scituate Quadrangle by Alonzo W. Quinn, Professor Emiritus of Brown University of Providence, Rhode Island. This map is available from the U.S. Geology Survey, Washington 25, D.C. This rock is a finer grand version of the Scituate granite gneiss and shows a more schistose structure and partly granitized inclusions of schist, many of the inclusions contain veins of dark purple fluorite. This rock contains feldspar(microperthite, microcline and albite), quartz, dark green biotite, and minor minerals are muscovite mica, chlorite, allanite, zircon, fluorite, garnet, magnetite, epidote, apetite, and kellhauite (titanite or sphene variety containing about 12 % $(Y,Ce)_2O_3$).

Blasting for both these roads and their intersection has been a boon for local collectors, with finds of scheelite crystals, micro beryl and prismatic bertrandite crystals, as well as bertrandite in large platy crystals in quartz in a brown beryl vein. When I think of all the good minerals that have been blasted out and quickly covered up by road constructors ! If you have a road cut in your area get out and look, you may be pleasantly surprised at what you might find. Once the road is completed, collecting is out and would be dangerous to both you and to the drivers.

Gilbert G. George

DON'T MISS THE DOOR PRIZES!

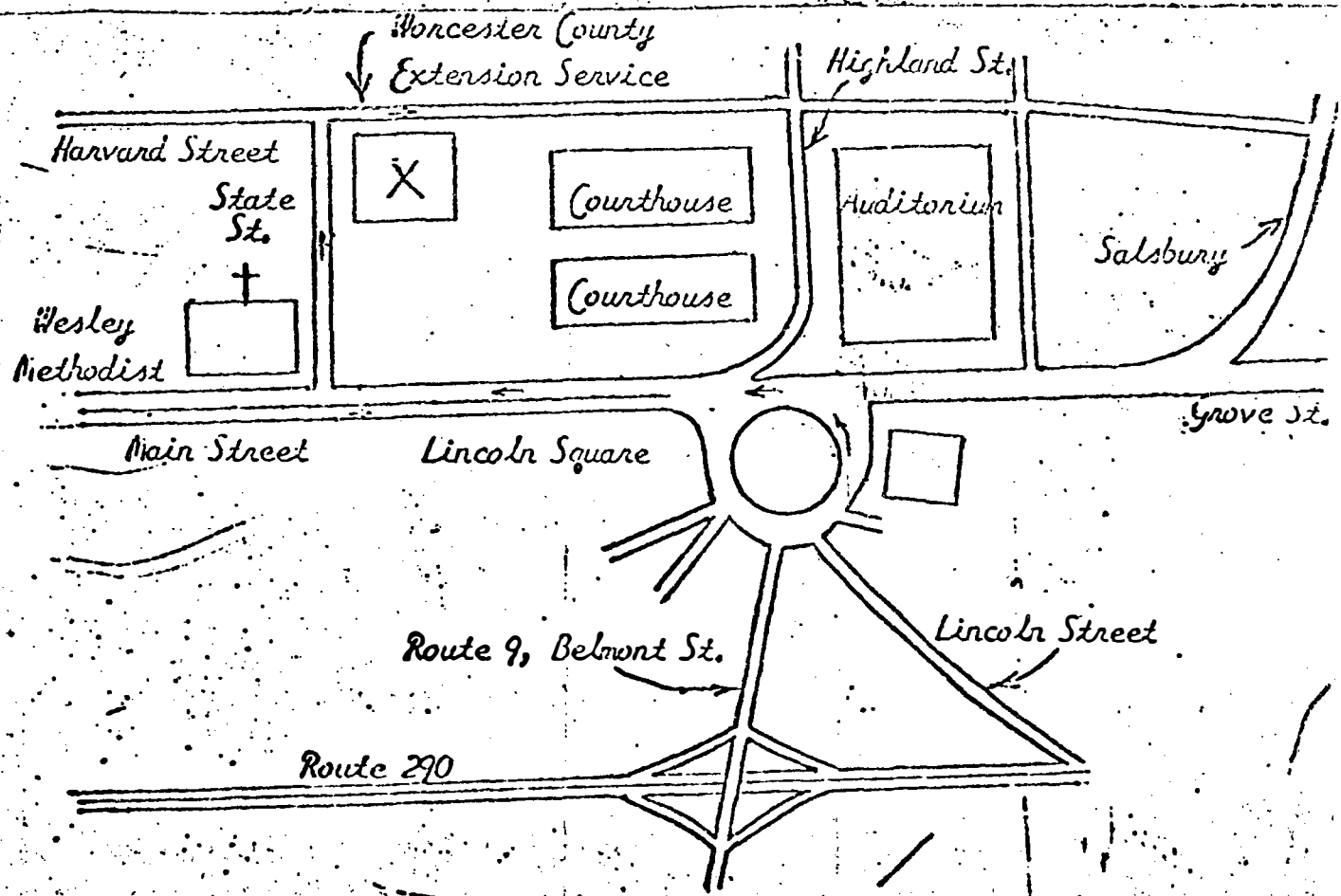
No. 18

MICROMOUNTERS OF NEW ENGLAND

The next meeting of the Micromounters of New England will be held on Saturday, September 30, 1972, from 10:00 A.M. to 4:00 P.M., at the Worcester County Extension Service Building in Worcester, Mass. Below is a map of the immediate vicinity. It is at the corner of State and Harvard Streets.

To get there from Route 290, take the Lincoln Street exit or you can take the Route 9 exit west (Belmont Street) to Lincoln Square, go three-quarters of the way around and straight ahead on Main Street. At this point it is divided. Then take the right turn at State Street to Harvard Street, turn right at Harvard Street and park in the parking lot at the Worcester Extension Service Building.

Slides will be shown by Gil. Giveaways, trading and door prizes. Come one - come all - see you there.



MICROMOUNTERS OF NEW ENGLAND

The next meeting of the Micromounters of New England will be held on Saturday, April 7, 1973, from 10:00 A.M. to 4:00 P.M., at the Worcester County Extension Service Building in Worcester, Mass. Below is a map of the immediate vicinity. It is at the corner of State and Harvard Streets.

To get there from Route 290, take the Lincoln Street exit or you can take the Route 9 exit west (Belmont Street) to Lincoln Square, go three-quarters of the way around and straight ahead on Main Street. At this point it is divided. Then take the right turn at State Street to Harvard Street, turn right at Harvard Street and park in the parking lot at the Worcester Extension Service Building.

New slides of St. Hilaire Minerals will be shown. It has been a long time between meetings, so come one, come all. Ted Agos will discuss his plans for a Micromounter's Symposium next Fall.

DOOR PRIZES WILL INCLUDE:

Eucryptite Xls (Fl) - Foote Mine, Kings Mtn.	$5.
Hydrozincite Xls (Fl.) Mapimi, Mexico	$1.
Spangolite Xls - Yarrington, Nevada	$1.
Volborthite Xls, Monument Valley, Arizona	$1.
Anacite Xls, Flinders, Australia	$0.50
Azurite "Geode", Mohab, Utah	$0.50
Dioptase Xls, Tiger Mine, Arizona	$0.50
Rhodonite Xls in Galena, Broken Hill, Australia	$0.50

DUES NOTICE ENCLOSED

Payable by all, except two new members who paid 9/72. (W. Lindeger and M. Saums) at next meeting or by mail to: R. Carr, Treasurer. There were no Dues collected in 1971, except from new members.