

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. 305

April, 2010

OFFICERS 2009 - 2010

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Current Meeting

Saturday Feb. 20, 2010
Trinity Lutheran Church
Chelmsford, MA
Doors open at 9 am

Next Meeting

Saturday Mar. 20, 2010
Trinity Lutheran Church
Chelmsford, MA

Map and driving
directions are on the
last page of this
newsletter

For information
regarding **MEETING
CANCELLATION** due to
inclement weather,
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Welcome to the April edition of the Micromounters of New England Newsletter!

REMINDER: APRIL MEETING DELAYED TO APRIL 24

April Meeting Mark your calendars now! The April meeting will be on Saturday, April 24 instead of the 3rd week in April. This is meant to accommodate the large number of members attending the Rochester Symposium who will be picking up massive amounts of giveaways from the Micromounters Playroom to share with us at the May symposium.

March Meeting The March meeting was a hot bed of interest because of the mineral competition. Non-rare earth beryllium minerals certainly piqued the interest of the club! I am not sure how we will top that for April. My proposal is for elements of New England, so bring in your favorite micro of copper, gold, silver, graphite, diamonds, etc., etc., etc., and see if you can walk away with the grand prize as **Bob Janules** did in March for submitting his awesome Bertrandite on Quartz for inspection by the club. The March meeting was once again very well attended and great conversation was enjoyed by all.

A hearty welcome back to **Angie Texiera** who attended the March meeting much to the pleasure of many of our long time members. Angie's history with the club both as a member and as a mover and shaker as an officer is hereby recognized and appreciated. Angie is an active participant in the EFMLS Wild Acres program.

2010 May Symposium is less than a month away! Deadline for registration with a guaranteed meal is May 8. Please register at the April meeting or sooner.

Bring your donations to the April meeting for color coding. We hope that each MMNE member donates ten to fifteen specimens for the sales table and a couple of flats or egg cartons of material for giveaways, so that there will be plenty for everyone. Please remember: **Your registration fee covers only part of our operating expenses – your donations cover the rest.**

We also need items for the silent auction which could include hardware, books, posters, other printed material, and mounting supplies (or anything else to pique the interest of a micromounter).

If you have items for the auction, please tell us what you have at the April meeting so tags can be made in advance. If you cannot be at any of these meetings, e-mail me, Joe Mulvey, at bassmeister_2000@yahoo.com or call at 603-880-4018.

Please bring your donations with you to the meeting, or get them to Hal Herard ahead of time. Please put prices on your donation whenever appropriate. If you are bringing mounted material for sale, please color code them with price stickers (dots) as follows:

\$1.00 yellow, \$2.00 red, \$3.00 green, \$4.00 silver, \$5.00 gold.

Anything above \$5.00 needs to have an actual price tag.

If you do not have the colored stickers, group them by price category, and they can be marked at the meeting.

While the symposium officially convenes at 9:00AM, anyone who can come in earlier to help set up the various venues (sales, silent auction, etc.) will be appreciated.

Please sign up promptly for the meeting so that we can get an accurate count for the caterer. Bring a friend or two if you can. There is plenty of space. All reservations include lunch so they must be in the treasurer's hands before May 8th. Walk-ins can pay at the door, but extra meals may not be available.

Worst U.S. coal mining disaster since 1970 With that horrible mining disaster in West Virginia, I am sure all of our hearts go out to those poor souls and their families. My impression is that mining for a living is probably more dangerous than being an astronaut and spacewalking to repair lunar equipment. Not so publicized was a similar accident in China a week earlier where well over 100 workers were lost. When the greed of a mine owner overrides the importance of safety, something is wrong.

See you on April 24th!

The **Newsletter** is the official publication of the Micromounters of New England (MMNE). The last by-laws revision was May 16, 2009. 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. Meeting sites may change 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 \$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.

Officers for 2009-2010

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MMNE Website: <http://www.micromountersofnewengland.org>

Schedule of Upcoming Meetings

Saturday, April 24, 2010.....New England Elements Competition

Saturday, May 15, 2010.....The 2010 Micromounters of New England Annual Symposium

Lunar Mineralogy

by Andrew A. Sicree

A dearth of samples

Mineralogists who would study lunar mineralogy face a dearth of samples. Apart from tripping to the Moon by yourself in your own private spacecraft, there are only two sources of lunar minerals: samples returned by the American and Russian lunar missions, and lunar meteorites.

Lunar meteorites are meteorites that have their origin on the Moon. Blasted off the Moon by the impact of a “bolide,” a large asteroid that impacted on the Moon, some lunar rocks picked up enough speed to escape the Moon’s gravity. Lobbed into outer space by the force of the impact, some lunar rocks are swept up by the Earth’s gravitational field and fall to the ground as lunar meteorites. Several of these meteorites are known and they command hefty prices when sold. We only know that they are of lunar origin because we have other lunar minerals with which to compare them.

For example, pieces of the meteorite known as NWA 4734 were purchased from nomadic Bedouins in Erfoud, Morocco. The Bedouin found it somewhere in the trackless deserts of Northwest Africa. The Bedouin have learned that meteorites can be sold for a good price, and they have begun picking up black rocks in the desert that they otherwise would have ignored. They have become the world’s most accomplished meteorite finders. (Although it had been customary to name meteorites after towns near which they fell, the Bedouin have found so many meteorites in the uninhabited wastelands of North West Africa that meteorite specimens found in the desert are given the “NWA” tag followed by a serial number.) NWA 4734 is composed of highly fractured pyroxenes with plagioclase laths and minor amounts of silica and silica-feldspar glass. Accompanying minerals include ilmenite, baddeleyite, zirconolite, tranquillityite, and pyrrhotite – enough to make it a pretty interesting rock even if it didn’t come from the Moon.

Six Apollo missions reached the Moon and returned with samples. Nearly 2200 samples weighing a total of 842 pounds (382 kg) were collected by American astronauts between 1969 and 1972. Russian robotic landers returned about 0.75 pounds (0.3 kg) of lunar rocks. The mineralogy of the collected lunar rocks and soils has been studied extensively and from these studies we can draw up a preliminary mineralogy of the Moon.

Lunar minerals are like Earth’s

Some new minerals, such as tranquillityite and armalcolite, were first encountered among the Apollo samples. Tranquillityite, $(\text{Fe,Ca})_8(\text{Zr,Y})_2\text{Ti}_3(\text{O}_4\text{SiO}_4)_3$, hexagonal, is named after its discovery locality, the Sea of Tranquility on the Moon. The mineral armalcolite, $(\text{Mg,Fe})\text{Ti}_2\text{O}_5$, orthorhombic, is derived from the surnames of Apollo 11 astronauts Neil

Armstrong, Edwin Aldrin, and Michael Collins, who collected the first specimens. Subsequently, some of these unusual “lunar” minerals have also been found on Earth. For instance, armalcolite is reported from the Kerguelen Islands in the southern Indian Ocean.

Generally speaking, most minerals found on the Moon are also found on the Earth, but not vice-versa. The absence of water and an atmosphere prevent the formation of common Earth minerals such as goethite (FeOOH). But this does not mean that there are no oxides on the Moon.

Lunar mineralogy

Oxide minerals found on the Moon include ilmenite, spinels, armalcolite, and chromite. Ilmenite is worth noting because it occurs in some lunar rocks in much higher concentrations than in similar Earth rocks.

Lunar silicates include pyroxenes, plagioclase feldspar, olivine, zircon, tranquillityite, and garnets. Pyroxenes such as augite and pigeonite are among the most abundant minerals in the Moon’s crust.

Crystalline silica in the form of quartz, tridymite, and cristobalite is found on the Moon, but quartz is much less common than it is in Earth rocks. The crust of the Moon is less evolved than the Earth’s crust. There has been much less magmatic activity on the Moon and thus less opportunity for quartz to be formed by magmatic differentiation, i.e., to segregate as quartz crystals from a magma – the way quartz forms in granites, for instance. Although not technically minerals, silica and silica feldspar glasses are also found. They formed due to rapid cooling of molten rocks produced by meteorite impact or lunar volcanism.

Olivine is a common mineral on the Moon. Olivine’s general formula is $(\text{Mg,Fe})_2\text{SiO}_4$ and it exists as a solid solution series ranging from the magnesium-rich end member forsterite (Mg_2SiO_4) to the iron-rich fayalite (Fe_2SiO_4). Lunar olivines have a wide range of compositions but most tend toward the forsterite end of olivine series. But almost pure fayalite has been found on the Moon, too.

Troilite is a common lunar sulfide mineral. Native iron and other metals (such as nickel) also occur. Other lunar minerals include schreibelite, cohenite, niningerite, and lawrencite. Interestingly, the phosphate minerals apatite and whitlockite were also found.

Extreme age of lunar minerals

Lunar rocks are extremely old. Samples have been radiometrically dated at between 2.8 and 4.5 billion years old. Rocks this old are rare on Earth. Among the oldest non-meteoritic Earth materials are 4.03 billion year old rocks from northwestern Canada. Tiny crystals of zircon from Western Australia are thought to be at least 4.38 billion years old – making them the world’s oldest minerals. The antiquity of lunar rocks gives planetary geologists the opportunity to study actual samples of rocks that formed at the time the crust of the Moon solidified (presumably the same time that the crust of the Earth formed).

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A Cometary Mineral

How can you catch a comet? And if you could catch a comet, what minerals would you find in it?

As a comet approaches the Sun, solar radiation spalls off particles of ice and dust. These dust particles fall behind the comet and get strung out all along the path of the comet’s orbit. Comets orbit the Sun in highly elliptical orbits that cross the orbits of planets like the Earth. When the Earth crosses the orbit of a comet, the Earth’s gravity field sweeps cometary particles. Larger particles burn up in the Earth’s uppermost atmosphere as meteors, but smaller particles slowly filter downward into the stratosphere. Dust particles found in the stratosphere are usually more likely to be filtering down from comets and disintegrating meteoroids than rising up from volcanoes and dust storms (the effects of which are usually confined to the troposphere).

In 2003, as the Earth crossed the orbital path of the comet “26P/Grigg-Skjellerup,” NASA sent up a high flying research plane equipped with dust collectors. Much of the dust collected on these flights is assumed to have come from the comet. Analysis of the dust led to the discovery of a new mineral, *brownleeite*.

Brownleeite (MnSi , cubic) has a unique chemical composition: manganese silicide. The fact that this mineral has not yet been found on the Earth (or for that matter, on the Moon) is evidence that the mineral formation environment of comets is drastically different than terrestrial environments. Brownleeite is named for Donald Brownlee, a University of Washington astronomer who is best known for his book *Rare Earth: Why complex life*

is uncommon in the universe. Brownlee has been a pioneer in the study of cometary dust, so the naming of a new cometary mineral after him is quite appropriate.

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Discovered Among the Fragments

Abbé René-Just Haüy (1743-1822) is rightfully known as one of the founders of modern crystallographic mineralogy because of his discovery of the “law of rational intercepts.” The law of rational intercepts states somewhat formally that each crystal has a set of axes, known as **crystal axes**, that allows a crystal face to be characterized in terms of intercepts of the face with these axes and that the reciprocals of these intercepts are small rational numbers.

That definition is a bit hard to wrap one’s mind around, so let me offer some background to Haüy’s discovery:

Haüy, ordained a Catholic priest, developed a strong interest in botany. In the plant world, he observed order: each species of tree or flower always produced the same type of leaves or petals. It made sense to Haüy that God’s creation should be ordered. But evidence of order was lacking in the mineral world. Calcite crystals might be found as “dog-tooth spar” or rhombohedrons. Pyrite might come as cubes or pyritohedrons. Hundreds of forms were known. Haüy remained puzzled by the apparent lack of order.

A famous story is told in which Haüy, while viewing the mineral collection of a colleague, accidentally dropped a prize specimen of calcite. The calcite shattered when it hit the floor, breaking into hundreds of rhombohedral cleavage fragments. Stooping to examine the scene of misfortune, Haüy is said to have suddenly exclaimed, “*Tout est trouvé*” (“all is discovered” – the French equivalent to “Eureka!”).

At that instant, Haüy realized that the calcite was built up from a basic unit that he called an “integrant molecule.” Each “integrant molecule” was identical and each was the smallest possible portion of the calcite crystal. The calcite crystal was built up by stacking these “integrant molecules” side-by-side and one on top of the next in a three dimensional array.

Haüy hurried home to take hammer and chisel to specimens in his own mineral cabinet. He smashed dog-tooth spars, barrel-like crystals, and poker-chip calcite crystals. No matter what its exterior habit was, each calcite crystal broke into identically-shaped rhombohedrons. Haüy noticed that each calcite cleavage fragment could be cleaved again and again producing smaller and smaller rhombohedrons, each with the same angular shape.

Haüy thought that, for calcite, the “integrant molecule” was the shape of a cleavage fragment. Present-day crystallography varies in details from Haüy’s theory, but in general his ideas led to the modern concept of the three-dimensional “unit cell” – the smallest repeating unit of a crystal.

“Unit cells” or “integrant molecules” stack up to form crystals and the edges of the stacks define the faces of the crystals. Just as one can take rectangular sugar cubes and neatly stack them into a four-sided pyramid with triangular faces (doesn’t everyone do this in grade-school?), so also are the faces of crystals defined by the edges of its unit cells. Haüy could explain how the same basic unit could be stacked to yield forms as different as the “dog-tooth spar” and the rhombohedral crystal.

Before Haüy, mineralogy was largely an exercise in collecting various specimens with interesting but unrelated forms. After Haüy, mineralogy had become a science as precise and methodical as astronomy.

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Dr. Andrew A. Sicree is a professional mineralogist and geochemist residing in Boalsburg, PA. This **Popular Mineralogy** newsletter supplement may not be copied in part or full without express permission of Andrew Sicree. **Popular Mineralogy** newsletter supplements are available on a subscription basis to help mineral clubs produce better newsletters. Write to Andrew A. Sicree, Ph.D., P. O. Box 10664, State College PA 16805, or call (814) 867-6263 or email sicree@verizon.net for more info.

Nabesite Did anybody notice in last month's newsletter the chemical formula for Nabesite? *Nabesite is a rare silicate mineral of the zeolite group with the chemical formula $\text{Na}_2\text{BeSi}_4\text{O}_{10} \cdot 4(\text{H}_2\text{O})$.* What I found interesting was that the elements also formed the name of the mineral. Na, Be, Si.

Australian Mineral Swap Opportunity Dear Joe, I came across your club newsletter while I was browsing the internet. I am a confirmed micromounter who started in 1981. At the time I was living in Tasmania, Australia, and during my time there, I collected extensively. Seven years ago, I moved to Queensland and, for health reasons, had to give up fossicking. I brought with me much rough material which I continue to work through and now have about 5000 boxed specimens. I have decided that I need to refine my collection and now wish to concentrate on specimens from Australia, naturally, and North America. With that in mind, I want to ask if there is anyone in you club who would like to swap micros from New England with me - two parcels of about 25 specimens a year would suit me. I do not seek very rare specimens but rather suites of minerals from an area or mine is the way I like to go. While in Tasmania, I developed a special interest in zeolites because of their availability there, but I am prepared to accept all kinds of crystalline minerals as long as they are not damaged or the damage can be hidden while mounting. I use plastic boxes measuring 1" x 1" x 3/4" and anything that can be trimmed to fit them is acceptable, even pin-head specimens.

If you can find someone, or a group, who is prepared to swap with me, I would like to send a parcel to indicate what I have and the standard of material I enjoy. Hoping to hear from you,
Brian Carney. <bcarney@tadaust.org.au> **Brian is looking to swap unmounted specimens.**

37th Rochester Mineralogical Symposium

Thursday, April 15 – Sunday, April 18 2010

P.O. Box 85, Manlius, NY 13104-0085

Steve Chamberlain - Chairman <sccham2@yahoo.com>

Helen Chamberlain - Registrar (315) 682-0387 <contactrms@hotmail.com>

Bruce Gaber - Exhibits (301) 654-7479 sun@visionrising.com

The Micromounter's Playroom continues (contact Quintin Wight <qwight@sympatico.ca>). Additional registration forms can be downloaded at <www.rasny.org> or <www.amfed.org/efmls> by following the link to the RMS. All in all, it looks like another year that will show why the Rochester Mineralogical Symposium is a highlight of the mineral calendar.

May Newsletter Will Post Member Contact List

As the headline states, we intend to post the club contact sheet in the May newsletter. If you prefer to remain anonymous or merely have your contact info withheld, please contact Joe Mulvey before May 8 for exclusion from posting.

The Maine Mineralogical & Geological Society Proudly Presents Our 27th Annual Gem and Mineral Show

Maine's Largest Mineral, Gem, Crystal, Fossil and Jewelry Show

Saturday, April 17, 2010 10:00 AM to 5:00 PM

Sunday, April 18, 2010 10:00 AM to 4:00 PM

Sullivan Gymnasium, University of Southern Maine, 96 Falmouth St., Portland, ME

Directions: TAKE I-295 – EXIT 6B & FOLLOW THE SIGNS

Admission: Adults \$4.00, Children (12 + under) – FREE, Seniors and Teens (18 + under) \$3.00

We have dealers presenting gems, minerals, fossils and jewelry from all over the world; demonstrations of gold panning and gem cutting; a silent auction and hourly door prizes. Children will enjoy the mini-mine, spin wheel, touch table and a FREE gift when leaving the show. Admission enters you into our Grand Prize Raffle drawn at the end of the show.

www.mainemineralclub.org or Call (207) 571-4522

2010 Southeastern New Hampshire Mineral Club Gem and Mineral Show April 24, 2010, 8:00 am to 3:00 pm, Dover Veterans Community Center, 156 Back River Rd. Dover, NH 03820
<http://senhmineralclub.org/gem-and-mineral-show>

March Specimen Competition results



Bob Janules - Bertandite on Quartz
North Sugarloaf Mountain
Bethlehem, New Hampshire

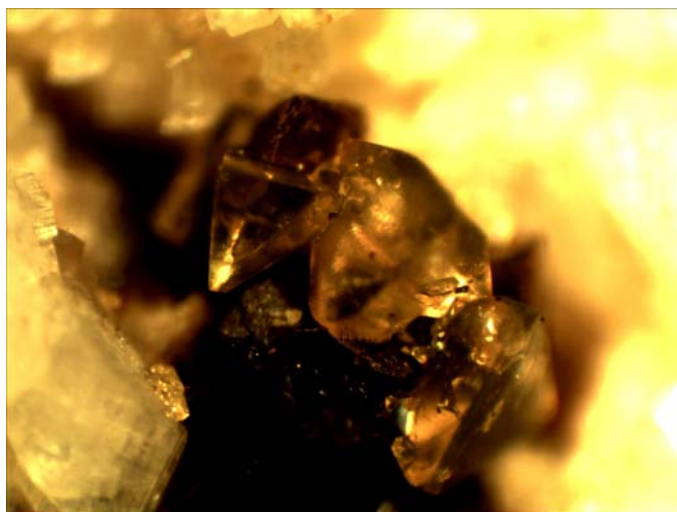


Anna Wilken – Beryl
Route 111, Trumbull, Connecticut

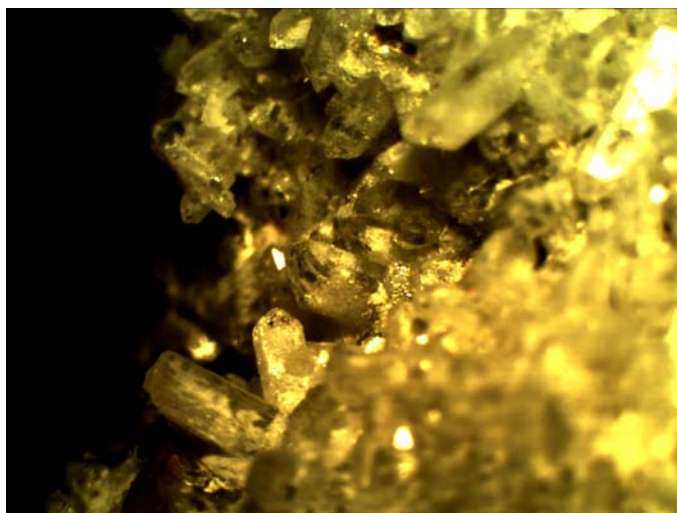
The March Specimen Competition was one of the most interesting and highly contested events to date. Many fine submissions of non rare earth beryllium minerals graced the competition table and the scorecards were all very close. These photos were all taken with the club camera during the meeting. Honorable mention goes to Dana Jewell, Inge Burggraf and Suzanne Wall for their submissions.



Tom Mortimer
Phenakite
Iron Mountain
Bartlett



Bob Janules
Genthelvite
North Sugarloaf



Pat Barker
Hydroxylherderite
Palermo no1

Crystal Matrix Crossword

Crystals Time and Space

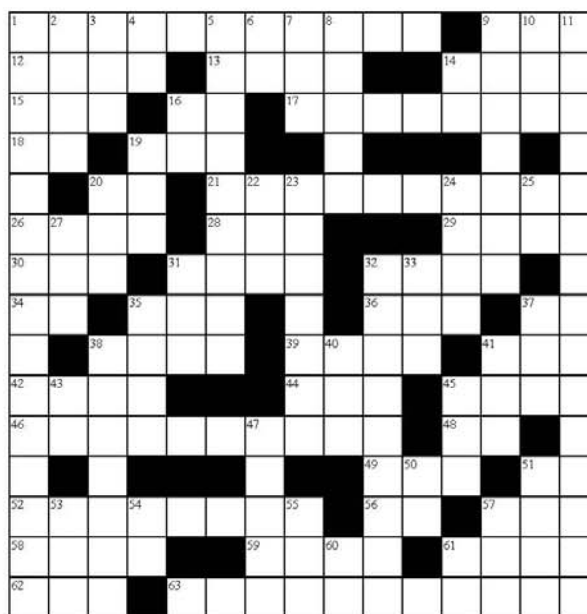
ACROSS

- 1 habit of chalcopyrite
- 9 Arabian market
- 12 made of mineral grains
- 13 grayish pale-yellow shade (beige)
- 14 volcanic island
- 15 year
- 16 owned by Tin Woodman
- 17 Cousteau's world
- 18 Nova Scotia
- 19 period of time (geological)
- 20 iridium
- 21 studies Moon rock chemistry
- 26 legbone of a mastodon
- 28 row rows your boat
- 29 follows a Mercedes
- 30 man's name
- 31 against
- 32 river in Austria
- 34 long-play record
- 35 snake around the neck
- 36 sent from Titanic
- 37 found in celestine
- 38 used in timbering mine
- 39 a really long time
- 41 Japanese fish
- 42 trigonal crystal (ab)
- 44 a Mayan language
- 45 yellow mineral/element
- 46 yttrium-bearing silicate
- 48 scale for oxidation state
- 49 transmission electron microscope
- 51 in morning
- 52 path we took notes along
- 56 radium
- 57 International Gemological Institute
- 58 Caesar said to Brutus
- 59 a type of fruit
- 61 entrance to a mine
- 62 seat of a bishop
- 63 astronauts' mineral

DOWN

- 1 placid lunar mineral

- 2 periods of time
- 3 total cost of ownership
- 4 radial keratotomy (ab)
- 5 system for beryl, quartz
- 6 European Commission
- 7 nickname for Drew
- 8 written by Vikings
- 9 fresher
- 10 ultra high energy (ab)
- 11 two silica minerals
- 14 Oregon Trail state
- 16 Diamond state
- 19 another geological time
- 20 no room at the ____
- 22 do it in a restaurant
- 23 folded paper art
- 24 business majors
- 25 element in stannite
- 27 used to polish slabs
- 31 Japanese for "colored"
- 32 crystal with 3 equal axes
- 33 opposite of a daughter
- 35 Czech for "digger"
- 37 our sun
- 38 darapskite, niter, etc.
- 40 ____ at Joe's
- 41 potassium hydroxide
- 43 right (ab)
- 45 sought after stone
- 47 a place-holder
- 50 each (ab)
- 51 shake, stir
- 53 route (ab)
- 54 another new
- 55 thermogravimetric analysis
- 57 former Ugandan dictator
- 60 equals C
- 61 aluminum



LAST MONTH'S SOLUTION: Iridium

S	C	U	P	R	O	I	R	I	D	S	I	T	E
H	A	U	N	T	P	A	G	U	R	A	Y		
O	K	L	C	H	E	N	G	D	E	I	T	E	
W	A	C	O	R	I	S		D					
M	H	A	A	R	R	O	W	H	E	A	D	S	
A	C	A	D	Z	U	M	A	T	R	I	P		
N	E	L	T	I	P	I	R	A	S	A	E		
S	C	O	L	L	E	C	T	I	B	L	E	R	
H	L	O	I	Y	R	E	P	I	N	I	R		
I	M	P	L	Y	S	M	O	O	I	L	Y		
P	H	Y	S	I	C	I	S	T	S	X	T		
		R			M	O	T	Y	E	T	I		
I	R	I	D	O	S	M	I	N	E	G	A	T	
T	U	T		R	K	O	G	G	E	O	D	E	
S	T	E	P	P	I	N	G	S	T	O	N	E	S

Micromounters of New England

Updated April 9, 2009

Constitution and Bylaws

Article 1

Section 1.

The name of this organization shall be the Micromounters of New England hereafter referred to as "MMNE".

Section 2.

The MMNE is organized to promote the study of minerals that require the use of magnification for better study and appreciation of their characteristics.

Section 3.

No member shall receive compensation for the performance of his/her duties as an elected officer of the MMNE.

Article 2.

Membership

Section 1.

"Members in good standing" are those persons who have been granted membership in the MMNE and are not in arrears in the payment of their dues. Hereafter the terms "member" or "members" shall be synonymous with the term "member in good standing of the Micromounters of New England."

Section 2.

All persons of the age of 19 or over who are interested in the study of minerals, especially minerals that require the use of magnification for better study and appreciation of their characteristics, are eligible to apply for membership in the MMNE.

Persons under 19 years of age who have a member serving as a sponsor may be allowed to apply for membership at the discretion of the officers.

Section 3.

The names of the candidates for membership shall be presented to the recording secretary at a regular meeting and shall be accompanied by dues for one year. Election to membership shall be reviewed by the membership chairperson and presented to the membership for approval by a simple majority vote at the next scheduled MMNE meeting at which a quorum is present.

Section 4.

Honorary membership.

Any person who is not a member of the MMNE and who has conspicuously promoted the study of microminerals or micromounting or has rendered significant service to the MMNE may be elected honorary membership. Each candidate for honorary membership

shall be presented to the executive committee by a sponsor who is a member with a letter of introduction regarding the reason (s) for nomination. Election to honorary membership shall be made by a two-thirds vote at the annual business meeting. Honorary members shall be exempt from the payment of dues, but honorary membership does not confer voting privileges and does not entitle the honorary member to receive a free subscription to the newsletter.

Section 5.

Life membership

Life membership may be conferred on any person who has been an actively participating member of the MMNE for an extended period of time, and who, for whatever reason, does not or cannot continue to participate in MMNE activities. Each candidate for life membership must be presented to a quorum of members at any club meeting. Life members shall be exempt from the payment of dues, shall have voting privileges, and shall receive a free subscription to the newsletter.

Section 6.

Members shall be entitled to attend all meetings, participate in all activities and receive a subscription to the Newsletter. Guests will be welcome at all meetings but will be required to pay dues if attending more than two (2) meetings within a twelve (12) month period. Members in arrears may participate in club activities under the rules for guests; they may not vote or be counted as part of a quorum and will not receive a Newsletter.

Section 7.

A membership list containing the names and other demographics of all members, including all life and honorary members will be distributed at least annually in the newsletter just prior to the annual business meeting to members and life members.

Section 8.

A member is considered to be in arrears when annual dues have not been paid by January 1 of the current year. Notification for renewal of membership shall be sent to each member in the November newsletter of the prior year. No member who is in arrears may be elected to office, serve on a committee, or continue as an elected officer without the approval of the Executive Committee.

Section 9.

The Executive Committee may, at a regular meeting, recommend to the membership expulsion of any member who breaks the AFMS or EFMLC code of ethics or whose attitude or conduct is considered extremely detrimental to the welfare of the MMNE. Such expulsion may be made only after the member has been given an

opportunity to show cause why the expulsion is not justified. A quorum of the Executive Committee must meet with member prior to the regular meeting. All members of the Executive Committee must be notified by the corresponding secretary of the planned meeting with the member.

Article 3

Officers and their Duties

Section 1.

Any member may run for and be voted into office. The officers of the MMNE shall consist of a President, Vice-President, Recording-Corresponding Secretary, Membership chairperson - Treasurer and the editor of the Newsletter, all of whom shall be elected at the annual business meeting or until their successors have been elected. A member may hold any two of these offices at the discretion of the Executive Committee and the membership except for the combination of President and Vice-President. No member of the Executive Committee may also hold the position of Treasurer.

Section 2.

The President shall preside at all meetings of the MMNE and shall preside as Chairman of the Executive Committee.

Section 3.

The Vice-President shall act as an aide to the President and shall preside in the absence of that officer. The Vice-President shall succeed the President should he/she vacate the office of the President or become incapacitated for any reason. The Vice-President shall continue to serve in that capacity until the President is able to resume the duties of the office of the President or until the next scheduled elections.

Section 4.

The recording secretary shall keep an accurate record of all the MMNE meetings and shall act as Secretary of the Executive Committee and perform other duties as are customary to the office.

Section 5.

The corresponding Secretary shall conduct the ordinary correspondence of the MMNE. Absentee ballots and election slates will be contained in the Newsletter in a timely fashion.

Section 6.

The treasurer shall be appointed by a majority vote of the Executive Committee and serve for a two-year term. The treasurer shall receive and disburse all monies, keep a strict account in writing of all monies which he/she may receive and disburse, retain written vouchers for

payments made and shall submit a written statement monthly and an annual report. All records, including receipts and vouchers shall be kept for a period of time consistent with Internal Revenue Service Rules and Regulation, made available for any audits, passed on to any successor and destroyed only with the explicit permission of the Executive Committee.

The Treasurer, acting as membership chairperson shall be responsible for maintaining a current membership and mailing list and shall report all additions and/or changes to the editor of the Newsletter on a timely basis.

Section 7.

The Editor shall produce and mail the Newsletter on a timely basis. The newsletter shall include a listing of the officer of the club and a schedule of upcoming meetings.

Section 8.

No member who is in arrears may be elected to office, serve on a committee, or continue as an elected officer without the approval of the Executive Committee.

Article 4

Executive Committee

Section 1.

The Executive Committee shall consist of the officers of the MMNE.

Section 2

The Executive Committee shall oversee all business of the MMNE and shall be responsible for all funds and properties of the MMNE. The Executive Committee shall appoint standing committees as necessary, approve the plans and work of standing committees and fill any vacancy which may arise in an office with that member serving until the next election of officers.

Section 3

The Executive Committee shall meet, (a) at the discretion of the President, (b) by request of three members of the board, or (c) by request of 10 members of the MMNE.

Section 4.

A quorum of The Executive Committee shall consist of the majority of the officers.

Article 5

Meetings and Elections

Section 1.

Meetings shall be held at such a time and place as arranged by the President or member designated by the President to perform this function.

Section 2.

The annual business meeting for the election of officers and the submission of reports of officers and committees shall be held during the regular meeting in April or at any other time agreed to by a two-thirds vote of a quorum of the members.

Section 3.

A slate of officers shall be published in the Newsletter and presented one meeting prior to the annual business meeting. Additional nominations from the floor

Article 6

Dues

Section 1.

Dues shall be payable on or before January 1st of each calendar year and shall not be prorated. The amount of the dues shall be adequate for the necessary expenses of the MMNE as demonstrated by the Treasurer's report, and shall be approved by a majority vote of members when a quorum is present. Any change in the amount of dues will become effective on January 1 of the next calendar year.

Section 2.

A member shall be considered in arrears if dues for the current year are not paid prior to January 1st of the current year. There will be a 30 day grace period during which the member will not be relieved of duties as an officer or committee member, but the member will be considered to be in arrears during that time. No Newsletter will be sent to any member in arrears. All members will receive the January Newsletter since it will be mailed prior to January 1st.

Section 3.

Renewal notices will be sent out with the November Newsletter with a reminder in the January Newsletter.

Article 7

Committees

Section 1.

Newsletter at least 30 days prior to the Annual Meeting. No absentee ballot shall be counted unless the corresponding secretary receives it prior to the Annual Meeting. It shall require a simple majority vote, including the absentee ballots, of the members, or a two-thirds vote of all cast ballots if a majority of members have not voted, to amend the by-laws.

Section 2.

It shall require a two-thirds vote of the members to change the name of the MMNE or to affiliate with

may be made at this time followed by the oral acceptance of nominees. An absentee ballot shall be made from these names and mailed via the Newsletter to every member to be returned to the recording secretary prior to the annual business meeting. Ballots of both absentee and those cast at the annual business meeting will be counted by a committee of two members who will report the results of the voting at the meeting.

Section 4.

10% of the active membership, but not less than 10 members, shall form a quorum for the purpose of election or the transaction of business.

All standing committees shall be appointed by the Executive Committee. Standing committees are program, nominating and membership.

Section 2.

The number of members appointed to any standing committee shall be left to the discretion of the Executive Committee.

Section 3.

Ad hoc committees may be created and members appointed by the president as necessary with the simple majority approval of the Executive Committee.

Section 4.

An auditing committee shall examine the books prior to the annual meeting.

Article 8

Amendments

Section 1.

All amendments to, substitutes for, or alternative of the foregoing by-laws shall be proposed in writing and mailed to the membership via the Newsletter, and discussed at the following meeting. Amendments to, substitutes for, or alterations of the by-laws shall be voted on at the annual meeting. Absentee ballots shall be mailed to the active membership via the

other clubs or associations. Any such proposed changes shall be voted on only at the annual meeting. The active membership must be informed by mail of the proposed changes at least 30 days prior to the annual meeting and be supplied with an absentee ballot at that time.

Article 9

Inventory and Disposal of MMNE Property and Assets

Section 1.

At least once annually, an inventory of all club equipment shall be published in the newsletter. This

inventory will contain at least name, item description, any serial number or identifying marks, an estimated value and the name of the member responsible for the equipment.

Section 2.

Members are responsible for care and maintenance of equipment. Any money required to maintain or repair shall be approved by a quorum prior to any expense being incurred.

Section 3.

If the MMNE disbands, all property and assets shall be disbursed by a club-held auction to members only. This auction will be held only to members. At least 20 days advance notice must be given to all members in

good standing. At the time of notice, no new members will be allowed to join.

Section 4.

After disbanding, all monies shall be donated to a non-profit organization or geological publication that a quorum deems worthy of such a gift. Any items or materials still left over after the auction shall be donated to an appropriate educational based institution.

Article 10

Parliamentary Authority

Section 1.

The Rules contained in Roberts Rules of Order, Revised shall govern the MMNE in all cases to which they are applicable and are not inconsistent with these by-laws.

MMNE Secretarial Report for March 20, 2010

President Joe Mulvey brought the March meeting to order at the Trinity Lutheran meeting location. Once again he thanked members for their donations to the May Symposium sales table.

Joe's first order of business was to point out the nature of the club's publicity brochure. He suggested that the club might consider spending approximately one hundred dollars for the printing of some high quality colored copies at a Staples. Pat Barker immediately put the suggestion in the form of a motion, Gene Bearss seconded it and a unanimous vote in favor followed.

Joe said that Jim Ross had finally made contact. Due to circumstances beyond Jim's control he informed Joe that he would be unable to represent "Absolute Clarity" in any way for the May Symposium. A motion was floated to invite Jim as a guest. It was seconded and approved by voice vote.

Symposium presenters Gene Bearss and Tom Mortimer generously expressed the wish to forgo their speaker fees in lieu of no registration fee. This issue was put to a vote and passed unanimously.

Treasurer Tom Mortimer stated that to date he had only collected one Symposium registration fee. It was pointed out however, that the registration form had yet to be circulated via the club newsletter.

When Angie Texeira said that she had discovered that MMNE had not paid its dues to the EFMLS, Joe Mulvey replied that he had just recently been informed of the matter in a letter. He said he had gotten no correspondence prior to this and that he had attempted with some difficulty to contact the EFMLS Treasurer to rectify the matter. In brief, Tom Mortimer said that dues and a ten dollar reinstatement fee had been sent to the EFMLS and that the club is once again a member.

The President informed the members that it was the time of year to present a slate of club officers for the 2010-11 year. There was some confusion as to whether the vote on that slate occurred in April or at the May meeting according to the by-laws. In any event, Joe said he would consult the by-laws and publish an absentee ballot in the April newsletter so it would be available in time. Proposed officers were: Joe Mulvey for President and Newsletter Editor, Gordon Jackson for Vice President, Tom Mortimer as Treasurer, Bob Wilken as Secretary and Bob Janules and Carlos Gristani as the two club Directors.

Both Joe Mulvey and Tom Mortimer pointed out the Symposium door prize, a C-Clamp rock trimmer, was available for all to view.

Joe proudly announced that the Annabergite specimen photo for which he had gotten permission to publish in a recent newsletter article on Laurion, Greece, has been published as a feature photo in Rocks and Minerals magazine.

When queried about Symposium publicity, Joe replied that notices had been sent to Rocks and Minerals and Mindat.org. He also said he would be sending out brochure copies to all local New England clubs.

Respectfully submitted,
Secretary, Bob Wilken

We are happy to announce that the 2010 Micromounters of New England Annual Symposium will be held on Saturday, May 15, 2010 at the Chester Tuttle Post 279 in Auburn, MA. This annual event is the only show in New England held specifically for the micromounter.

In past years we have typically featured one speaker during our one day symposium, but in a departure from what is typical, we have two excellent speakers for 2010. Not surprising to us, both speakers are current members of the club.

The first MMNE 2010 Symposium speaker will be Tom Mortimer from Amherst, New Hampshire discussing *Minerals of New Hampshire*. Tom's systematic collection and discovery of New Hampshire minerals is a worthy endeavor; with roughly 300 specimens reported in the state, Tom is in the process of reviewing material to consummate identity and straighten out historical statements regarding mineral occurrences. A retired electrical engineer and an avid woodworker, Tom has combined these interests with mineral collecting to create an interactive, lighted, traveling mineral display board that connects to his website, MindatNH.org. This website is dedicated to minerals of New Hampshire and features his collection and his photographs. The traveling display will be at the show.

The second speaker of the day will be Gene Bearss from Sanford, Maine with the topic "What's New at the Estes Quarry". One of Gene's "home" localities, this granite pegmatite has an extremely rich layer of interesting mineralogy that any micromounter will find extremely interesting. With roughly 60 species identified at present, the variety makes a field trip to this working quarry consistently interesting. Gene's extensive bibliography includes participating on an article in *Rocks & Minerals* about Estes Quarry with other notable local geologists Thompson, Falster, Simmons, and Nizamoff. Gene's quick wit, dedication to the Micromounters, skill at identifying minerals and hard work with a sledge are all legendary.

The symposium runs from 9am to 4pm. There is a catered luncheon at noon time by Happy's Catering.

A featured door prize will be a c-clamp style mineral splitter purchased from Excalibur Minerals.

Our giveaway tables are legendary. While most of the material will be from New England localities, we never refuse material because of locality,

Sales tables include thousands of mounted specimens as well as tools of the trade, various sizes of perky boxes, literature, posters, framed prints and other mineralogical errata.

Our silent auction is always a big hit and in the past has contained items such as microscopes, suites of specimens from important localities and mineral stamps. We are happy to report that we have received donations for the silent auction this year from Dan Weinrich of Dan Weinrich Minerals, Jim Daly of Sauktown and Larry Rush of ConnRox minerals.



You do not have to be a member of the club to attend our symposium, although there is a discount for members. Cost of the symposium for non-members is \$25. Deadline for attendance with a guaranteed meal is Friday, May 6. Please see our website for a brochure with application at www.micromountersofnewengland.org.

Figure 1 Vivianite & Eosphorite, Estes Quarry, W. Baldwin, Maine, Gene Bearss Specimen and Photo

For further information and directions to the symposium as well as details on joining the club, please visit the Micromounters of New England website at www.micromountersofnewengland.org.

2010 MMNE SYMPOSIUM

REGISTRATION FORM

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

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

Return to: Tom Mortimer

3 Roberts Rd., Amherst, NH 03031

Member Name _____ @ \$20 each _____

Member Name _____ @ \$20 each _____

Non-Member Name _____ @ \$25 each _____

Non-Member Name _____ @ \$25 each _____

Address: _____

E-mail Address: _____

Please return by May 8, 2010, the closing date for ordering a meal.

48 hours notice is required for cancellation with refund.

2010-2011 Micromounters of New England Absentee Ballot

Elections for the 2010-2011 Club Officers will be held during the May Symposium. For current members in good standing unlucky enough to be unable to attend, the opportunity to cast your absentee vote is at hand. Please mail this form or a facsimile thereof to Treasurer Tom Mortimer before May 8.

<u>Seat</u>	<u>Club Nominee from March Mtg</u>	<u>Your Vote for this Position</u>
President	Joe Mulvey	_____
Vice President	Gordon Jackson	_____
Treasurer	Tom Mortimer	_____
Secretary	Bob Wilken	_____
Director	Carlos Gristani	_____
Director	Bob Janules	_____
Newsletter	Joe Mulvey	_____

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.

Our meeting room is at the far end of the low building.

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.



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Micromounters of New England

Annual Symposium

May 15, 2010

The annual gathering of the Micromounters of New England takes place on Saturday, May 15 2010 at the Chester P. Tuttle Post 279 in Auburn, Massachusetts.

All are invited to attend. Cost for members is \$20, non members is \$25.

Show runs from 9am to 4pm and includes a catered luncheon, two full length presentations by Gene bears and Tom Mortimer, extensive giveaways tables, door prize, silent auction and extremely generous sales tables.

Why Join the MMNE?

The Micromounters of New England is the only New England club dedicated to the study of minerals through a microscope. Our club members are among the most respected in the mineralogical society and are often consulted for their local experience. That experience is always shared at club meetings with advanced collectors and amateurs alike. Come visit us! More information is available on our website, www.micromountersofnewengland.org

"there's no better way to keep in touch with what is new and being discovered in New England mineralogy."

www.micromountersofnewengland.org

Joe Mulvey
24 Skyline Drive
Nashua, New Hampshire
03062

Micromounters of New England

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www.micromountersofnewengland.org
E: bassmeister_2000@yahoo.com
P: 603-880-4018
M: 603-809-3038



Palenochite, Palenoch #1 Mine, N. Grafton, NH, Jim Nizniotoff Specimen & Photo

Micromounters of New England
The Micromounters of New England was organized on November 8, 1966 for the purpose of promoting the study of minerals that require a microscope.

Joseph Mulvey
President, 2009-2010

ATTEND THE SYMPOSIUM

Directions to the Symposium

The Chester Tuttle Post 279 is centrally located in Auburn, MA. Adjacent to the Mass Pike, Route 20, Route 9 and Route 290, the post is minutes away from a convenient highway. Please consult our website for detailed directions.

Directions to our Monthly Meetings

Please check website for schedule

Trinity Lutheran Church
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.

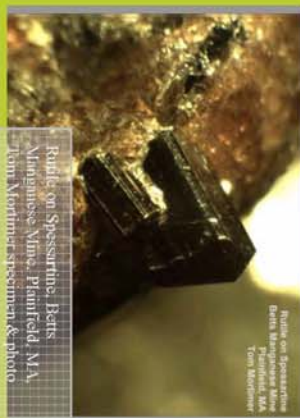
Entrance for Trinity Lutheran Church on left. Proceed up rather long driveway to parking area.

Our meeting room is at the far end of the low building.

Symposium Events

- Presentation by Gene Bearss
- Presentation by Tom Mortimer
- Humongous Give-away tables
- Nifty door prize C-Clamp mineral trimmer
- Large Sales Tables, Silent Auction Table
- Full Course luncheon

Symposium runs from 9am to 4pm



Join the Club !

Attend the Symposium!

Name _____
Address _____ City, State, Zip: _____
I will be: Joining the Club _____ @ \$12 ind. Or _____ \$16 Family
Newletters delivered by USPS _____ or to this email address: _____
Symposium Member name: _____ @ \$20
Attending the Symposium as a non-member: _____
Non-Member Name: _____ @ \$25
Non-Member Name: _____ @ \$25
Non-Member Name: _____ @ \$25
Please remit payment to Treasurer Tom Mortimer, 3 Roberts Rd., Amherst, NH 03031
Symposium Deadline for a meal is Friday, May 7, 2010
Family membership includes two adults residing at the same address and all children at that address under the age of 18. Only one copy of the Newsletter per family membership. **Newletter:** The Newsletter is available as hard copy sent through the mail, or via email, which may have color photographs included. Please indicate choice of format.



Phenacite, Mt. Marie Quarry, Paris, ME,
Ron LaPage Specimen, Joe Mader photo

2010 SYMPOSIUM

WHAT'S NEW AT ESTES QUARRY BY Gene Bearss

Since his last presentation on Estes Quarry new occurrences of minerals have been discovered. As one of his regular collection localities, Gene knows the geology and mineralogy better than anyone.

This one hour slide show including digital photos of many specimens from Gene's private collection will detail the realm of minerals available for collection from this revered pegmatite quarry.

MINERALS OF NEW HAMPSHIRE by Tom Mortimer

Tom Mortimer has been highly respected for having one of the eminent collections of New Hampshire minerals. He has taken his collection to the next level with the publication of MindatNH.org, a mineral website dedicated to the display of his collection.

Tom's presentation will also include his fabulous display unit, a three and a half foot wide computer controlled mineral collection that interacts with his database of minerals!

MEMBERSHIP FORM, NEW AND RENEWAL IT IS THAT TIME!!!!

Membership in the MMNE runs from January 1st to December 31st. Dues are payable on or before January 1st for the upcoming year. Failure to renew on time will result in cancellation of membership including the subscription to the Newsletter. Please fill out this form and return it with your payment.

Name: _____

Street/PO Box Address: _____

City/State/Zip : _____

Telephone: _____

E-mail address: _____

___ **Hard copy via USPS** or ___ **via email to above address**

Membership type: Individual \$ 12.00 Family \$ 16.00

Family membership includes two adults residing at the same address and all children at that address under the age of 18. Only one copy of the Newsletter per family membership.

Newsletter: The Newsletter is available as hard copy sent through the mail, or via email, which may have color photographs included. Please indicate choice of format. The Newsletter is published in January, February, March, April, May, Summer Issue (June), September, October and November (no December issue), and is send out approximately two weeks prior to the next scheduled meeting.

Please remit payment to Treasurer Tom Mortimer, 3 Roberts Rd., Amherst, NH 03031

Joe Mulvey, Newsletter Editor
Micromounters of New England
24 Skyline Drive
Nashua, NH 03062

TO: