

ROCK CHATTER

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Club of Macomb, Illinois
Member of AFMS, MWF, and GESCI

Objective: To promote interest and education in
Earth Sciences and all related fields.
Volume 23, Bulletin 1, January 2019

No January Meeting This Year

ALLUVIUM - January 2019

Another year and fine club Christmas Party are now behind us and we will begin 2019 after a month's break.

During business last month we discussed and voted on a motion to hold off on meeting in January after being snowed/colded (yes, I know spell-checker) out the last two years. We decided to wait until meeting date in February, and hopefully get back on schedule then-though one of those were cancelled as well.

We will next have a scheduled meeting on Monday, February 4th at 6pm at Trinity Lutheran Church in Macomb. This will follow the next GESCI meeting and we will have a late start to show prep so be ready.

Thank you to all those who attended and participated in the the party in December. We had a great meal (thanks for the ham, Jackie), all kinds of tasty sides and desserts, and a great round of "rocky" bingo! Pirates would have been proud of the prize swapping..

Happy New Year all!

Rob

Dues Are Overdue!

If you have not paid your dues for 2019, you are on the overdue list. Families are \$15 per year, singles are \$10.

Checks can be made out to West Central Illinois Rock and Mineral Club or WCIRMC and mailed to our treasurer J.C. Moore. His address is 25235 N. IL Hwy. 97, Cuba, IL 61427.



News from the American Federation

2019 is the Midwest Federation's turn to host the American Federation Convention. The Cedar Valley Rocks and Minerals Society will be hosting both the MWF and AFMS Conventions at their show March 23-24. If you have not been to this show in Cedar Rapids, Iowa, this will be an excellent chance to attend. It is a large show with tremendous attendance figures the last several years.



News from the Midwest Federation

The MWF will be meeting in Cedar Rapid, Iowa, on March 23. The MWF Council of Delegates Meeting will be held on Saturday, March 23, at 1:00 p.m. Our club will need a delegate to represent us at the meeting.

This is not only a good time to learn about the business of the Midwest Federation, but a chance to meet other members of clubs throughout the parts of twelve states that make up the MWF.



News from Geodeland Earth Science Clubs, Inc.

The 2019 Geodeland Show is March 9-10 in the Western Illinois University Student Union Ballroom. The theme this year is Geodes. Be looking for some nice geodes in your collection to add to the club display, or do a separate display of your own. See Donna Moore for a form if you wish to do a display.

Geodeland's board of directors next meeting is January 26. They will be completing details for 2019 and planning a theme for 2020. If you have any suggestions, please send suggestions to the Courseys, the Moores or Dee Sharf if you have suggestions for the theme or anything else about the Geodeland Show.

2019 SHOW CALENDAR

2019 Conventions and Shows

March 9-10: MACOMB, IL Geodeland Earth Science Clubs Annual Show, Sat 10 am - 6 pm; Sun 10 am - 5 pm. Student Union Ballroom, Western Illinois University, Murray Street, Macomb. Contact: Deb Courey, 372 Know Rd. 200 N, St. Augustine 61474; (309) 368-2947; courseyfarm@gmail.com

March 23-24, 2019. CEDAR RAPDIS, IA The combined MWF and AFMS Convention will be hosted by the Cedar Valley Rocks and Minerals Society

April 13-14, 2019. CANTON, IL Fulton County Rockhounds, Wallace Park, Walnut Street and Ave. D. Free Admission.

August 24-25, 2019. East Peoria, IL Geology Section: Peoria Academy of Science. East Side Center, #1 East Side Dr. Free Admission.

October 5-6, 2019. Lincoln Orbit Earth Science Clubs, Inc. Illinois State Fairgrounds, Orr Building, Springfield, IL. \$2 Adults, \$1 Seniors, 12 and under free.

Minutes from the December Meeting

Those in attendance were Missy Lescher, Rob Heath, Ron and Dee Sharf, George and Deb Coursey, Barb Moore, Russell Andrews, Julie Irish, David and Linda Hess, Drew and Rachel Divers, Terry and Jackie Sullivan.

The evening began with our annual holiday meal. There were many delicious items to choose from!

Business meeting:

Secretary's report – George moved to accept the minutes. Russell made the second and minutes were approved.

Treasurer's report – JC left a written report to be presented at the meeting. There was a correction noted that the date was listed as October but was intended to be November.

Beginning balance on November 1, 2018	\$1,158.04
Expenses	\$5.00
Receipts	\$97.25

Ending balance on November 30, 2018 \$1,250.29
Ron moved to accept the report as presented and with the noted correction. George seconded and report was approved.

Old Business – Officer elections were held. President Heath asked for nominations for new officers. There were

no new nominations or persons interested in assuming a position. It was moved by Ron and seconded by Missy that the current officers retain their positions for the 2019 term. President Heath shared that this will most likely be his final year as President and would like the club to keep this in consideration for next years election. Officers for the 2019 year are:

President – Rob Heath
V. President – Donna Moore
Treasurer – JC Moore
Secretary – Jackie Sullivan

New Business – A discussion was held in regard to cancelling the January meeting since weather has been a factor the last couple of years and many members travel from out of town. Dee moved that we take a vote. George seconded. The vote was decided in favor of cancelling the January 7, 2019 meeting. George moved to adjourn the meeting. Missy seconded and meeting was adjourned.

Program/Activity – Members enjoyed a gift exchange (optional participation) and our annual game of traveling rocky bingo. Everyone seemed to have a great time even when their favorite bags got swiped!

Next meeting – ****NOTE**** There will be no meeting in January. Our next meeting will be February 4, 2019 at 6pm in the basement of the Trinity Lutheran Church, 123 S. Campbell in Macomb.

Respectfully Submitted,
Jackie Sullivan

Pyrrhotite: That other iron sulfide

By Fred Haynes

When most of us think of iron sulfide, we think of pyrite, perhaps those wonderful shiny cubic specimens from Spain or maybe the replaced ammonites and other fossils from Spring Creek in Alden. But there is another relatively common iron sulfide: pyrrhotite.

Pyrrhotite has an unusual formula (Fe_{1-x}S) where x ranges from 0 to 0.2. This is due to vacancies that occur in the Fe position in the lattice. It is rather soft, 3.5-4 on the Moh's scale. It is bronze in color, but tarnishes quickly with exposure to air. Pyrrhotite is also weakly magnetic.

Pyrrhotite is typically intergrown with other massive sulfides, often in mafic igneous rocks like gabbro. It is a common accessory mineral in ores mined for nickel, copper, zinc, gold, and silver. One classic example of this style of occurrence is in the nickel ores of the Sudbury Basin in Northern Canada. WCGMC collected these ores at the Lockerby Mine in the summer of 2017.

There are, however, notable locations where pyrrhotite crystals can be found. The best known locations are probably in Mexico, but a large number of aesthetic specimens have recently been coming out of the Yaogangxian Mine in Hunan Province, China.

(Continued on page 4)

Urban Geology By JimRienhardt

Wayne County Gem and Mineral Club News, January 2019

Hammering away at a stone building might be unacceptable, might even get you arrested. But, maybe putting your urge to collect to rest for a moment will give you freedom to explore in a new way, a chance to look at things that you ignore every day, an opportunity to find treasures that you cannot have, but can share.

While teaching at a community college, one of my classes included a segment on geology. I'm no geologist, but I had learned enough from independent study and the geologists at the school to be able to impart some knowledge to students who knew absolutely nothing and really didn't care. The best I could hope was to spark a little interest, enough that a few students would someday be able to inform their children about how the Earth works, where things come from, how they evolve, and how we make use of it all – both the good and bad.

There were field trips to streams and outcrops, but there were also trips to the nearby environments of the campus and city. We looked at how our rock and mineral resources are used and saw how sometimes the best choices were not made.

We looked at buildings, walkways, curbs, and all variety of rock use. During these urban excursions students were asked to analyze the rock being used. Was it actually rock or was it concrete made to look like rock? We looked at why a particular rock was used for a particular project and if it was the best choice. Was it functional or decorative? Was it local or imported? We found walls of rock slabs filled with fossils on both interior and exterior walls.

The choice of quarried rock over concrete for curbstones also became obvious when the two are compared in the field.

Armed with a magnifying glass, a penny, nail, piece of glass, and diluted sulfuric acid we did our best to identify the rocks we encountered. There were varieties of granite, gneiss, sandstone, limestone and some decorative marble and anorthosite. Some showed weathering by mechanical means and were obviously a poor choice. It was not uncommon to see rock steps into public buildings worn as much as a half inch from foot traffic.

Every locality has its own building material preferences. In this Great Lakes area cobblestone houses are common. Information and pictures of some cobblestone buildings in NY can be found on the

Cobblestone Structures website. The website states, "The recession of the glacier that covered much of New York State in prehistoric times, left small, round stones, known as cobbles, covering the farmland. The cobbles were gathered up and used for building and, as a result, Wayne County is the site of one of the most unusual and beautiful kinds of architecture in this country. Lyons has several beautiful cobblestone homes and buildings, but the most unique is the blacksmith shop in Alloway." Check the blog entry for 2018, March, for many pictures of cobblestone structures in upstate New York. You can choose a specific county to view.

Other common stone is field stone, the more angular rock that gets cleared from the farm. Sandstone and limestone are popular, too. One of my ancestors, John Gridley, built a limestone house in 1812 that still stands in Syracuse. The Onondaga Limestone has been, and still is, quarried as a durable building stone. Often containing fossils, it can be a lead-in to the historical geology of New York. (See USGS site on Onondaga Limestone)

The Gridley house in Syracuse is built of Onondaga limestone. It is 206 years old and looks almost new. Some rocks are better for building than others.

Many wood frame homes in the area were built on stone foundations. My previous home had a stone foundation of carefully fit stone with no cement to hold them in place. Records indicated that the house was built in the early 1950s, but I suspect that the foundation was older than that. From looking at stone foundations of many homes while looking for a new house to buy, I saw a lot of different foundations. Many were built of random rocks held together with concrete that was breaking down and making the foundation unstable. Perhaps the method used in my previous residence was not such a bad idea. It was two feet thick and seemed solid.

During our urban field trips, we could identify the minerals in the different "granites" and see the different grain size from one rock to another. I would ask "why were the grain sizes different?", to see if they had paid any attention during class.

We found some great examples of intrusive quartz veins in curb stones which were generally either granite or gneiss which was a lead-in to a discussion of how that happened. We also found boulders in parks and I questioned how they got there. Most speculated that they had been put there by truck. Some were, some were not, being bed rock or glacial deposit and left as a decorative piece.

(Pyrrhotite from page 3)

My favorite pyrrhotite specimen comes from the Santa Eulalia District in Chihuahua, Mexico. I like the crystals standing behind the rest of pyrrhotite matrix. They appear to be hexagonal in form, but are actually orthorhombic, exhibiting what is often called pseudo-hexagonal form. FOV is 5 cm (2”).

References:

Mindat: pyrrhotite page

Minerals.net, 2017, The mineral pyrrhotite
Morris, S., 2018, Pyrrhotite: Mineral of the Month, The Mineral Newsletter of Northern Virginia Mineral Club

WCIR&MC Officers

President	Rob Heath 772-2729
Vice-President	Donna Moore 789-6501
Secretary	Jackie Sullivan 313-2826
Assistant Secretary	Dee Sharf 253-7300
Treasurer	J.C. Moore 789-6501
Newsletter Editor	Donna Moore 789-6501
GESCI Board Representatives	J.C. Moore 789-6501 Dee Sharf 253-7300 Donna Moore 789-6501

All numbers are in 309 area code.

Meetings

The first Monday of each month (except September, which is the second Monday) at the Trinity Lutheran Church, 123 S. Campbell St., Macomb at 6:00 p.m. (Oct. - March). April through September meetings at 7:00 p.m. May meeting is usually held at Western Illinois University. Call Rob or Donna if you are concerned about weather related cancellations or have other questions about meetings.

Dues (per year)

Individual	\$10.00
Family or individual sponsoring juniors	\$15.00

**No meeting in
January!!
See you on February 4,
weather permitting.**

ROCK CHATTER PUBLICATION
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