

# 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. 285

January, 2008

## **OFFICERS 2007-2008**

### **President**

Michael Swanson  
(413) 773-3867  
msmicros@crocker.com

### **Vice-President**

Joseph Mulvey  
(603) 880-4018  
bassmeister\_2000@yahoo.com

### **Treasurer**

Anna Wilken  
(603) 536-2013  
microxl@mfire.com

### **Secretary**

Bob Wilken  
(603) 536-2013  
microxl@mfire.com

### **Directors**

Gene Bearss  
(207) 324-3610

Gordon Jackson  
(603) 783-4493  
nhrockman@msn.com

## **Next Meeting:**

Saturday, January 19, 2008, Trinity Lutheran Church, Chelmsford, MA. Doors open 9 am. Check newsletter last page for map and directions.

## **2008 Dues are Due**

An e-mail note was received from our club treasurer, Anna Wilken:

"Yes, it is time again to send in your \$ 12 for individual and \$ 15 for family membership to the treasurer," (address on page 2).

## **2008 winter/spring MMNE meetings scheduled**

Confirmation has been received from the Trinity Lutheran Church in Chelmsford, MA for meeting dates in early 2008. These dates are: January 19, February 16, March 15, and April 19, (all Saturdays). The church has allowed us to extend our meeting end time from 1 pm to 2 pm, (for the same fee charged during 2007).

## **Search for May meeting speaker**

MMNE president Mike Swanson reports that we have still not yet secured a speaker for our May meeting. Member help on this critical task is urgently needed.

## **Newsletter Editor**

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

## **Current Meeting**

Saturday, January 19<sup>th</sup>  
Trinity Lutheran Church  
Chelmsford, MA  
Doors open at 9 am

Map and driving  
directions are on page 7

## **Next Meeting**

Saturday February 16<sup>th</sup>  
Trinity Lutheran Church  
Chelmsford, MA

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

Michael Swanson  
(413) 773-3867  
msmicros@crocker.com

## **MMNE SECRETARIAL REPORT FOR NOVEMBER 17, 2007**

NOTE: The following minutes are based on a recording of the meeting posted in the "Members" area of the MMNE website. The Secretary was not able to be present and apologizes in advance for problems inherent in the transcription process. It was not always possible to determine who was speaking. Opening and closing times were unavailable as were number of members attending.

Mike Swanson brought the meeting to order making reference to an outline of the issues he wished to discuss. The President first questioned how many members needed to be present for an official meeting according to the by-laws. Those present agreed that ten were sufficient. Mike reflected upon a previous discussion at the September meeting in which members were talking about ways to increase club membership. At the time, the focus was upon ways to attract youngsters and those with no prior mineralogical background. Mike, under reflection, concluded this was not a realistic way to enlarge membership and suggested that it would be much more successful if the club focused on members already in the mineral community, namely those present in other clubs that ten were sufficient. Mike reflected upon a previous discussion at the September meeting in which members were talking about ways to

(continued, page 3)

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. 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 \$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 2007-2008

President: Michael Swanson, 646 Greenfield Rd., Leyden, MA 01301-9400	(413) 773-3867	msmicros@crocker.com
Vice President: Joseph Mulvey 24 Skyline Drive Nashua, NH 03062-3516	(603) 880-4018	bassmeister_2000@yahoo.com
Treasurer: Anna Wilken, 79 Meadow Lane, Campton, NH 03223	(603)536-2013	microxl@mfire.net
Secretary: Robert Wilken, 79 Meadow Lane, Campton, NH 03223	(603)536-2013	microxl@mfire.net
<b>Directors:</b>		
(2006-2008) Gene Bearss, 33 North Ave., Sanford, ME 04073-2943	(207) 324-3610	
(2006-2007) Gordon Jackson, PO Box 600, Canterbury, NH 03224-0600	(603) 783-4493	nhrockman@msn.com

Editor: Tom Mortimer, 3 Roberts Rd., Amherst, NH 03031

(603) 673-4039

tjmort@comcast.net

Webmaster: Joseph Mulvey 24 Skyline Drive Nashua, NH 03062-3516

(603) 880-4018

bassmeister\_2000@yahoo.com

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

## **2008 CALENDAR OF UPCOMING EVENTS**

### January 2008

19 – MMNE meeting, Trinity Lutheran Church, doors open at 9 am (Map and directions on page 5)

### February 2008

14-17 – Tucson Mineral Show – Main Show Thu/Fri/Sat 14-17, Sun 10-5 <http://www.tgms.org>

16 – MMNE meeting, Trinity Lutheran Church, doors open at 9 am

### March 2008

15 – MMNE meeting, Trinity Lutheran Church, doors open at 9 am

### April 2008

19– MMNE meeting, Trinity Lutheran Church, doors open at 9 am

## **TABLE OF CONTENTS**

Page 1 – January 2008 MMNE announcements. November 2007 MMNE meeting secretary report

Page 2 – Masthead - Calendar of Upcoming Events

Page 3 – Secretary's report, continued

Page 4 – Meeting and specimen photo gallery

Page 5 - The Micro Collectors Workshop

Page 7 – Map and directions to Billerica, MA Public Library

**November 2007 Secretary's report, continued from page 1**

increase club membership. At the time, the focus was upon ways to attract youngsters and those with no prior mineralogical background. Mike, under reflection, concluded this was not a realistic way to enlarge membership and suggested that it would be much more successful if the club focused on members already in the mineral community, namely those present in other clubs that could be won over to the merits of micromineralogy. He suggested that many members of MMNE were already members of other clubs and that they could serve as liaison to give micromineral presentations and to encourage awareness of MMNE by publishing its meeting and event schedule in the respective newsletters. The President said we must make ourselves more "visible" to other clubs.

Other people present added their input. Visitor and Nashua Club bulletin editor, Don Swenson (sp?), talked of the need to establish "a system" of getting information about MMNE to other club members. Carlos Gristani essentially agreed with Mike's observations and reprised them. MMNE Webmaster Joe Mulvey indicated that information such as announcements and invitations could quickly and easily be forwarded to other club webmasters. He also said it could be profitable to have our website link available via other club web pages. On a pessimistic note, Gene Bearss felt that members in the other non-micro clubs would not be interested in getting involved because there is "no money" in micros. Dana Jewell suggested that local cable channels are always looking for programs and that the club could put together a video presentation of our pastime. Mike said that we should set up a table at the various club shows for the purpose of mineral identification as another way to make the hobby and MMNE visible. Editor Tom Mortimer said he would e-mail a copy of the MMNE bulletin to the clubs in which our members also participate.

Discussion turned to the MMNE May Meeting. Questions surfaced about the event's date and whether the hall was reserved. Gene Bearss said Anna Wilken (not present here) would be able to answer these questions. Mike Swanson felt that there was a definite need for a coordinator for the event and that the Secretary (yours truly, Bob Wilken) would be the logical person. Gene disagreed saying that because Anna handled the money it would be a better choice. He also said (humorously) "Bob tries to slough it off on Anna anyway." Regarding publicity, there was discussion of lead-time required by the major mineral journals. The President said the club could pay for a block advertisement in R & M. Gene Bearss said from recent past experience with the journals the publicity did not yield any results. Others felt that fliers should be distributed to other clubs. Several names were floated as possible speakers for the event and certain possibilities would be investigated prior to the January meeting.

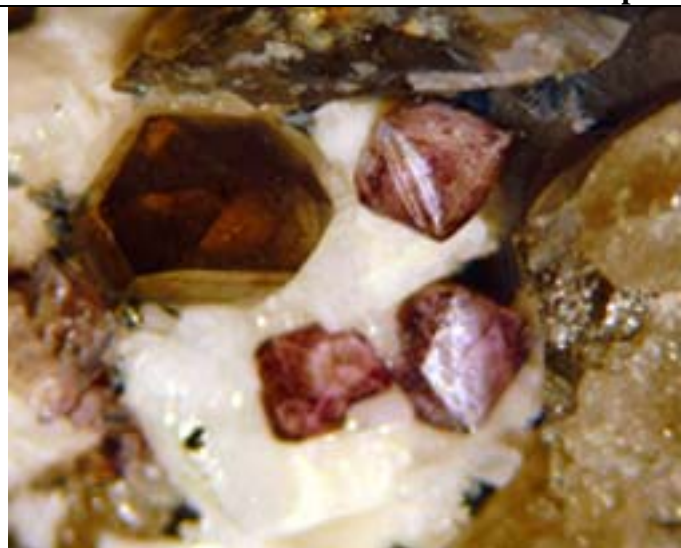
Concern turned to the need for setting meeting agendas and a yearly program chairperson. This thread was tied to the discussion at the September meeting regarding the purchase of a digital projector to encourage club member involvement in making presentations.

Webmaster Joe Mulvey reported on the web statistics (the number of website "hits") since 2005 as well as for the current year. This led to a brief exchange about ways to make the website material even more open to non-members.

The President made a final suggestion that club directors should serve as the nominating committee for club officers. It was also noted that the club by-laws were to be in the members section of the club website.

The meeting adjourned after one hour and eighteen minutes.

Respectfully submitted, Bob Wilken, Secretary

**Pictures from November 2007 meeting courtesy of Merrie Porro****Two Micromineral photos provided by Gene Bearss****Fluorite Government Pit, Albany, NH****Bastnäsite (Ce) Government Pit, Albany, NH**



## The Micro Collector's Workshop

### A LED Microscope Illuminator

Tom Mortimer

A last column reviewed my construction of a SOLUX incandescent lamp based microscope illuminator. Although this lamp continues to be my preferred light source, it does get very hot and it does lack the positioning flexibility of a commercial fiber optic illuminator.

Recently, very bright white LED, (Light Emitting Diode), light sources have become available. Flashlights and Christmas tree lights using white LEDs are now widely marketed. These light sources typically generate a Watt, or less, of heat. With this obvious advantage, I decided to give a try at making a dual illuminator using bright white LEDs. Searching the web, I found, what appeared to be, a suitable LED lamp manufactured under the trade name LUXON. The part number on my LED lamp is 3805LXHLNWE8, (Figure 1) I think I paid about \$14.- each for them...(search as I may, I cannot now find these... perhaps they are no longer made, but there are hundreds of other similar ones to chose from. Look for ones with extreme high brightness and a built in rear reflector.)

A critical feature of the fiber optic illuminator that I wanted to duplicate was the flexible metal tubing to position the light source. Searching the web, I was unable, (then), to locate a vendor of metal flexible tubing for a price and minimum length, (about 3 feet), that I wanted to buy. However, fortune shown upon me. On a trip to the town dump, (a.k.a. "transfer station"), I spotted the remains of an "art deco" five bulb floor lamp that had just the flexible metal pipe I was looking for. I retrieved it from the scrap metal "mountain" and brought it home. One of the original five lamp assemblies that was unused in my project is shown in Figure 2. The flexible pipes were only 10 inches long, but with threaded ends, two lengths were easily fastened together with an extra deep nut to make a twenty inch length.



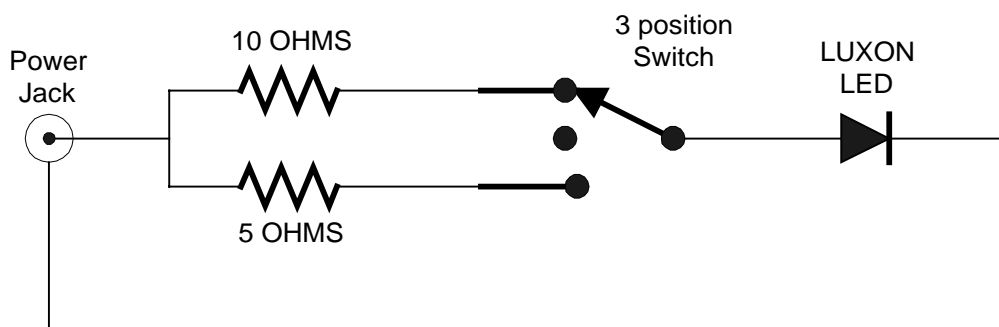
**Figure 1.** LUXON LED



**Figure 2.** Salvaged "art deco" lamp with flex pipe.

The intensity of a Light Emitting Diode is controlled by the electrical current through it. More current equals more light, (as long as one does not exceed the maximum rated current for the device). LEDs also require a direct current power source, like the ubiquitous black, plug-in, blocks that power most electronic gadgets these days. I selected a 5 Volt, 1 Amp power module from a collection I had saved, (as I said in the last issue, "I save way too much stuff"). These power modules are also available at Radio Shack.

I decided to go with two different light intensities, (i.e. HIGH and LOW), rather than a continuously variable intensity, (electrically simpler to construct). A note here: I am happy to assist readers with the details of the electrical connections. Those wishing to ignore these details should skip to the next paragraph. My LUXON LEDs have a forward voltage of about 3.2 volts at the recommended 400 milliamp operating current. This determines my HIGH brightness LED series resistor as:  $(5 - 3.2)\text{Volts}/0.4\text{ Amps} = 4.5\text{ ohms}$ , (I used a 5 ohm, 1 watt, resistor). A second series resistor, for LOW brightness is selected by a double throw toggle switch, I used 10 ohms here. A schematic for my lamp is shown in Figure 3, (one lamp only shown).



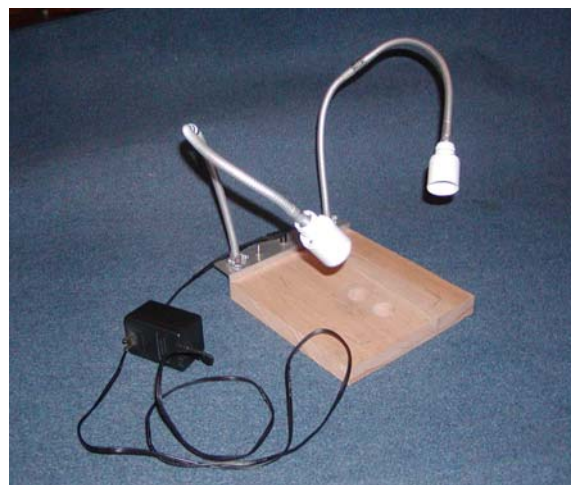
**Figure 3.** Wiring schematic, one LED side only is shown

Small “shades” for my LEDs were made from cut off eye dropper bottles. A foam grommet, (actually a small slice of hose), holds the shade in place in the end of the flexible pipe, Figure 4. A pair of 4:40 screws and nuts attach the LED module to the eyedropper shade.

The resistors, toggle switches, and power jack were assembled on a length of 1 ½ inch aluminum angle stock. Electricians outlet box wire clamp nuts were used to attach the flexible pipes to the angle stock. Finally the completed assembly was screwed to a block of 1 ¼ inch thick oak, (a left over piece of a stair tread). The finished illuminator is shown in Figure 5. I find this illuminator particularly useful in mineral photography, where multiple light sources, accurately positioned, are helpful. I do find that the light color of my LEDs is a bit on the “blue” side.



**Figure 4.** Lamp attachment to flex pipe with shade



**Figure 5.** Completed LED Illuminator

## 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.

