

MWF News

Midwest Federation
of Mineralogical and Geological Societies

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PRESIDENT'S MESSAGE

John Donker, MWF President

With the fall season here, where did our summer go? Most people just didn't travel far from home. What a difference a year makes. In 2019 we had rock clubs meeting, shows, banquets, tailgate sales, field trips. 2020, it all came to a stop. We lost many of our friends and fellow rockhounds.



We look forward to 2021, when we can have club meetings, shows, award banquets, and field trips. We especially look forward to seeing our friends once again. Some of our Midwest Federation clubs are beginning to come back from the restrictions put on us by the pandemic. Some are having outdoor swaps, and some are having fall shows. Just stay healthy.

Don't forget to vote this fall. Stay safe, and may God bless.

[Editor's Note: John, the whole Midwest Federation appreciates your determination in being President during a very hard year for you personally. Thank you.]

EDITORS' CONTEST WINNERS ANNOUNCED

Sharon Marburger, Chairman
MWF Bulletin Editors' Aids Committee

The results of the 2020 Bulletin Editors' Contest are in! Congratulations, winners!

With COVID-19 closing down the Midwest Federation Convention, I will be mailing certificates and trophies to the winning editors, who will then award them to the individual authors.

Those entries that were forwarded to the American Federation for judging are planned to be awarded at the virtual AFMS Convention. After that Convention, the awards should be mailed to me from the AFMS, and I will forward all awards to the editors.

Eight editors submitted 18 items, which had been published in 2019, to be judged. One publication was not eligible to compete in the MWF competition this year, due to having won first place in 2018. It was forwarded to the AFMS Bulletin Contest as a Direct Entry.

The following categories had no entries in this year's competition: Mini Bulletins, Adult Poetry, and Original Junior Poetry.

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GREAT PLANNING MAKES A GREAT TRIP

Dave Lehker, Vice President
Indian Mounds Rock & Mineral Club (MI)
Via the September 2020 Arrowhead News

One of the things about the rock and mineral hobby that I really appreciate is the number of ways one can interact with these natural wonders. From bead making to mineral collecting to rock carving, there are so many interesting ways to engage with our natural world. One of the aspects of the hobby that my wife Julie and I find most exciting is the hunt for specimens.

Over the past twenty or so years, most of our travels have included spending some portion of the trip connecting with rocks and minerals. We have been fortunate to be able to travel quite a bit, in part because Julie's employment called for her to travel on a regular basis. We have often used the area where she was traveling to explore the rock and mineral and natural world.

In preparation for these excursions, I spend quite a bit of time exploring how we can best use the time we have in this new (to us) location. I usually start with any of the "Collecting In" books that I can get my hands on. Over the past several years I have developed a pretty good collection of books, such as *Rockhounding Utah* or *Gem Trails of Utah*. These books offer a good way to get into an area with specific directions to specific locations for specific material.

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MWF MEMBER JOINS FRIENDS' BOARD

Jeanine N. Mielecki, Vice President
Chicago Rocks & Minerals Society

Friends of Mineralogy has elected Jeanine N. Mielecki of the Chicago Rocks & Minerals Society to its National Board of Directors. She will serve a three-year term through February 2023. Her home chapter is the Friends of Mineralogy Midwest Chapter.

Jeanine is the Vice President and Public Relations Chair of the Chicago Rocks & Minerals Society (CRMS), responsible for arranging monthly speakers and programs, publicizing the activities of the Society, and administering the CRMS Facebook page. She earned a degree in journalism from the University of Kansas.



Jeanine N. Mielecki mining gypsum at the Alabastine Mine (now closed) in Wyoming, Michigan.

Jeanine first began collecting at age four when she found a piece of chert with a crinoid fossil impression. Since the Midwest USA is rich in fossils and geodes, her early years were spent collecting these. Along the way, Jeanine has acquired lapidary art skills, although she would rather be personally collecting specimens in the field. Jeanine's passion for the earth sciences crystallized into collecting fine minerals when she attended her first Tucson show in 2014.

Founded in 1970, Friends of Mineralogy (www.friendsofmineralogy.org) is a national organization with nearly a dozen chapters from coast to coast in the USA. The group's objective is to promote, protect, and expand the collecting of mineral specimens, while furthering recognition of the scientific, economic, and aesthetic value of minerals and mineral collecting. Membership includes collectors, museum curators, mineralogists, and earth science educators. Friends of Mineralogy is affiliated with Mindat.org, the Mineralogical Society of America, and the Mineralogical Association of Canada.

BULLETIN EDITORS' CONTEST WINNERS ANNOUNCED, CONTINUED

(Continued from page 1)

All entries were judged by a minimum of two judges who did not confer with one another, and the scores averaged. Ranking is determined by a points system.

NEW EDITORS

Arrowhead News, Editor Jim Elliott.
Indian Mounds Rock & Mineral Club
(MI).

SMALL BULLETINS

- 1st Place** **The Strata Data.** Editor Michele Yamanaka, Three Rivers Gem & Mineral Society (IN).
- 2nd Place** **The Quarry.** Editors Jim and Judy Budnik, Cincinnati Mineral Society (OH).
- 3rd Place** **Hidden Treasures.** Editor Jack W. Newcomb, Anoka County Gem & Mineral Club (MN).

LARGE BULLETINS

- 2nd Place** **Ozark Earth Science Club News.**
Editor Madelyn Anderson, Ozark Earth
Science Club (AR).

ORIGINAL ARTICLES - ADULT ADVANCED

- 1st Place** **"Amateur Microscopic Mineralogy"**
by Glenn Shipley, Chicago Rocks &
Minerals Society (IL).

ORIGINAL ARTICLES – ADULT

- 1st Place** **"Fun with Fossil & Mineral
Investigations"** by Andrew Ek, Chicago
Rocks & Minerals Society (IL).
- 2nd Place** **"The Green of Things"** by Michele
Yamanaka, Three Rivers Gem &
Mineral Society (IN).

ORIGINAL JUNIOR ARTICLES – 12-17

- 1st Place** **"Ohio's Isotelus Trilobite"** by Rayni
Rister, Three Rivers Gem & Mineral
Society (IN).

ORIGINAL JUNIOR ARTICLES – UNDER 12

- 1st Place** **"Triceratops"** by Nora Fey, Three
Rivers Gem & Mineral Society (IN).
- 2nd Place** **"Texas Two Step Dino"** by Ziri Boren,
Three Rivers Gem & Mineral Society
(IN).

WRITTEN FEATURES

- 1st Place** **"Our Quest to Quartzite Pow Wow"**
by DeAndra McFarland, Three Rivers
Gem & Mineral Society (IN).
- 2nd Place** **"Sylvania Quarry at South
Rockwood, MI"** by Nancy Carper,
Three Rivers Gem & Mineral Society
(IN).
- 3rd Place** **"My Flint Ridge Field Trip"** by Daniel
Hogan, Three Rivers Gem & Mineral
Society (IN).
- 4th Place** **"The Field Trip"** by Bill Magee,
Livingston Gem & Mineral Society
(MI).

DRAWN FEATURES (JUNIOR)

- 1st Place** **"LaFarge Fossil Garden"** by Nora
Fey, The Three Rivers Gem & Mineral
Society (IN).

SPECIAL PUBLICATIONS

- 1st Place** **"Fluorescent Minerals"** by Dan Snow,
Show-Me Rockhounds of Kansas City
(MO).

DEADLINE CALENDAR

Clubs' ballots for election of MWF officers – as well as ballots from officers and Executive Committee members – need to be postmarked by **September 30th** and sent to MWF Credentials Chair Tony Kapta, 1483 E. Wood Street, Decatur, Illinois 62521.

Rockhound of the Year Awards may be submitted at any time for certificates and a mention in the MWF News. Contact Steve Shimatzki, sjs132@gmail.com.

GREAT PLANNING MAKES A GREAT TRIP, CONTINUED

(Continued from page 2)

However, because of the very public nature of the information, these sites tend to be quite picked over. We often use the ideas in the books as a jumping-off point, and like to explore areas in the vicinity of the sites.

I also pick up an "Atlas and Gazette" map book on the State we are planning to visit. I find that these large format maps are very helpful in organizing our trips, helping us to see how the various locations are situated in relation to each other. I make notes in the atlas, identifying sites and areas of interest. It also serves to keep track of sites that we may want to revisit in the future. I'm sure there are more up-to-date ways of using maps via phones and the internet, but this way has worked well for us.

I also spend time looking for ideas and leads online. I usually start searching broadly, with, for instance, rock collecting in Utah, and then begin to narrow my Google searches down to the area where we plan to spend time. It's easy for me to spend several evenings looking for ideas online. State websites often have pages dedicated to rockhounding. Most often these sites primarily list the rules and regulations pertaining to rock and mineral collecting, good information to have, but several also offer ideas as to where rock collecting is allowed.

However, in our experience the best lead for successful collecting is to make contact with a person who is familiar with the area and is willing to share his or her knowledge. This is where our connection with the rock club comes in. Many of the places we visit have active rock clubs. These clubs often run field trips and may be open to members of other clubs joining them on their excursions. I usually start by searching for area clubs, visiting their website to get a sense of how active they are, and then contacting one or more of the members.

Many clubs, just like our own, have a field trip coordinator. I usually try to contact the designated coordinator or the president. I identify myself as member of the Indian Mounds Rock & Mineral Club and note the times when I plan to be in the area. Most often folks are receptive to me. We have been able to join club excursions with clubs in Arizona, Canada and California. Several times club members have offered to meet us and take us to sites even when the club has no

scheduled trip. Generally, we have found rockhound folks to be incredibly hospitable and willing to share their knowledge of the area.

One of the bonuses of developing this kind of connection is that we also get recommendations for places to stay and eat, and interesting things to do. Whenever we have plans to meet folks from another club, I make sure to have plenty of Michigan rocks to share. It's amazing the interest that Petoskey stones and Michigan copper generate once one gets outside the Mitten.

I hope some of these ideas will be useful to you as you plan your next trip. While it certainly is true that there are fewer areas to rockhound, with a bit of research and perseverance it is still possible to have great adventures in beautiful areas.

QUORUM RESEARCHES CALCIUM, Q-R

Kreigh Tomaszewski
West Michigan MWF Mineral Study Group

Our mineral study group is working through the periodic table in our current study sequence. Our featured element this month was calcium, but since there are so many minerals that contain calcium we had to limit the study this month to those that started with the letters Q or R. Calcium is the third most abundant metal, after iron and aluminum, and the fifth most abundant element in Earth's crust.

Each month the members of the mineral study group go through their collections to find representative specimens to share with the group. We also do some homework to learn a bit about the subject group of minerals, so we have something to share even if we don't have any specimens to share that month.

Unfortunately, back in March our specimens caught COVID-19, and have been in quarantine since then. Our governor finally decided it was safe enough for them to come out, in small groups, **wearing face masks**.

We started this month with the tectosilicate Quadridavyne. The mineral was approved in 1990 but does not have the standard -ite ending; its name reflects

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BADGES AWARDED TO INDIAN MOUNDS ROCK & MINERAL CLUB FUTURE ROCKHOUNDS



Seven young members of the Indian Mounds Rock & Mineral Club received badges from the AFMS' program for young people, Future Rockhounds of America, at recent meetings in Pinery Park, Wyoming, Michigan. The award recipients and badge categories were: Mathew, Fossils and Earth Processes; Garet, Fossils and Earth Processes; Kay, Field Trips; Cade, Earth Processes and Rocks & Minerals; Luke, Fossils; Bella, FRA Membership and Fossils; and Brianna, Pebble Pup Level Collecting, Fossils, and Earth Processes. Photos from the September 2020 issue of the club's Arrowhead News.

FUN WITH FOSSIL AND MINERAL INVESTIGATIONS

Andrew Ek, Chicago Rocks & Minerals Society
From the club's March 2019 Pick and Dop Stick

[Editor's Note: This article won first prize in the category of "Original Articles – Adult" in this year's Midwest Federation Bulletin Editor's Contest. For a complete list of winners, see the article beginning on page 1 of this issue.]

Pictured here is a nice *Eucalyptocrinites* crinoid calyx I found in a Racine Formation spoil pile in Cook County on the western edge of Chicago. The sedimentary rocks in this formation are from the Wenlockian Epoch, Silurian Period, approximately 430 million years ago. These are carbonate rocks formed when Illinois was submerged in an epicontinental tropical sea, not unlike the coral reefs of the Bahamas today. The fossils found in the Racine Formation are the remains of extinct reef animals preserved through deep time, long before dinosaurs or humans. Corals, crinoids, trilobites, cephalopods and brachiopods are some of the common creatures of the fauna.



A Eucalyptocrinites crinoid calyx found in a Silurian-age Racine formation spoil heap in Cook County on the western edge of Chicago. Photo by Andrew Ek.

The fossils are considered "steinkerns," which means the original skeletal material of the organisms has dissolved away during diagenetic processes, leaving perfect internal molds. Some taphonomic features can be easily observed in some fossil assemblages of the Racine Formation, but others are not so obvious as they seem to be floating in a sort of void with seemingly little context. Here, with this crinoid, we cannot readily observe much in the realm of taphonomy, except that it was probably a fairly

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FUN WITH FOSSIL AND MINERAL INVESTIGATIONS, CONTINUED

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rapid burial, but if we look at the mineralogy, we can at least infer a few other intriguing aspects.

First, there is a light sprinkling of tiny, dark-colored iron oxide crystals, many of which are visible only under magnification. These are commonly indicative of anoxic waters and may have precipitated as a result of postmortem microbial activity. Dolostone is formed from limestone on the ancient seafloor. Over time, magnesium-rich waters flushed through the limestone and recrystallized it into dolostone in a process called neomorphism, which often retains original depositional textures, bedding and fossils.

In general, dolostone is composed of the minerals dolomite, calcium, aragonite and magnesium. Sometimes impurities such as iron may stain the crystals brown to red. In the case of this crinoid specimen, the dolomite seems to be quite pure and fine grained, so it is difficult to distinguish between crystal types (e.g., calcite, dolomite, etc.).

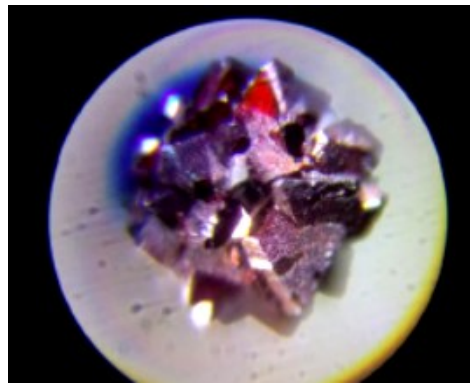
In order to identify what the white crust-like mineral near the top right of the crinoid calyx was, I decided to do an acid test, aka fizz test. An acid test is used by geologists to see what minerals react with acid by observing carbon dioxide gas bubbling.

The test was performed by breaking off a small piece and crushing it into a powder using a mortar and pestle. The powder was then submerged in 5% vinegar and also in a separate vial containing 10% hydrochloric acid, at room temperature, then carefully observed for reactive fizzing. There was no reaction. Because calcite, dolomite and aragonite react to acids, those minerals could be ruled out.

After a look at the morphology of the mysterious white mineral under the microscope, I came to the conclusion that it is gypsum efflorescence, since gypsum is a white salt commonly associated with dolomite. Now, I am just an amateur, so please take this analysis with a grain of salt (no pun intended)!

Back to the iron oxide crystals. How to distinguish between marcasite and pyrite? Both minerals are considered polymorphs composed of iron sulfide. Pyrite occurs as pale brass-yellow cubes, pyritohedra and octohedra lattices, often twinned,

radiating or globular. Marcasite has the same chemical formula (FeS_2) as pyrite but crystallizes in orthorhombic prismatic crystal structure, spearpoint twins and radiating forms. To determine whether these were pyrite or marcasite, it was necessary to examine the specimen under the microscope.



Tiny, dark-colored iron oxide crystal under magnification. Photo by Andrew Ek.

I found a crystal in the upper center of the calyx that looked particularly beautiful and carefully plucked it off the fossil using a scalpel. Then it was placed on a concave glass slide using tweezers under reflected light. It was about the size of a grain of sand.

It appeared to have an orthorhombic prismatic crystal structure with a lush purplish-red iridescence, which meant that it was not pyrite, but oxidized marcasite crystals. The crystal's three-dimensionality proved difficult to photograph.

Thanks for reading and I hope this article inspires others to take a closer look at what might otherwise appear to be "just a rock."

Happy Hunting!

THOUGHT FOR THE YEAR

Ed Wagner, President and Editor of the Lincoln Orbit Earth Science Society (Illinois), came up with a quip that is, he says, "the most popular thing I have said all year":

"If 2020 was a rock, it would be a leaverite."

UPCOMING EVENTS

NOTICE! The shows in this calendar are still being held, TO THE BEST OF OUR KNOWLEDGE. Some shows may have cancelled without giving notice to the MWF News. Before going to any rock show that requires you to travel, please call ahead to be sure that the show is still being held.

SEPTEMBER EVENTS KNOWN TO BE CANCELLED: Tri-State Gem & Mineral Club show in Joplin, Missouri; Steele County Gem & Mineral Club display at the Steele County Free Fair in Owatonna, Minnesota; Grand Traverse Area Rock & Mineral Club show in Traverse City, Michigan; Oshkosh Earth Science Club show, Oshkosh, Wisconsin.

OCTOBER EVENTS KNOWN TO BE CANCELLED: Lincoln Orbit Earth Science Society show in Springfield, Illinois; Midwest Mineralogical Society SuperSwap, Belleville, Michigan; Michigan Mineralogical Society show, Warren, Michigan; Des Moines Lapidary Society show, Des Moines, Iowa; Central Michigan Lapidary & Mineral Society show in Mason, Michigan; Ozark Mountain Gem & Mineral Society show, Springfield, Missouri; Akron Mineral Society show and Summit Lapidary Club show, both in Cuyahoga Falls, Ohio; Minnesota Mineral Club show, Cottage Grove, Minnesota; Evansville Lapidary Society show, Evansville, Indiana; Racine Geological Society show, Sturtevant, Wisconsin.

NOVEMBER EVENTS KNOWN TO BE CANCELLED: Micromineral Society of the Cleveland Museum of Natural History symposium; Michigan Mineralogical Society annual auction, Bloomfield Hills, Michigan; Midwest Mineralogical & Lapidary Society auction, Dearborn Heights, Michigan; Gem City Rock Club show, Quincy, Illinois; Madison Gem & Mineral Club show, Madison, Wisconsin.

Date and Time	Organization	Place	Contact
Sept. 26-27 Sat 10-6, Sun 10-4	Brown County Rock & Mineral Club	Brown County History Center, 90 E. Gould Street, Nashville, IN	Rhonda Dunn, BCRMC2010@gmail.com
Sept. 26-27 Sat 9-6, Sun 10-4	Nebraska Mineral & Gem Club	Ramada Inn Convention Center, 3321 S. 72 nd Street, Omaha, NE	Bruce Sturges, bsturges@yahoo.com
Oct. 3 Sat 9-3	Livingston Gem and Mineral Society outdoor rock swap	Christ Lutheran Church, 5987 Williams Lake Road, Waterford, MI . MASKS MANDATORY.	Isla Mitchell, imvm.l@netzero.com
Oct. 10-11 Sat 9-5, Sun 10-4	Loup Valley Gem & Mineral Society	Methodist Outreach Center, 3602 16 th Street, Columbus, NE	Greg Johnson, loupvalleynew@gmail.com
Oct. 16-18 Fri & Sat 10-6, Sun 10-5	Three Rivers Gem & Mineral Society show	Home & Family Arts Bldg., Allen County Fairgrounds, 2726 Carroll Road, Fort Wayne, IN . MASKS MANDATORY; gloves suggested.	Bev Jenkins, 3riversshow@gmail.com
Oct. 17-18 Sat & Sun, 10-5	Flint Rock & Gem Club	Carter Middle School, 300 Rogers Lodge Drive, Clio, MI	Bill Wendling, bwrockbarn@centurytel.net
Nov. 20-22 Fri 3-7, Sat 10-7, Sun 10-5	St. Louis Mineral & Gem Society	Affton-White Rodgers Community Center, 9801 Mackenzie Road, St. Louis, MO	Melissa Perucca, melissa5301@aol.com
Nov. 21-22 Sat 10-5, Sun 10-4	Anoka County Gem & Mineral Club	Crystal Community Center, 4800 Douglas Drive North, Crystal, MN	Martha Miss, martha@rock-biz.biz

*November Issue Submission Deadline
Is October 7th!*

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QUORUM (OF MWF STUDY GROUP MEMBERS) RESEARCHES CALCIUM Q-R

(Continued from page 4)
its unit-cell volume, which is quadruple that of Davyne.

This was followed by the carbonate Rabbittite, the oxides Rancieite and Rauvite, and the phyllosilicate Rectorite, which almost looks like plant material (similar to mountain leather/Palygorskite).



*Rectorite from Pulaski County, Arkansas.
Photo by Rob Lavinsky/iRocks.com, via Wikimedia Commons.*

We use MinDat.org's "search by chemistry" function to make our alphabetical listing of minerals. The next entry was the Rhabdophane Group, and our representative sample was the -Ce member of this phosphate. A mineral group is a set of mineral species with essentially the same crystal structure and

composed of chemically similar elements, and we spent a while discussing groups.

Then it was back to passing specimens, with the inosilicate Rhodonite leading off, followed by the phosphates Richellite and Richelsdorfite, the inosilicate Richterite, and the phosphate Robertsite. The Robertsite specimen was somewhat unique in that it was a Type Locality specimen that came from the collection of Willard (Bill) L. Roberts, whom the mineral was named after in 1973.

The next monthly meeting of the West Michigan MWF Mineral Study Group will be held on October 13th from 7 to 8:30 p.m., at the home of Kreigh Tomaszewski, 653 Burton Street SE, in Grand Rapids. **Face masks will be required.**

We will be studying minerals that contain calcium and have names beginning with the letter S. We try to limit our study range so we have about 25 specimens to fit them into our time frame. All West Michigan rockhounds are invited to attend (but our governor wants us to keep it down to ten). I hope you can join us as we learn about minerals from each other; you are always welcome even if you can't bring any specimens.