

CMLMS  
P.O. Box 24202  
Lansing, Michigan 48909

**TIME VALUE  
FIRST CLASS**

## **Rockhound News—December, 2017**

Official publication of the  
**Central Michigan Lapidary and  
Mineral Society**  
Affiliated with MWF and AFMS

**Christmas  
Party!**  
**Membership  
meetings start at 7  
p.m.**



# Rockhound News

This bulletin is the official publication of the Central Michigan Lapidary and Mineral Society of greater Lansing, Michigan. It is published each month except July and August.

The Central Michigan Lapidary and Mineral Society is a non-profit organization, meeting to promote interest and increased knowledge in the fields of mineralogy, geology, paleontology and the lapidary arts. It was organized in May 1957 and celebrated its 50th Anniversary in 2007.

**Meeting place: Masonic Center, 2175 Hamilton Street, Okemos, MI**

**Regular meeting date: Third Thursday, except July and August**

**Meeting time: 7:30 p.m., doors are open at 7:00 p.m.**

**Annual Dues: Adults \$10.00; Families \$15.00; Students under 18 \$2.00**

**Board meetings: First Thursday, except July and August; 7:00 p.m., Okemos Library**

## OFFICERS 2017

President	Sue Casler	517-582-2466 casler5copper@gmail.com
Vice-President	Nate Krupp	517-626-1136 nathan.krupp1@gmail.com
Recording Secretary	Dave Berquist	517-643-2301 3waverly@gmail.com
Corresponding Secretary	Theresa Hubbard	517-203-9620 thrshubbard@yahoo.com
Treasurer	Elaine Beane	517-272-9661 gebeane@comcast.net
1 Year Director	Lyle Laylin	517-488-7908 lyle18@gmail.com
2 Year Director	Gaylord Brooks	517-394-7211 rockinme60@gmail.com
3 Year Director	Chuck Taricska	517-331-1737 chuck_taricska@yahoo.com
Roster Secretary	Elaine Beane ( <i>pro tem</i> )	
Liaison Officer	VACANT	
Past President	Elaine Angstman	517-282-9775 eangstman@hotmail.com

## COMMITTEE CHAIRS 2016

Membership	Dave Berquist	517-643-2301 3waverly@gmail.com
Field Trip	Dan Sine	517-763-2954 daniel.sine@opm.gov
Publications	Roni Sionakides	517-482-5986 rsionakide@yahoo.com
Display	VACANT	
Education	Theresa Hubbard	517-203-9620 thrshubbard@yahoo.com
Outreach	Mary Gowans	517-351-6136 gowans@msu.edu
Library	VACANT	
Finance	Milt Gere	517-669-8116 miltgere@aol.com
Show	Roger Laylin ( <i>pro tem</i> )	517-349-3249 l.r.laylin@gmail.com
Web Master	Lyle Laylin	www.michrocks.org

## Permanent Mailing Address

CMLMS

P.O. Box 24202

Lansing, Michigan 48909

[www.michrocks.org](http://www.michrocks.org)

## Affiliated With

Midwest Federation of Mineralogical and Geological Societies

<http://www.amfed.org/mwf/>

American Federation of Mineralogical Societies

<http://www.amfed.org>

# ROCKHOUND NEWS

**NEXT MEETING: Thursday, December 21, 2017**  
**PROGRAM: Christmas Party and Rocky Gift Exchange,**  
**installation of new officers**  
**REFRESHMENTS: Everyone bring Christmas treats!**

**Location and Time:** The CMLMS membership meeting will be held on December 21, 2017, at 7:00 p.m., at the **Masonic Center, 2175 Hamilton Street, beautiful downtown Okemos.**

**NOTE: Membership meeting time change from 7:30 to 7 pm with doors open by 6:30 pm.**

## **Calendar for winter 2017/2018**

December 21, 2017 - Membership meeting, 7:00 p.m., Masonic Center

January 4, 2018 - Board meeting, 7:00 p.m., Okemos Library

January 18, 2018 - Membership meeting, 7:00 p.m., Masonic Center

February 1, 2018 - Board meeting, 7:00 p.m., Okemos Library

February 15, 2018 - Membership meeting, 7:00 p.m., Masonic Center

[Editor's note: the deadline for the newsletter is **Monday, 8 a.m.** after the board meeting.]

## **UPCOMING PROGRAMS**

December 18 - Christmas party and Rocky Gift Exchange, installation of officers, mini silent auction. Bring small bills to make change. Mineral of the month - zircon.

January 18 - To be announced. Mini silent auction.

February 15 - To be announced. Mini silent auction.

## **Special Instructions for the Rocky Gift Exchange (Please Read This!!)**

If you want to **get a gift**, you must **bring a gift!** Gifts should be rock related. Gifts may be a) rock or mineral specimen, fossil, b) books, magazines, or articles about rocks, minerals or gems, c) small tools/materials related to rock collecting or faceting, d) toys, clothing, or anything else related to our mineral interests. Please wrap the gift you bring with you.

## **VACANCIES ON THE BOARD**

The following positions need staffing. Please consider volunteering for your society and helping out. It's a nice way to get to know members.

Display Chair - sets up the memorial displays at the club show and takes to other rock shows.

Library Chair - maintains the library, checks books out and in.

Liaison Officer.

# Message from the Roster Secretary

## Dues are now being collected for 2018

It's that time again when you are asked to renew your membership in the Central Michigan Lapidary and Mineral Society. (Membership runs from January through December each year.) Membership dues for 2018 are being collected through the end of December, at which time, if unpaid, you will be removed from the list for the newsletter. If you have not paid, please remember you will no longer have privileges for field trips. **YOU MUST BE A SOCIETY MEMBER TO GO WITH THE SOCIETY.** Please keep in mind that December 31 of each year is the actual date your dues should be paid to the society so the board can plan accordingly for publishing an annual directory and insurance for each member for field trips. **DO IT TODAY BEFORE YOU FORGET!!!!**

### CLUB NEWS

**Outreach Committee:** Always in need of volunteers to help with school science fairs, talks and presentations at schools and other organizations, and educational opportunities. Contact committee chair Mary Gowans to lend a hand. [gowans@msu.edu](mailto:gowans@msu.edu) or 517-351-6136.

#### A message from Mary Gowans, Outreach Chair

November 15 was a STEM Science Night at Pinecrest Elementary School and attended by Roger Laylin, Theresa Hubbard, Bonnie Echardt and Bill McCracken. Thanks to all who participated that night.

**Library:** Check out the new books in the library boxes. Always something in there, old or new, for all interests.

#### Field Trips!

None scheduled at this time. See Dan Sine to sign up and for more information. Cell phone 517-316-5713 or [daniel.sine@opm.gov](mailto:daniel.sine@opm.gov). Dan has an email list of all who want to go on the field trips. Please contact him if interested in getting emails as field trips are set up.

### UPCOMING SHOWS

None 'til next year!!!

### CMLMS MINUTES

#### CMLMS, Membership Meeting, November 17, 2017

**Call to Order:** President Sue Casler called the meeting to order at 7:17 p.m.

**Welcome and Introduction of Guest/Visitors:** Jessica Clark, Bob Britton, and Steven Smith, all new members, and Doug and Peg Demond, guests.

**President's announcements:** Sue Casler said Alan Hukill has resigned his position as Liaison Officer. His address was used as the society's mailing address. That has been changed to Post Office Box 24202, Lansing, Michigan 48909.

**Minutes of the Last Meeting:** The minutes of the November Board meeting was in the newsletter. Roni Sionakides is acting recording secretary.

**Treasurer's Report:** Elaine Beane presented the report on the show income and expenses. She will become acting Roster Secretary for 2018. Dues can be paid to her or Ernie Aughenbaugh.

**Announcements:**

1. Roger Laylin said the show was a financial success. Over 1400 people came through the door. Question: do we hold a show next year? Dates will be October 19, 20 and 21. Fairground rental is up by \$250 to \$4,500. Theresa Hubbard made a motion that **the Central Michigan Lapidary and Mineral Society hold a show in 2018**. Lyle Laylin seconded. Motion carried. Wrap up meeting will be held Monday, November 20, 7 p.m., at home of Roger Laylin.

2. Science Night at Pinecrest was represented by Roger Laylin, Bonnie Echardt, Bill McCracken and Theresa Hubbard. Many children and their families attended.

3. Ernie Augenbaugh reminded everyone that dues are due and being collected.

**Elections:** President Sue Casler, Vice-president Nate Krupp, Recording Secretary Dave Berquist, Corresponding Secretary Theresa Hubbard, Treasurer Elaine Beane, 3-year Director Lyle Laylin or Christi Mansfield, 2- year Director Chuck Taricska, 1-year Director Gaylord Brooks. Lee Laylin moved **to accept the slate as proposed**, Lyle Laylin seconded, motion carried.

**Door Prizes:** Dan Sine.

Mineral of the Month: Theresa Hubbard presented on salt. Dave Berquist added comments. Also Diane Barlawski commented on mastodons being found near salt mines.

**Adjournment:** Lee Laylin moved to adjourn the meeting. The motion received a second by Diane Barlawski and the meeting was adjourned at 8:00 p.m.

**Program:** Lyle Laylin showed slides of his trip to North and South Dakota on his way to view the total eclipse.

Respectfully Submitted, Roni Sionakides, Acting Recording Secretary

### **CMLMS Board Meeting, December 7, 2017**

**Board Members Present:** Ernie Augenbaugh, Elaine Beane, Dave Berquist, Sue Casler, Milt Gere, Mary Gowans, Theresa Hubbard, Nate Krupp, Lyle Laylin, Roger Laylin, Dan Sine, Chuck Taricska.

**Board Members Absent:** Gaylord Brooks, Roni Sionakides.

**Members Present:** None.

**President:** Sue Casler called the meeting to order at 7:15 p.m. 1. Installation of Officers will be at the membership meeting on December 21. 2. There will be a silent auction, so bring small bills. 3. There will be a gift exchange. 4. Topaz is the mineral for December. 5. All are encouraged to bring treats. 6. Silent auctions will be in January and February also.

**Vice-President:** Nate Krupp suggested that at meetings children be asked what they want as demonstrations and talks. Others suggested having presentations of coral, Petoskey stones and non-Petroskey stones, and geology of National Parks.

**Treasurer:** Elaine Beane presented the 2017 Treasurer's Report. She said the "not reported" items will be resolved as information becomes available.

**Recording Secretary:** Dave Berquist recorded the Minutes.

**Corresponding Secretary:** Theresa Hubbard had no report. What kind of remembrance to have for the passing of Robert Mosher was discussed. Ms. Hubbard will send a memorial form to get permission from the estate.

**Directors:** Director 1 Lyle Laylin had no report. Director 2 Gaylord Brooks was absent, no report. Director 3 Chuck Taricska had no report. He asked for volunteers who would present at Scouting events. Several Board members indicated their willingness to volunteer.

**Roster Secretary:** Ernie Augenbaugh said the transition to Ms. Beane is in progress. Ms. Beane, nominee for Roster Secretary has the oldest roster book. Mr. Laylin transferred the current roster data to Mr. Augenbaugh.

**Liaison Officer:** President Casler will contact the former Liasion Officer about preserving the records. He does forward mail to Ms. Beane.

**Past President:** Elaine Angstman, absent.

**Membership:** Dave Berquist had no reports of new applications.

**Field Trips:** Dan Sine said overnight trips could be researched to the Herkimer Mine in New York, the quarries at Alpena and Rockport, Hungry Hollow in Canada, and Flint Ridge in Ohio. Note from Recording Secretary: Mr. Berquist visited Flint Ridge in September, and Hocking Hills State Park. He has photos and videos on a cell phone, to loan. Let him know if interested.

**Publications:** Roni Sionakides was absent, no report. Info for the Newsletter is due on December 11, no later than 8 am.

**Education:** Theresa Hubbard had no report.

**Community Outreach:** Mary Gowans had no report. She expects to get opportunities for the Society at schools in the Spring.

**Library:** Vacant.

**Display:** Vacant.

**Finance:** Milt Gere presented the proposed Budget for 2018. Ms. Hubbard suggested the \$100 for Corresponding Secretary be reduced to \$50. After adjustments agreed to by the Board, Ms. Beane moved **for approval of the Budget stating a Total of \$23,800.** Seconded by Lyle Laylin. Approved by the Board. Mr. Gere will write the motion for the Budget approved by the Board and the schedule of approved amounts.

**Web Master:** Lyle Laylin said work was continuing on a simple-to-use web site for the Web Master.

**Show:** 1.a. Roger Laylin explained the situation of table rental for the Show. The Society's payment included money to transport tables from Brighton because of a shortage at the vendor's. 1.b. Ways to reduce crowding and encourage students to explore the entire show on Friday were discussed. These included moving the educational displays from the entrance to the southwest corner of the pavilion, having checklists for minors to look for a variety of displays, discontinuing the spinning wheel, and moving the fossil table. 1.c. The types of colorful and informative post cards used by neighboring clubs was discussed. Interest in developing the idea for the Society was shown.

2. Roger Laylin noted from the Livingston club newsletter their December activities were silent auctions, potluck, and gift exchange.

3. David Westjohn has a project to build a path at the VFW Home. He contacted Roger about getting boulders representing regions of Michigan. The Board is considering supporting the project.

**Old Business:** none.

**New Business:** Having business cards for members to give to persons interested in stones, who are met. Dave Berquist provided a draft. Many suggestions were offered. He will compile them for the Board's consideration. Ideas from members are welcome. Contact Dave.

**Adjournment:** Elaine Beane made a **motion to adjourn the meeting.** The motion received a second by Lyle Laylin and the meeting was adjourned at 8:45 pm.

Respectfully Submitted, Dave Berquist, Recording Secretary

## 2017 Show Wrap Up

Attendees - Roger, Lee, Sue & Milt.

Well I guess most everyone was satisfied with the results of the Show. To the best of my figures income subject to final expense numbers is \$6,650.00.

Sue suggested extra rest chairs near the Silent Auction for those people observing.

Lee suggested that her row of tables be moved to the South East corner running diagonally

from the big door. This would require the children to have to moved through all the educational displays before lining up to buy her offerings and mineral kits. Her prior space to be used for additional educational displays.

We also decided that because of the long lines at the Spinning Wheel the children were wasting too much of their time on the floor waiting to gamble.

Therefore no Spinning Wheel on Kids morning, have it set up to be seen but only in operation during the Show. We realize that over one-third of the income from the wheel comes from Friday morning. It should be an activity not a money maker.

Having sold all of the mineral kits - 400+ - we have our work assignment, first to restock the specimens to be used as well as preparing the egg cartons. Several work days other than Club meetings will be necessary.

Exit gift contents are always a question. This time we will use several different items, small Petoskey stones, kona dolomite, some left over sharks teeth, and something else if needed to meet the necessary number. Archy will save us some Petoskey cuttings.

If anyone has something to offer bring to next Club meeting.

Roger Laylin

## MINERAL OF THE MONTH

December's mineral is zircon, one of the minerals for December. Please feel free to bring examples for show and education.

by Theresa Hubbard, Resources: *Wikipedia* and *Minerals.net*

Zircon is the traditional birthstone for December. It is a mineral belonging to the group of nesosilicates. Its chemical name is zirconium silicate and its corresponding chemical formula is  $ZrSiO_4$ . The crystal structure of zircon is tetragonal crystal system. The natural color of zircon varies between colorless, yellow-golden, red, brown, blue, and green. The name derives from the Persian zargun meaning gold-hued. This word is corrupted into "jargoon," a term applied to light-colored zircons. The English word "zircon" is derived from "Zirkon," which is the German adaptation of this word.

Zircon is ubiquitous in the crust of Earth. It occurs as a common accessory mineral in igneous rocks (as primary crystallization products), in metamorphic rocks and as detrital grains in sedimentary rocks. Large zircon crystals are rare. Their average size in granite rocks is about 0.1–0.3 mm, but they can also grow to sizes of several centimeters, especially in mafic pegmatites and carbonatites. Zircon is also very resistant to heat and corrosion.

Zircon is a common accessory to trace mineral constituent of most granite and felsic igneous rocks. Due to its hardness, durability and chemical inertness, zircon persists in sedimentary deposits and is a common constituent of most sands. Zircon is rare within mafic rocks and very rare within ultramafic rocks aside from a group of ultrapotassic intrusive rocks such as kimberlites, carbonatites, and lamprophyre, where zircon can occasionally be found as a trace mineral owing to the unusual magma genesis of these rocks.

Zircon forms economic concentrations within heavy mineral sands ore deposits, within certain pegmatites, and within some rare alkaline volcanic rocks, for example the Toongi Trachyte, Dubbo, New South Wales, Australia in association with the zirconium-hafnium minerals eudialyte and armstrongite.

Australia leads the world in zircon mining, producing 37% of the world total and accounting for 40% of world EDR (economic demonstrated resources) for the mineral. South Africa is Africa's main producer, with 30% of world production, second after Australia as well as Cambodia, Burma (Myanmar), Sri Lanka (Ceylon), Australia, Tanzania, Mozambique, Madagascar, Nigeria, Pakistan, and Afghanistan.

Zircon is an historical gemstone used for thousands of years. It is sometimes looked upon as a cheap Diamond simulant, but in actuality it can be a valuable gem. Its color diversity is caused by traces of certain impurities, some of which are radioactive. Zircon gemstones containing radioactive element traces undergo a process called metamiction, in which their inner crystal structure becomes destroyed. These radioactive forms of zircon must be heated to stabilize them for use as gems. In fact, many of the gem forms of zircon (even those that are not radioactive) are heat treated to enhance color and increase transparency. The

radioactivity in zircon gemstones is very minimal and is generally believed to be safe, without posing any health hazards. Zircon comes closer to resembling diamond than any other natural gem. Its strong luster and intense fire gives it a real sparkle that is comparable to diamond. However, its popularity is somewhat diminished by the fact that it is often perceived as an inexpensive diamond imitation. Colorless zircon is easily distinguished from diamond by its strong double refraction and lower hardness.

The brilliant luster and fire of zircon, combined with its good hardness and range of colors, make it a most desirable gem. However, it does have some undesirable traits. An interesting and strange habit exhibited in only few zircons is that their color darkens and their luster dulls upon prolonged exposure to sunlight. This effect can be reversed by giving the stones a second heat treatment. Zircon is also prone to cracking and chipping if banged too hard. For this reason, care must also be taken when faceting zircon gemstones. Another important factor when faceting zircon is to minimize the appearance of its strong double refraction by cutting along proper angles. Zircons that are not faceted properly can appear blurry, due to strong double refraction.

Zircon is sometimes confused with Cubic Zirconia. Cubic Zirconia, a synthetic, inexpensive diamond simulant, resembles colorless zircon and has a similar sounding name. However, the two are entirely separate substances, and have no connection with each other except for the fact that they both contain the element zirconium in their chemical structure.

Uses: Zircon of all colors are used as gems, but blue, golden-brown, and white are the colors most often used. Blue zircon, the most popular color, has a lively pastel blue, and occasionally has a very desirable striking bright blue color. Colorless zircon is usually cut with a brilliant cut to bring out its fire to its fullest capability. It is often used as a cheaper, yet natural alternative to diamond. The other color forms (yellow, green, pink, and purple) are less often seen in jewelry.

Zircon is mainly consumed as an opacifier, and has been known to be used in the decorative ceramics industry. It is also the principal precursor not only to metallic zirconium, although this application is small, but also to all compounds of zirconium including zirconium dioxide ( $ZrO_2$ ), one of the most refractory materials known.

Other applications include use in refractories and foundry casting and a growing array of specialty applications as zirconia and zirconium chemicals, including in nuclear fuel rods, catalytic fuel converters and in water and air purification systems. Zircon is one of the key minerals used by geologists for geochronology. Zircon is a part of the ZTR index to classify highly-weathered sediments.

#### Varieties

Jacinth - Yellow, orange, brown, or red variety of zircon. Also synonymous with Hyacinth. Though the terms Jacinth and Hyacinth are no longer used in the gem trade, they are historically important names going back to biblical times. In ancient times, before there were mineralogical classifications for gemstones, the term Hyacinth may also have referred to an orange or brownish topaz.

Jargon - Colorless, pale gray, or pale yellow variety of zircon.

Matura Diamond - Trade name for colorless zircon.

Starlite - Blue gem variety of zircon. The color of Starlite is rarely natural, and is almost always heat treated.

Zircon gemstones are often heat treated to produce good coloring and increase transparency. Heating semi-transparent, grayish-brown or reddish-brown zircon from most localities in an oxygen-free environment will give it a blue color. If these blue stones are then re-heated in air, their color turns golden-brown. Heat treatment of certain zircon gemstones also produces colorless gems. Almost all blue and colorless forms of zircon are heat treated.

Prices for blue zircons average around \$75 per carat for 5 to 6 carat gems. The better colors with fancy shapes can wholesale from \$125 to \$150 per carat. Top gem blues can reach \$200 per carat. Stones over 10 carats range from \$150 to \$175 per carat. (Jun 1, 2001).

**MERRY CHRISTMAS AND HAPPY NEW YEAR!**