

CHERT CHATTER



**OZARK MOUNTAIN GEM
AND MINERAL SOCIETY
OMG&MS**

Chert Chatter

February 2022

Ozark Mountain Gem & Mineral Society

505A W Mt. Vernon Street

PMB #133

Nixa, MO 65714

Email: OMGMS.57@gmail.com

Website: <http://www.omgms.rocks/>

Facebook: <https://www.facebook.com/omgms.57>

President: Amy Hinkler

Vice-President: Angela Richie

Secretary: Greg Goodson

Treasurer: Rick Jackson

Editor: Angel Doran

Show Chairman: Mark Northrup

Field Trip Coordinator: Mark Northrup

Purpose: To study and promote an interest in earth science, geology, paleontology, and mineralogy. To study and promote lapidary and the jewelry-making art and conduct educational programs. To support youth activities and encourage interest in earth science and related areas on behalf of youth.

Monthly Board & Membership Meetings: We meet on the fourth Monday of each month at the Prince of Peace Lutheran Church (enter at the rear of the building – directions below). The Board meeting is at 5:30 PM; the General Membership meeting is at 6:30 PM. In lieu of a December meeting, we have a Holiday party instead.

If Springfield public schools are closed due to inclement weather, the Gem & Mineral Society WILL NOT HAVE A MEETING. If circumstances force us to cancel a meeting, we will post on our Facebook page and send out an email to the membership. Everyone attending is encouraged to practice physical distancing and sanitizing – please restrain from attending if you are feeling ill or have symptoms of Covid. **Please wear a mask due to several members having immunocompromised family.**

Membership: The club's year ends December 31, at which time dues are to be turned in or they are delinquent. Individual Membership dues are \$15, Couple dues are \$25, and Junior dues (16 and under, sponsored by a current member) are \$5. Please send dues to the address above.

New Officers & Board + Dues Due: January 1st Annually

February Meeting Presentation: Angel D on Petoskey Stones

Future Presentations: March – Jeff M on insuring personal jewelry

Contact Janis Dietrich to reserve a spot at an upcoming meeting or request a topic you would like to hear more about.

Chert Chatter Material: If you have any requests for items you would like to see in the Chert Chatter, please email them to OMGMS.57@gmail.com.

Directions to Prince of Peace Lutheran Church: 815 E Farm Rd 182, Springfield, MO 65810

From James River/Springfield: Go South on Campbell, turn East (left) on W Plainview Rd (W Farm Rd 182), Travel 0.5 mile and turn left into the Church. Parking and entrance for the meeting is at the rear.

From Republic: From 60/413 in Republic: Go East to 60 East Onramp toward Springfield. Exit At Campbell and follow the above directions.

From Nixa: Take MO 13/US160 toward Springfield. Turn Right on W Plainview Rd (Farm Rd 182). Travel 0.5 miles and turn left into the church parking entrance. Parking and entrance for the meeting is at the rear.

Board Meeting: 1-24-22

Meeting: 01-24-22

Attendance: Amy Hinkler, Jan Smith, Angela Richie, Mark Northrup, Rick Grills, Rick Jackson, Jeff Mills, Angel Doran

Call to order: 5:40 Online

Christmas Party details mentioned

Report of the Treasurer:

The Treasurer's Report was read by Jan Smith. Mark still has some additional outstanding receipts that will be turned into Rick when he takes over. Motion made to accept the report.

Motion: Angela

Seconded: Rick G

Motion Carried

Report of the Committees:

Field Trips: (Mark) – There may be a chance for a day trip - Lawrence Barry was a club member that would love to have a workday at his place.

Federation Field Trip (during our show in Oct) - Amy mentioned that the President of the Midwest Federation requested the availability of having at least one field trip during the Federation visit in October. The trip would need to be within an hour-ish of Springfield. We could use everyone's input on ideas. We would also need 1 to 2 volunteers (Rick Grills and Jan Dietrich have volunteered) to lead the trip since it will be during the show. It was mentioned to check with the Missouri State Geology Department for (a) a volunteer for a presentation during the show and (b) locations that might be a possibility for a field trip. The Monet Quarry was also brought up.

Spring Gem Fair - Amy would like some volunteers (2 or 3 people) to assist with the function of the Gem Fair. We have to mark out the spaces, put signage out, coordinate the club booth, trash patrol, and general assistance during the show. We will ask the membership at the February Meeting.

There was also talk about raising the space rental per 12 x 12 space (current is \$45) and have it as a reserved space instead of a 1st come 1st serve, with club members getting priority (since it was originally started as a club member fair and was later opened up to outside vendors). The concern is it is becoming more popular, and we want to be able to control the amount of people signing up and not have someone angry coming in and can't get in because it's already full. Signups (with a non-refundable deposit) would fix that.

Amy asked if we needed more signs to post around. Mark stated we could fix some of our current signs to work. We will schedule a workday once the weather is warmer. Other advertising would be online. Need to check into free online outlets to post events and have everyone post the flyer on their Facebook feeds. Rick Grills will check to see about radio spots for community events.

Oct Show - The Federation has requested if we would allow a competition for displays at the show. The Federation would fill the cases, and, if any are left unfilled, we could fill them accordingly. Do we need more cases? Do we need a workday to recondition the cases we have?

Amy would also like someone to volunteer to help with the Federation events scheduling, finding a place to have the banquet, etc. Amy will ask at the February meeting for a volunteer.

Programs: (Janice) - February – Angel Doran, Petosky Stones
March – Jeff Mills, Insuring Jewelry

Unfinished business:

The new training room is ready for use **BUT**, before we start using equipment, we need to have a resolution for preserving the walls and floor from getting stained, splattered, or damaged. Please **do not use** the equipment until we can get this resolved.

Rick mentioned it would be a good idea to have a second check signer, in case the Treasurer is unavailable. Bill Ernst was asked to fill the position since he has been the treasurer in the past. Rick made the motion to have Bill Ernst as the secondary check signer; Rick Grills seconded; all in favor with none against. Motion passed.

In the past there was a discussion of having a scholarship fund set up to donate to a student each year. Jeff Mills has been working on this and would like to have a small committee of 2 to 3 members to help look into some of the aspects of it. We need to see how it impacts the taxes, who would be eligible for the scholarship, how to complete the application process, selection committee, etc. Rick Jackson, Mark Northrup and Rick Grills volunteered to the committee to help Jeff. Jeff will communicate with them directly.

New Business:

Angel D. will be discussing online pay to the membership at the February meeting so we can vote on accepting it or not. Please plan to attend to hear how we can update our club to modern payment methods.

It was also brought up whether we want to continue with lifetime membership (new accounts - old accounts would remain as is). No further was discussed.

Mark moved the PO Box to Nixa. We need to update all materials that have the mailing address on them to be correct. The new address is 505A W Mt. Vernon Street, PMB #133, Nixa, MO 65714.

Closing:

Next Board Meeting: Monday, February 28 at 5:30
Next Member Meeting: Monday, February 28 at 6:30

Closed: 6:15?

Motion: Rick Grills Seconded: Angela Richie Motion Carried

Amy Hinkler - provided minutes



President's Message

First and foremost - Happy Valentine's Day to all of our members. We will be having our meeting this month as normally scheduled. I thank you all for being patient last month. I didn't want to have any opportunity to get someone ill from coming to the meeting since we were at the peak of the Omicron variant here in Springfield during that time. Thank you!

I'm excited to bring some new opportunities this year, and the main one being our workshop/training room at the church. We can now offer training classes to let our members get hands-on experience with some of the different aspects of working with rocks. We do need to do some brainstorming on how we can protect the integrity of the room since some of the equipment can be quite messy. We don't want to get kicked out for trashing out the room, nor do we want to have to invest a lot of money having to repair or replace things. As soon as we can get protection up for the machines, we can start classes for using equipment, too.

Angel D. and her folks have volunteered to host the club library as librarians for club members to check out reading material. The library is set up in the club room so contact Angel to check it out! (Editor Note: We need to gain access to the library so we can create a catalog first.)

We do host the Midwest Federation this year at our October show. They will have seminars throughout the day and a banquet on Saturday night that we all are encouraged to participate in without jeopardizing the show help needed. Everyone that would like to attend the banquet Saturday night is encouraged - each person attending will be responsible for preregistration (to help with the reservations) and payment for their meals. It would be a great peek into what the Midwest Federation does and has to offer each of us.

I will be discussing some of the early preparations needed at the meeting this month and would like all of you to have the opportunity to be a part of this event if you would be interested. More to come meeting night.

We want to help everyone grow in this great hobby so if you have anything you would like more information on, please let one of the Board members know so we can arrange for (a) a chert chatter article, (b) a club night presentation, (c) a training day, or (d) a field trip for it. We need everyone to participate in relaying your interests so we can see if we can arrange it. More likely, you're not the only one interested in something. Don't be shy!!

We'll see everyone on the 28th for the meeting.

Amy



Special Requests

As always, please remember if you have extra rocks, minerals, or small fossils, you can donate them to the October Show's kid's corner activities (need to fit in the space of an egg in the egg crate). Throughout the year, gather smaller pieces for the kid's corner, so we can keep this treasure hunt going. If everyone collects 10 or more per rock trip and donates them, we can have 50 or more to put into the stock for the kids. We need about 200 every year. There are a lot of kids that come to our show looking forward to the events in the Kid's Corner, so let's not let them down.



Upcoming Shows Near Us

- 1/24 - 2/18: Madagascar Minerals Gem Show. 9 - 6 Daily. Norcross - Madagascar Gallery, 201 W Lester St & 208, Tucson, AZ. <https://www.madagascarminerals.com/>
- 2/18 – 2/20: Kirkwood Winter Rock Show. Fri. 4-9, Sat 10-6, Sun 10-4. Kirkwood Community Center, 111 S Geyer Rd, Kirkwood, MO 63122. <https://rocksrulestl.com/home>
- 2/18 – 2/20: Geofest. 10-5. Indiana State Museum, 650 W Washington St, Indianapolis, IN 46204. <https://www.indianamuseum.org/>
- 2/26 – 2/27: Cedar Valley Rocks and Minerals Society. Sat 8:30-6, Sun 9:30-4. Hawkeye Downs Expo Center, 4400 6th St SW. Cedar Rapids, IA 52403 <https://cedarvalleyrockclub.org/>
- 2/26 – 27: Clear Lake Gem & Mineral Show. Pasadena Convention Center, 7902 Fairmont Parkway, Pasadena, TX 77507 <https://www.clgms.org/>
- 3/4 – 3/6: Eastern Indiana Gem and Geological Society, Fri. 10-6, Sat. 10-6, Sun. 11-4. Wayne Co. Fairgrounds, 861 N. Salisbury Rd, Richmond, IN.
- 3/11 – 3/13: Greater Kansas City Association of Earth Science Clubs. Fri. 10-8, Sat. 10-7, Sun. 10-5. KCI Expo Center, 11730 NW Ambassador Drive, Kansas City, MO. <https://www.kcgemshow.org>
- 3/11 – 3/13: GemStreet USA. Fri/Sat 10-6, Sun 11-5. Cuyahoga County Fairgrounds, 19201 E Bagley Rd, Middleburg Heights, OH 44130. <https://www.gemstreetusa.com/>
- 3/12: Annual Silent Auction; Chicago Rocks & Minerals Society. Sat. 6-9. St. Peter's United Church of Christ gymnasium, 8013 Laramie Skokie, Illinois. <https://chicagorocks.org>
- 3/25 – 3/36: Ada Gem, Mineral, and Fossil Club Show. Fri 8-6, Sat 9-5. Pontotoc Country Agri-Plex, 1710 N Broadway, Ada, OK. <https://agmfc.webs.com/>

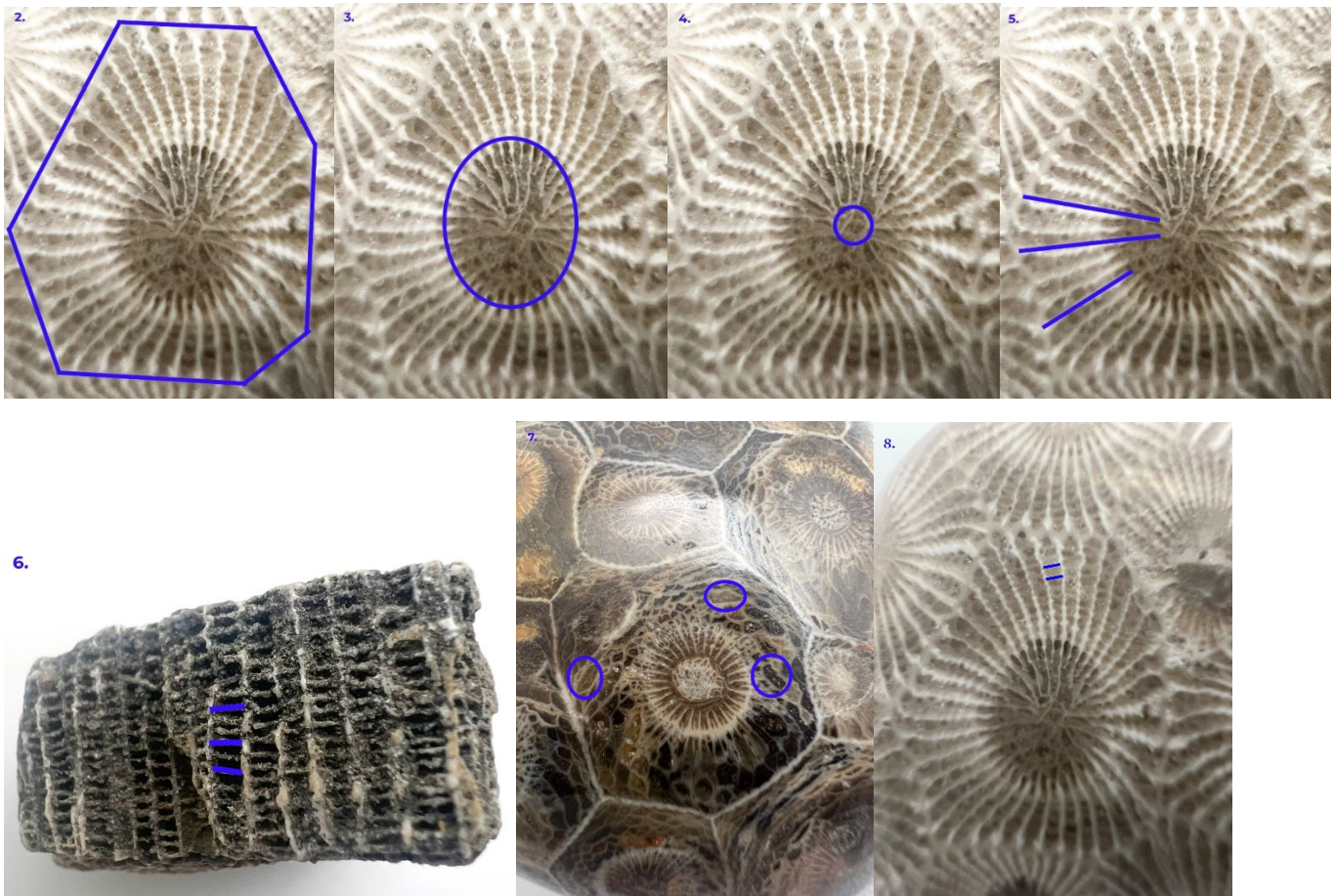


How to Differentiate Petoskey Stones from Other Fossilized Coral

I'm going to cheat a little to save time during the meeting and put some of my presentation here in the newsletter. This is a simple guide so you can see the differences between Petoskey Stones and other types of Devonian coral found in Michigan as well as other types of Rugose corals. Please read because I will only briefly discuss the terminology and will be skipping the rest completely.

Part 1: Coral Terminology

1. Polyp: single coral animal consisting of a soft body with mouth, tentacles, and gullet; this portion of the coral is not visible in the fossil record
2. Corallite: the skeletal cup in which the polyp sat and could retract itself into; secreted by the polyp
3. Calyx, calice (pl. calyces, calices): the middle of the corallite where the polyp resided
4. Columella: center of the calyx where the septa intertwine or form a dome-shaped or pillar-like projection
5. Septa (pl. septae): radiating support plates from the calyx
6. Tabula (pl. tabulae): as the polyp ages, it continues to deposit calcium carbonate in the corallite, raising the walls; as it becomes submerged, it builds floors underneath it to raise itself up
7. Dissepiment: curved support plates connected to septae and tabulae that provided vertical stability
8. Carina (pl. carinae): vertical crossbar between septa



Part 2: Geologic Timescale

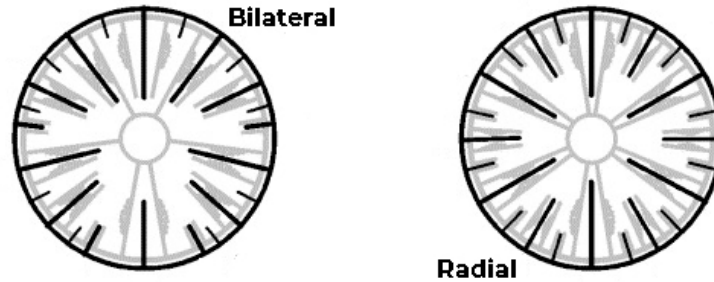
Just a refresher for the next sections.

EON	ERA	PERIOD	EPOCH	Ma
Phanerozoic	Cenozoic	Quaternary	Holocene	0.011 –
			Pleistocene	Late 0.8 –
				Early 2.4 –
		Tertiary	Pliocene	Late 3.6 –
				Early 5.3 –
			Miocene	Late 11.2 –
				Middle 16.4 –
				Early 23.0 –
			Oligocene	Late 28.5 –
				Early 34.0 –
			Eocene	Late 41.3 –
				Middle 49.0 –
				Early 55.8 –
		Paleogene	Paleocene	Late 61.0 –
				Early 65.5 –
	Mesozoic	Cretaceous	Late	99.6 –
			Early	145 –
		Jurassic	Late	161 –
			Middle	176 –
		Triassic	Early	200 –
			Late	228 –
	Paleozoic	Permian	Middle	245 –
			Early	251 –
			Late	260 –
		Pennsylvanian	Middle	271 –
			Early	299 –
		Mississippian	Late	306 –
			Middle	311 –
			Early	318 –
		Devonian	Late	326 –
			Middle	345 –
			Early	359 –
		Silurian	Late	385 –
			Middle	397 –
		Ordovician	Early	416 –
			Late	419 –
			Early	423 –
	Cambrian		Late	428 –
			Middle	444 –
			Early	488 –
Precambrian	Proterozoic		Late Neoproterozoic (Z)	542 –
			Middle Mesoproterozoic (Y)	1000 –
			Early Paleoproterozoic (X)	1600 –
	Archean		Late	2500 –
			Early	3200 –
	Haydean			4000 –

Source: <https://trenton.mcz.harvard.edu/geologic-time-scale>

Part 3: Symmetry

Corals have one of two types of symmetry: bilateral or radial. Humans = bilateral symmetry, starfish = radial symmetry. This is difficult to see, but look for uneven gaps between septa and septa that aren't directly across from each other.



[Palaeozoic corals: their evolution and palaeoecology](#)

Part 4: Most Frequent Types of Fossilized Coral

- *Tabulata* (tabulate)
 - Alive from Ordovician to Permian
 - Weak or absent septa
 - Radial symmetry
 - Always colonial
 - Well-developed tabulae



- *Rugosa* (wrinkled)
 - Alive from Ordovician to Permian
 - Well-developed septa
 - Bilateral symmetry
 - Colonial and solitary
 - Usually possess tabulae



- Alive from Triassic to now
- Well-developed septa
- Bilateral or Radial symmetry
- Colonial or solitary
- No tabulae



Part 5: Tabulate Corals

The following can be found in Michigan and are from the Devonian.

Mound-Shaped



Part 6: Rugose Corals

- *Hexagonaria* (Petoskey Stone)
 - Devonian
 - Corallites tightly packed together in a hexagonal pattern
 - Septa either stop short of the middle or tangle together
 - Septa continue out to the edge of the corallite walls
 - Carinae between septa



- Carboniferous to Permian
- Corallites packed tightly together
- Lens-like columella
- Frequently have large dissepiments between septa and corallite walls



- *Actinocyathus*

- Carboniferous
- Corallites packed tightly together
- Septa do not go past calyx
- Large zone of bubbly dissepiments between calyx and corallite walls



- Silurian
- Corallites loose with no sharp contrast between them
- Tabulae have a wavy appearance

PERMISSION FOR PHOTOS REVOKED; WILL REPLACE ASAP

- *Asterobillingsia* aka *Billingsastrea* (can be found in Michigan)
 - Devonian
 - Large corallites either loose or tightly packed
 - Dissepiments scattered, small, and uneven in size with crests



- Lithostroton
 - Corallites packed tightly together
 - Lens-like columella
 - Look very similar to *Acrocyathus*, but no bubbly dissepiments and sept go all the way to the corallite walls

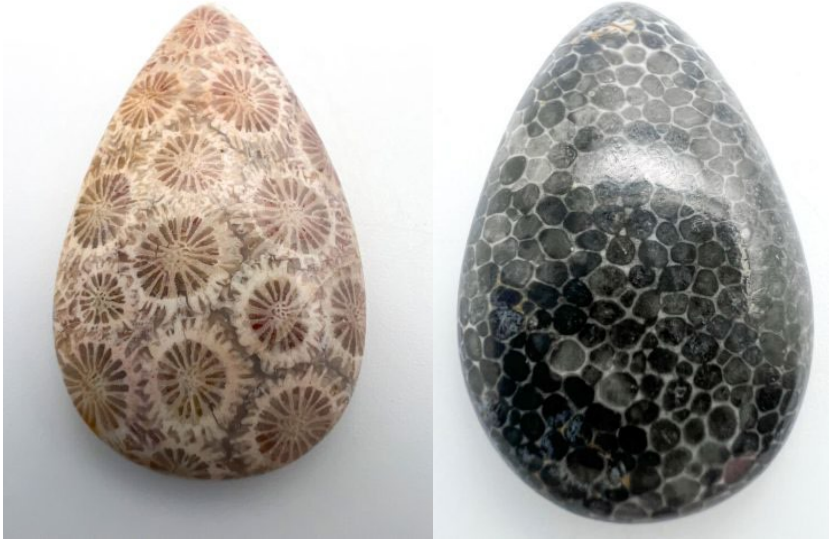


- *Pachyphyllum* aka *Phillipsastrea*
 - Devonian
 - Corallites loosely packed with no sharp contrast between them
 - Calyxes look like craters with raised edges



Part 7: Scleractinian Corals

- Agatized Indonesian Coral aka Chrysanthemum Coral
 - Silicified with very well-preserved coral structure
 - Usually comes in yellows, pinks, or black, but can be heated to bring out deeper, richer colors



- Florida Coral
 - Usually white or off-white

