

## 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. 279

April, 2007

### OFFICERS 2006-2007

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(617) 372-7706  
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#### Current Meeting

Saturday, April 21<sup>st</sup>  
Trinity Lutheran Church,  
170 Old Westford Rd.,  
Chelmsford, MA  
Doors open at 9 am

Map and driving  
directions are on page 8

#### Next Meeting

Saturday, May 19<sup>th</sup>  
Elks Lodge, Hudson, MA

For information regarding  
**MEETING CANCELLATION**  
due to inclement weather,  
contact:

Tom Mortimer  
(603) 673-4039  
tmort@comcast.net

### From the editor

The 2007 field-collecting season is on! Snow has deserted most of New-England and it's time to think about new places (or old acquaintances) to visit. Speaking of snow, the March meeting was cancelled due to the last Nor'easter, so there is no secretary report in this newsletter.

The collecting dates for Mont St-Hilaire have just been released. For those of you who are not web-connected and who don't receive the CMMA Newsletter, here are the dates you should book for a trip north:

May 26 & 27 ☀ June 30 ☀ July 21 ☀ September 1

Although collecting has been quite poor in the past few years (at least for me), work has continued on the huge piles of collected material, and species are still added to the ever-increasing list of MSH minerals. Bill Henderson and László Horváth recently reported three new sulfates (**römerite**, **paracoquimbite**, and **boyleite** – see page 4). Three more rare silicates from sodalite xenoliths were reported by Peter Tarassoff (Micronews vol. 41-2, 2007): **cancrisilite**, **litvinskite** and **kapustinite**. At least one more mineral with MSH as the type locality has been published last year and two more are under way for 2007 (plus everything I missed):

- **Johnsenite-(Ce)**,  $\text{Na}_6\text{Sr}_{12}\text{Ba}_2\text{Zr}_{13}\text{Si}_{39}\text{B}_4\text{O}_{123}(\text{OH})_6 \cdot 20 \text{ H}_2\text{O}$ , Grice & Gault, Can. Min. 44: 105-115, 2006.
- **Martinite**,  $(\text{Na,Ca})_{11}\text{Ca}_4(\text{Si,S,B})_{14}\text{B}_2\text{O}_{40} \cdot 4\text{H}_2\text{O}$ , McDonald & Chao, Can. Min. 45, in press.
- **Gjerdingenite-Na**,  $(\text{K,Ba,Na})(\text{Ti,Nb})(\text{Si,Al})_2(\text{O,OH})_7 \cdot \text{H}_2\text{O}$  (labuntsovite group), Pekov et al., Can. Min. 45, in press.

So, for the MSH addicted, get back to your stack of boxes, and head back north. There is still work to do!

After a long search, our president, Tom Mortimer, has finally found a location for our April meeting. I hope this will be the last search, and that we can finally settle on a meeting place. I would like to thank Tom and Norm for all the time they spent trying to secure meeting places this year! On another note, our May meeting is coming soon. We need specimens for the sales tables and the auction, and we need giveaways. Whatever you can bring at the April meeting won't have to be dealt with in emergency on the morning of May 19<sup>th</sup>! (*continued on page 6*)

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 \$12/year for a single person and \$16/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.

#### Officers for 2006-2007

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## **2007 CALENDAR OF UPCOMING EVENTS**

### **April 2007**

- 14-15 – Rochester NY Mineral Symposium,
- 15-16 – Annual show Maine Min. & Geol. Society; Univ. of New England gym, Stevens Ave. Portland ME; Sat 10-5, Sun 10-5; contact Sheryl Gandy, 513 Main St., Monmouth, ME 04259.
- 21 – MMNE meeting, Trinity Lutheran Church, 170 Old Westford Rd, Chelmsford MA; doors open at 9 am; map and directions on page 6
- 28-29 – 35<sup>th</sup> annual show, Franklin-Ogdensburg Mineralogical Society, Franklin School, Washington Ave., Franklin NJ; Sat 9-5:30, Sun 10-5; Sterling Hill Mining Museum, (973) 209-7212

### **May 2007**

- 4-6 CMMA 44th Annual Symposium, Brock University, St. Catharines, Ontario. Bill Lechner at 416-438-8908, [bill.lechner@rogers.com](mailto:bill.lechner@rogers.com) or Mike Skebo at 905-681-2073, [mfs843@cogeco.ca](mailto:mfs843@cogeco.ca)
- 5-6 – Topsfield, MA: 44<sup>th</sup> annual show; North Shore Rock & Mineral Club; Topsfield Fairgrounds, Rte. 1 N; Sat. 9-5, Sun. 10-4; contact Joe Weisberg, (781) 861-6653; Web site: [www.nahant.com/nsrmc](http://www.nahant.com/nsrmc).
- 11-13 – Maine Mineral Symposium; Senator Inn, Augusta Maine; Woodrow Thompson (207) 287-7178 website: <http://www.maine.gov/doc/nrimc/mgs/explore/minerals/symposium.htm>
- 19 – MMNE May Meeting, Hudson, MA – doors open at 9:00 am (more information on page 7)
- 26-June 3 – Maine Pegmatite Workshop
- 26-27 Fieldtrip to the Poudrette Quarry, Mt-St-Hilaire, Québec (see note on page 1)

### **June 2007**

- 23-24 - Gilsum, NH 42nd Annual Rock Swap and Mineral Show, Gilsum Elementary School, Rt. 10, Gilsum, NH
- 30 Fieldtrip to the Poudrette Quarry, Mt-St-Hilaire, Québec (see note on page 1)

## Mineral Hardness Testing

*Tom Mortimer*



Mineral hardness is a property that should be one of the first determined by a collector seeking to identify the species of an unknown. I constructed my first hardness set over 20 years ago by epoxy gluing small pieces of minerals of Mohs Hardness scale 2 – 8 onto short lengths of dowel.

However, the sharp point, (or edge), on the small mineral bits on my hardness “pencils” wore away quickly. To reduce the wear, I learned to start with the hardest point and work my way softer when testing unknowns. The usual hardness determination method is to attempt to scratch the unknown with the point. Any powder produced by the scratch is blown

or rubbed off before verifying the presence of a scratch on the surface of the unknown mineral, (and not an abrasion residue left from the hardness point). An eye loop or stereo microscope is often useful in the scratch examination. Last year I decided to spring for one of the commercially made hardness pencil sets. I bought the “Deluxe Hardness Pick Set” from Mineralab, \$69 plus shipping, (<http://www.mineralab.com/Hardness.htm>). Photos of this pencil set are below.



Although a bit “pricey”, I have not regretted this purchase. The quality is first class. Each point, hardness 2 – 9, is retained in a machined metal, (brass?), holder. The hardness points are not minerals, but rather appropriately hardened metals, or in the case of hardness 2, plastic. The set comes with a small sharpening “stone” to restore the original point, when it becomes dulled with use. The points can be maintained very small and sharp; so small, in fact, that with care and practice, the hardness of 1 to 2 mm micro crystals can be ascertained under a stereo microscope!

The hardness set is packaged in a “mahogany finished” wooden case, secured with a, knurled, brass screw. The set also includes small sheets of brass, (labeled as hardness 3.5), and glass, (labeled as hardness 5.5). Scratch your unknown against these plates first to determine a quick starting point for pencil testing. A small magnet is provided to assist in the identification of several common magnetic minerals, (e.g. magnetite, pyrrhotite, ilmenite). And finally, a small ceramic streak plate is included for checking the unknown’s streak property.

## **Römerite and Paracoquimbite, two new sulfates found at Mont St-Hilaire**

*Bill Henderson*

A few months ago, I was running the optics of unknowns collected in the distant past by Charlie and Marcelle Weber from the Poudrette Quarry, Mont St-Hilaire, Quebec. One sample, contained in a small micromount box with no label and jammed in a beer flat of miscellaneous Mont St-Hilaire specimens, consisted of deeply corroded fragments of pyrite and, perhaps, marcasite. On the pyrite were three brightly colored minerals, presumably sulfates, as described below.

**Pink crystals** – On the surface of etched pyrite, spherules or clusters of equant, euhedral, translucent, pink crystals with vitreous luster, maximum size 0.2 mm. Mineral soluble in water, and gave pronounced, positive tests for ferric iron and sulfate. Studied optics as my U651. Because of small size, could only determine indices at their two extinction positions; found them to be in the ranges 1.542-1.560 and 1.570-1.578. Properties did not match the color, morphology and indices of any one of the six iron sulfates reported from MSH.

**Yellow crystals** – Also present a considerable amount of a mustard to lemon yellow unknown with a vitreous luster in clusters and crusts of translucent to opaque, equant crystals to 0.1 mm in size. No optical study attempted.

**Colorless to white crystals** – Less interesting and in smaller amounts, white to colorless crystals, both equant ones in clusters and occasional acicular ones. Very little of these was present, and as time passed, they gained or lost water to form nondescript, cotton-like fuzz. No study attempted.

Suspecting that the pink crystals were a new species for MSH, I sent a sample to Andy McDonald, who determined by XRD that the pink and yellow unknowns are **Römerite and Paracoquimbite**, respectively, both new species for MSH.

Subsequently, a sample was sent to László Horváth, who then found pink and yellow crystals identical in appearance to the above on old material he and Elsie had collected in a miarolytic cavity prior to 1988. They were associated with melanterite and halotrichite (identified by XRD by George Chao), and were on a substrate of marcasite and pyrrhotite. This is of considerable importance because there existed the



remote possibility that the Weber specimen, while in a beer flat of MSH material, was actually from some other locality.



*Pink crystal aggregates of  
**römerite** on pyrite.  
Individual crystals are 0.1-  
0.2 mm in diameter.  
Field of view ~3 mm wide.  
László Horváth specimen  
and photo*

**Sight identification of  
römerite and paracoquimbite**  
- László and the author are of  
the opinion that, seeing these  
two species with their  
distinctive colors and habits, in  
association with each other and  
with sulfides is, sufficient for  
sight identification. To those  
who are into optics, I might add  
that the indices I determined  
correspond to  $\alpha'$  and  $\gamma'$ , and fall  
between ( $\alpha$  and  $\beta$ ) and ( $\beta$  and  $\gamma$ )  
respectively for römerite, as  
they should.



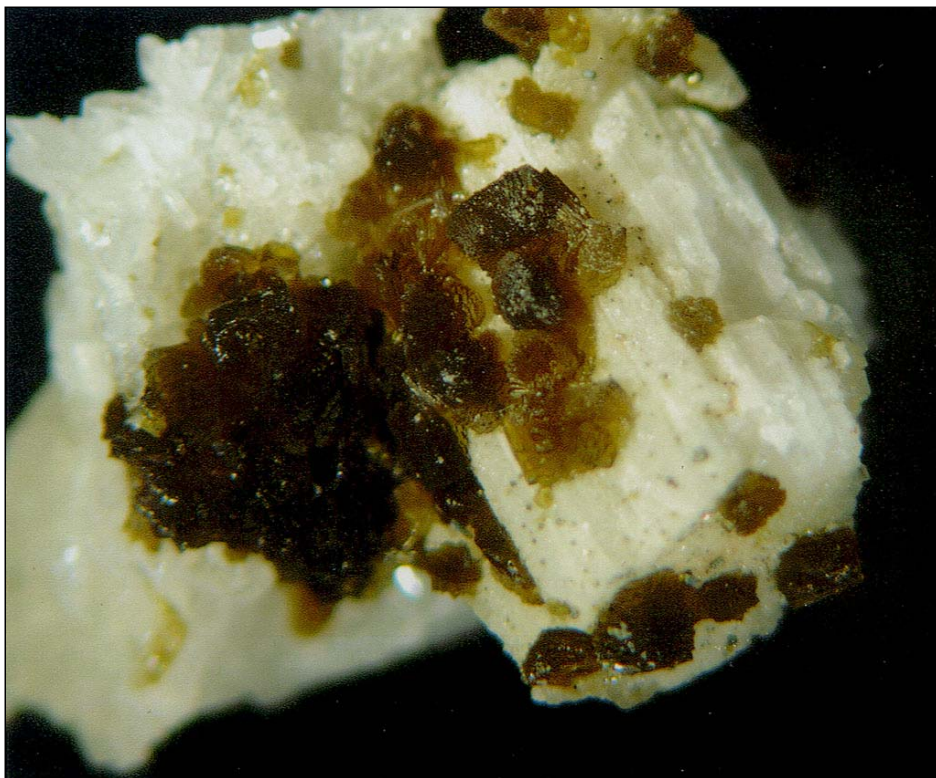
*Aggregates of yellow  
**paracoquimbite** on marcasite.  
Individual crystals are <0.2  
mm in diameter.  
Field of view ~3 mm wide.  
László Horváth specimen and  
photo*

*This article was initially published in Micronews, the Newsletter of the Canadian Micro Mineral Association, vol. 41-1, January 2007. More discussion on secondary sulfates at MSH can be found in volumes 41-1, 41-2 and 41-3 of Micronews.*



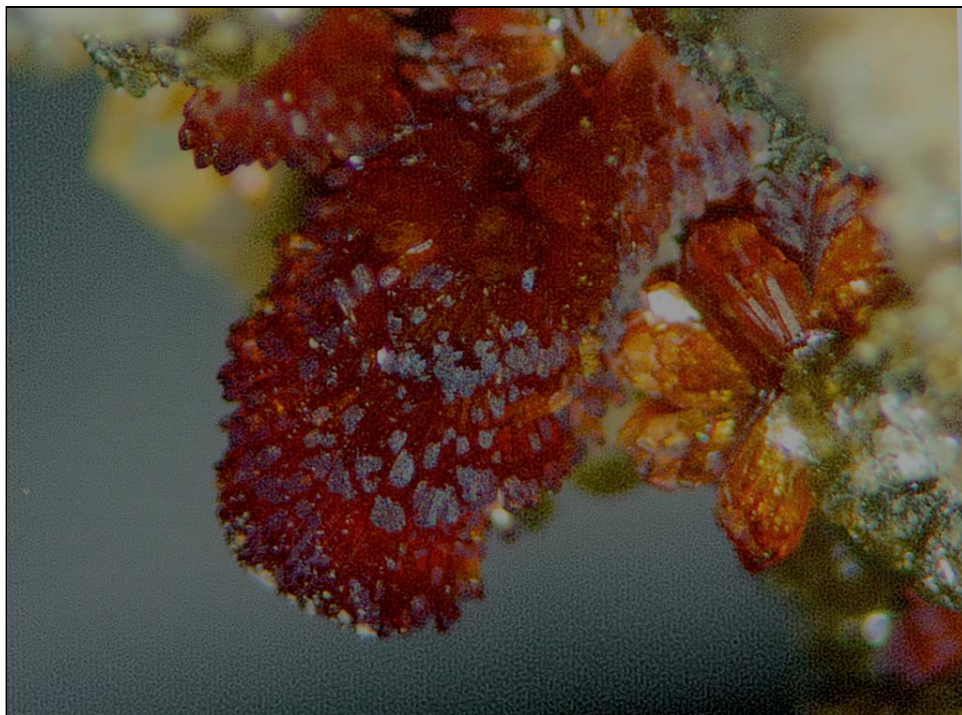
*From the editor  
(continued from page 1)*

Some months ago, I asked for phosphate pictures to make a photo album. So far I have only got two nice pictures from Gene Bearss, that I am reprinting below. I you have nice pictures of phosphate minerals, either digital or paper copies, feel free to send them to me so that I can add a little bit of color to the Newsletter. There is also space for pictures on the website... Even if those are not phosphates, they will be welcome...



Eosphorite crystal group  
Estes Quarry, Baldwin,  
Cumberland Co., Maine.  
Collection & Photo Gene Bearss

Roscherite/Greifensteinite on  
Beryllonite. Estes Quarry, Baldwin,  
Cumberland Co., Maine.  
Collection & Photo Gene Bearss



## MMNE MAY MEETING ADVANCE NOTICE

Our Annual Reunion Meeting will be held on Saturday, May 19, 2007 at the Elk's Lodge in Hudson, MA. The meeting starts at 9:00 am. If you can come earlier to help set up tables, etc. it will be appreciated.

We need specimens for the sales table. Please bring your donations to the March or April meeting for color coding. If you are not able to attend any of these meetings please label all sales items with either a priced sticker or price code dot (yellow/\$ 1, red/\$2, green/\$3, blue or silver/\$4, orange or gold/\$5). Any item over \$5 needs a price marked on it. We are very pressed for time in the morning and there will not be time for anyone to price specimens, although colored dots can be applied if the specimens are grouped by price.

The more that can be done before May 20<sup>th</sup> the less confusion and stress on the day and we can all have fun.

Please remember: Your registration fee covers only part of our operating expenses – your donations cover the rest. If you have any questions regarding giveaway or sales items, please contact Hal Herard – phone 508-755-5947 or e-mail: [hherard1@rcn.com](mailto:hherard1@rcn.com).

All reservations include lunch and must be in the treasurer's hands before May 13<sup>th</sup>. Walk-ins can pay at the door, but extra meals may not be available. Please fill out the Registration Form as soon as possible.

## SPEAKER PRESENTATION

James Nizamoff will be the featured speaker at the Grand May Meeting of the Micromounters of New England on Saturday, May 19.

His presentation will focus on the pegmatology and mineralogy of the Palermo 1 & 2 Mines. The professional in geological sciences as well as to the mineral collector alike knows Jim. He started as a mineral collector at age seven in Putnam, Connecticut and went on to earn his Master of Science in Geology from the University of New Orleans. One of his prime research interests has been phosphate mineralogy and paragenesis of granitic pegmatites around the world. In the course of his academic career he has given innumerable oral presentations at the Rochester Symposia with many of them (as well as others) published in *Rocks and Minerals* and *The Mineralogical Record*. Jim has had wide ranging field experience from the Maine Pegmatite Camp, to work in Madagascar and field work in Namibia, Brazil and across the United States. He is currently working as a mineralogist for Omya, Inc. in Vermont.

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## REGISTRATION FORM

**REGISTRATION FEE: Members \$20, Non-members \$25**

**Make checks payable to: Micromounters of New England (MMNE)**

**Return to: Anna Wilken**

**79 Meadow Lane, Campton, NH 03223**

**Name(s)** \_\_\_\_\_ **@ \$20 each**

**Name(s)** \_\_\_\_\_ **@ \$25 each** \_\_\_\_\_

**Address:** \_\_\_\_\_

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**Please return by May 13<sup>th</sup>, 2006, the closing date for ordering a meal.  
48 hours notice is required for cancellation with refund.**

**DIRECTIONS TO TRINITY LUTHERAN CHURCH, CHELMSFORD MA**

170 Old Westford Rd., Chelmsford, MA.

From Rt 3, take Exit 32, (The "Drum Hill Rotary"). From Rotary, Take Old Westford Rd. towards Westford for about .85 miles to Grandview Rd. Entrance for Trinity Lutheran Church on left. Proceed up rather long driveway to parking area. If things go according to plan, we should be able to use the entrance on the far left side of the church. Our meeting room is just inside this entrance.

Those coming from the south may want to try an alternate route, exiting from Rt 495 at Exit 33, then taking Rt 4 north to a left onto Davis Rd.... see map below.





**BALLOT FOR ELECTION OF OFFICERS**  
**Micromounters of New England**  
**2007-2008**

The election will be held during the business meeting of the April 21, 2007 monthly meeting of the MMNE to be held at the Trinity Lutheran Church, 170 Old Westford Rd., Chelmsford, MA. Ballots may be cast at that meeting, or filled out and mailed to the secretary, Robert Wilken, 79 Meadow Lane, Campton, NH 03223 (603) 536-2013 [microxl@mfire.net](mailto:microxl@mfire.net)

Ballots must be signed and received by the Secretary prior to April 21, 2007.

	<u>Nominated</u>	<u>Write-in</u>
President:	Mike Swanson	_____
Vice President:	Joe Mulvey	_____
Secretary:	Robert Wilken	_____
Treasurer:	Anna Wilken	_____

Name (print): \_\_\_\_\_

Signature: \_\_\_\_\_

Election of directors to be discussed at the April meeting.

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