

Cuyuna Rock, Gem and Mineral Society

The Agate Explorer

January 2019

Dues are overdue!!!!!

You may pay your yearly dues of \$20 (per household) at the meeting or mail it to Cuyuna Rock, Gem, and Mineral Society, 1001 Kingwood St., Ste. B-40, Brainerd, MN 56401. Checks can be made out to the Cuyuna Rock, Gem, and Mineral Society.



Kids' Program

Join Lori to make some rock art at the January meeting.

January meeting Open Shop from 9 a.m.—noon

If you would like to learn how to use any of the lapidary machines available (6, 10, or 16" saw, 6" genie (grinding/polishing) members will be available to help. If you already know how to run the machinery you can come and use it to work on your projects, or help others. You can purchase rocks in the rock room if you don't have any.

Rock Wrappers

Meets starting at 10 a.m. on meeting Saturdays. ,An open gathering for wire wrappers. Hang out with other wrappers, and work on your projects. (Bring all supplies needed.) Learn tricks to make wrapping easier, a new design, or perhaps a new place to find supplies. All skill levels welcome!

Club Calendar

January 12—Open Shop from 9-12; Board Mtg. at 12:00; General Mtg. 2:00. Speaker Bucky Lindgren on making cabochons from start to finish.



February 9—Meeting March 9—Meeting April 13—Meeting May 11 & 12—Show July 5-7 (tentative) - field trip to Thunder Bay for amethyst



Franklin Art Center

Club Information

Website-www.cuyunarockclub.org Email-cuyunarockgemclub@gmail.com

Meeting Place

Lower level Franklin Arts Center 1001 Kingwood St, Brainerd, MN 56401

Directions

.4 mile east of Business Hwy. 371 & Hwy. 210 intersection. (Castle turret water tower.)

Date/Time

the 2nd Saturday of each month at 2 p.m. unless otherwise noted.

Club Dues

\$20/ family Free /unaccompanied juniors Membership runs from Jan. 1-Dec. 31st.

Club Purpose:

To foster an interest (& encourage young & old) to study earth science, enjoy the art of lapidary, hunting for rocks, and semiprecious stones. We also strive to use what we know and acquire to further educate everyone who has an interest in our hobby.

We are a not-for-profit organization.

Information subject to change.



Jewelry Making Tip By Brad Smith www.BradSmithJewelry.com



Make a Texture Hammer

An inexpensive hammer can be easily turned into a great texturing tool by grinding a pattern of narrow lines into its face. The tool I like to use to grind the pattern is a thin cutoff disc in a Foredom or Dremel. Be sure to hold the hammer and cutoff disc steady as you carve, and wear those safety glasses to protect your eyes.

For the pattern to work well, a major part of the face needs to be ground away leaving only small areas of high points. That way

the high points will have enough force to emboss the pattern into your sheet metal. My preference is to use small ball peen or cross peen hammers. They are quite inexpensive from tool dealers at swap meets and rock & mineral shows. There is no reason to buy an expensive hammer to experiment with creating your own textures.

And by the way, if you don't like the first pattern you create, simply file or grind it off and try again.

Cuyuna Rock, Gem & Mineral Society Board Meeting Minutes Saturday December 8, 2019

President Ed Opatz called the meeting to order at 3:30 pm. Present were Vice-President Chuck Durnan, Secretary Joanie Hanson, Treasurer Kevin Martini, Board-Members-at-Large Sharon Smith and Vern Iverson.

We thanked Chuck for his 2 years of service to the Club as vice-president.

The Club made some purchases from the Beaver Bay online auction. Ed will take a check for the purchase and get a check for the sale.

A motion was passed to buy John Leek's Grinder for \$500.00 for the Club and retire some of the older equipment the Club owns.

We will be looking at dates for Kid's Camp for next year.

Ed is looking at the feasibility of doing some kind of sluice box for the show next year.

We are considering doing a special silent auction of Harry's minerals the Friday of the show during the vendor dinner. We will also sell some of his minerals at the silent auction during the show.

Treasurer's report- Will be posted at the Clubhouse.

Kevin went and talked to Wells Fargo Bank about changing the Key Executive on the checking account from Harry Wagoner to Ed Opatz- They required a written motion.

The motion is as follows: A motion was given by Ed Opatz to remove Harry Wagoner as Key Executive of the Cuyuna Rock, Gem & Mineral Society Checking Account and replace him with Edward J. Opatz (President Cuyuna Rock, Gem & Mineral Society) as new Key Executive. It was seconded by Sharon Smith and voted on by all board members present. Signers on the account are Edward J. Opatz and Kevin Martini. All board members that were present voted in favor; none were opposed.

Photos of the board members will be posted in the newsletter.

The club will be taking part in Alex Sample's Agate show Jan 5 at the Landscape Arboretum in Brainerd. We will have the spinning wheel and an education table at the show.

The Rock Box is now at the Landscape Arboretum. They will take 25% of whatever is sold from it.

Respectfully Submitted, Joanie Hanson, Secretary

Meet the Board of Directors

Back row, left to right:

Lilly Peterson, Director Vern Iverson, Director Joanie Hanson, Secretary Lori DuBois, Director

Front row, left to right:

Kevin Martini, Treasurer Ed Opatz, President Sharon Smith, Vice-President

Rox Box

A place to advertise rock items to sell and to inquire about items to purchase.



1

The Cuyuna Rock, Gem & Society accepts no responsibility for any dissatisfaction that may occur by either party, seller or buyer. The Society does not profit in any way by sales transactions.

Sunshine Requests

If you know someone who could use a little sunshine— birth,

> illness, surgery, family death please contact Christi Higgins at 320-224-6650.

For Sale: Grinder/polisher with 8" saw. The Club is selling this piece of equipment. \$300 to a Club member. Contact Treasurer, Kevin Martini, at 218-770-8917 or kjspumanti@yahoo.com.



DON'T

FORGET

THAT YOUR

2019 DUES

ARE DUE!

For Sale: 2 showcases, stained & varnished. Slanted glass front with piano hinge opens wide for easy access from behind. One is 51"x26"x12," 2nd is 48"x26"x12". Very nice condition. \$65 each/\$100 for both. Can deliver to next



Club meeting. Call Butch Goldenstein, 320-252-3335.



Annual Sample's Agate,Gem and Mineral Shop's Agate Show January 5th,

2019 • • • • • Saturday 10 Am-5 Pm



14250 CONSERVATION DR, BAXTER, MN 56425



20 + Vendors

Food

Free Agate Sticker for all kids 13 and under

Admission \$1 Donation

For more information or to reserve space: Call Alex Sample at 218-537-3988 or Email at samplesagates2017@gmail.com



Christmas Party 2018

Photos by Sharon Smith





Cuyuna Rock, Gem, & Mineral Society on the Web www.cuyunarockclub.org



New Dinosaur Species With Long Neck And Tiny Head

Scientists in Brazil discovered a new species of dinosaur, believed to be the oldest long necked animal of its kind in the world.

Three fossilized skeletons of the prehistoric creature, named Macrocollum itaquii, were excavated from 225 million year old Triassic rocks in Agudo, in the southern state of Rio Grande do Sul.

The discovery of the well preserved remains has international importance in relation to the degree of completeness of the species and is the first muzzle to tail dinosaur found in Brazil.

The new dinosaur, with its elongated neck and tiny head, measured about 11.5ft long and reveals important new information about the evolutionary history of the sauropods because it predates the time the massive herbivorous animals became dominant throughout the planet.

Scientifically, the findings help to bridge a gap in the fossil record of dinosaurs, as there are several skeletons from earlier and more recent periods, but those with approximately 225 million years are quite rare.

And incredibly, the fossil find happened purely by accident as the uncle of Rodrigo Temp M ller, one of the authors of the study, was working on a new build in the region when he stumbled upon the remnants embedded in a rock.

Paleontologist M ller, of the Federal University of Santa Maria (UFSM) Paleontology Research Centre, said: "The rise of sauropodomorphs is still poorly understood due to the scarcity of well-preserved fossils in early Norian rocks.

"The Macrocollum itaquii is a fabulous discovery because it is a complete and exceptionally well-preserved dinosaur skeleton that helps fill the gap in our knowledge. "We went through comparative analysis comparing these skeletons to other sauropodomorphs in the world and found that it was a new species, based on some (distinct) characteristics.



Precious or Semi-Precious Gemstones—Apatite

Apatite is a phosphate mineral with the chemical formula Ca5(PO4)3 (F,Cl,OH). It's the same mineral that comprises human teeth. The gemstone form of the mineral displays the hexagonal crystal system. Gems may be transparent or green or less commonly other colors. It has a

Mohs hardness of 5.

https://www.thoughtco.com/alphabetical-list-of-precious-and-semiprecious-gemstones-4134639



The fossils were excavated from Triassic rocks, 225 million years old. "The fossils point to what the dinosaurs were like before they developed into the dominant creatures they became and also what characteristics led to the group's subsequent success for millions of years."

Details of the new dinosaur's anatomy, which were bipeds, reveal that a small evolutionary revolution was in progress when the species arose.

The first clue lies in the cervical vertebrae; they are longer in relation to the most primitive forms of the group, such as Buriolestes schultzi, also found in Brazil.

Their neck is six times longer than their height; in the latter the length of the vertebrae is only 2.5 greater than the height.

The skull is relatively small - it is only half the size of the femur - and fragile, another characteristic that would become typical of later sauropodomorphs.

The teeth indicate it had an omnivore and herbivore diet, with coarse tooth serrations, allowing it to probably complement its plant diet with small animals.

The researchers concluded that during an interval of eight million years, the herbivorous diet was improved and the sauropodomorphs grew significantly with the neck

becoming proportionally longer allowing them to reach higher vegetation that that of other animals.

The overall size of the prehistoric reptiles also increased by 230 percent as they evolved into a quadruped posture. They lost their ability to run and instead developed thick, pillar like legs seen in the likes of Brachiosaurus and Apatosaurus.

The study also suggests the animals lived in herds, making it the oldest evidence of this type of behavior in sauropodomorphs.

M ller said: "The discovery of the three creatures, side by side, indicates that they died together. If they died together, they probably lived together in groups."

A paleontology team, formed by professionals from the UFSM and the University of San Paulo (USP), began the fieldwork in 2012 to painstakingly remove the five ton rock with the three skeletons preserved in it. Excavation took 20 days and after a plaster cast sealed the boulder and remains in place, the block was lifted out of its resting place at the beginning of 2013.

The ancient remains have been placed on display in Cappa.

https://www.mirror.co.uk/news/world-news/ scientists-discover-new-species-dinosaur-13646410

Mineral Encyclopedia



"Plagioclase" is the name of a group of feldspar minerals that form a solid solution series ranging from pure albite, Na (AlSi3O8), to pure anorthite, Ca (Al2Si2O8). Minerals in this series are a homogenous mixture of albite and anorthite. The names of the minerals in the series are arbitrarily given based upon their relative abundance of albite and anorthite.

The name "plagioclase" is frequently used instead of one of the more specific names. This is because the minerals of the plagioclase series are very similar and difficult to tell apart without laboratory testing. Thus the name "plagioclase" is commonly used in many field and classroom situations.

Geologic Occurrence of Plagioclase

Members of the plagioclase group are the most common rock-forming minerals. They are important to dominant minerals in most igneous rocks of the Earth's crust. They are major constituents in a wide range of intrusive and extrusive igneous rocks including granite, diorite, gabbro, rhyolite, andesite, and basalt. Plagioclase minerals are important constituents of many metamorphic rocks, such as gneiss, where they can be inherited from an igneous protolith or formed during the regional metamorphism of sedimentary rocks.

Plagioclase is a common clast produced during the weathering of igneous and metamorphic rocks. It can be the most abundant clast in sediments located close to their source area and decreases in abundance downstream. This decrease is partly because quartz is more physically and chemically durable than feldspar and persists in greater relative quantities downstream in eroded sediments.

Physical Properties of Plagioclase Minerals

All feldspar minerals have two directions of perfect cleavage. It is usually easy to distinguish plagioclase feldspars because their two planes of cleavage intersect at 90degree angles, and their cleavage faces often display striations. These properties make plagioclase feldspars relatively easy to identify with a hand lens in coarse-grained igneous and metamorphic rocks. Plagioclase in granitic rocks is normally white, pink, or red in color. In basaltic rocks it is normally gray to black.

Uses of Plagioclase

Plagioclase minerals are important constituents of some building stone and crushed stone such as granite and trap rock. These rocks are also cut and polished for use as countertops, stair treads, wall panels, building facing, monuments, and many other types of decorative and architectural stone.

Some rare specimens of plagioclase exhibit optical phenomena that make them highly desirable gem materials. Many people enjoy the adularescence of moonstone, the aventurescence of sunstone, and the labradorescence of labradorite.

Moonstone

Moonstone is a name given to a gem material that consists of very thin, alternating layers of orthoclase(an alkali feldspar) and albite (a plagioclase feldspar). When light enters the stone, it interacts with these thin layers to produce a phenomenon known as "adularescence" (a white-to-bluish light that floats under the surface of the stone when it is turned under a source of light).

Sunstone

The name sunstone has traditionally been given to a transparent labradorite feldspar that contains plate-shaped copper inclusions which share a common alignment within the mineral. When cabochons or faceted stones cut from this material are moved under a source of incident light, bright flashes of reflected light are produced as the incident rays strike platelets being moved to the angle at which they reflect the incident rays. These flashes from reflective particles are known as "aventurescence." In Oregon, transparent gem-quality labradorite with a yellow, orange, red, blue, or green color is also called "sunstone" when it is mined from the same deposit as the aventurescent material.

Labradorite

Some specimens of labradorite exhibit a schiller effect, which is a strong play of iridescent blue, green, red, orange, and yellow colors when moved under a source of incident light. Labradorite is so well known for these spectacular displays of color that the phenomenon is known as "labradorescence." Pieces of labradorite with exceptional play-of-color are known as

degree angles, and their cleavage faces often "spectrolite." These specimens sell for predisplay striations. These properties make mium prices.

Collector Gems

Plagioclase minerals are rarely found in transparent crystals of exceptional clarity. Well-formed crystals are prized by mineral specimen collectors because of their beauty and rarity. They can sell for thousands of dollars. Transparent material of high quality is also cut into faceted gemstones which are often sold as "collector gems." With a Mohs hardness of 6 and perfect cleavage, these stones are usually considered to be too fragile for use in jewelry.

https://geology.com/minerals/

Physical Properties of Plagioclase Chemical Classification Silicate

Color Usually white or gray. Also colorless, yellow, orange, pink, red, brown, black, blue, green.

Streak White

Luster Vitreous. Pearly on some cleavage faces.

Diaphaneity Translucent to transparent **Cleavage** Perfect in two directions that

- intersect at approximately 90 degrees.
- Mohs Hardness 6 to 6.5
- Specific Gravity 2.6 to 2.8

Diagnostic Properties Perfect cleavage, with cleavage faces intersecting at right angles and striations often present on cleavage faces. Well-defined crystals are extremely rare.

Chemical Composition NaAlSi3O8 -CaAl2Si2O8

Crystal System Triclinic

Uses Plagioclase feldspars are important components of many building stones. Labradorite, spectrolite, sunstone, and moonstone are gem-quality plagioclase feldspars that are popular because of their optical phenomena. Transparent plagioclase of high clarity is sometimes faceted as a collector gem but lacks the durability needed for use in jewelry.



January birthdays

Nona Iverson	1/6
Phil Gotsch	1/15
Kevin Martini	1/18
Cindy Goldenstein	1/21
Jennifer Larson	1/31

January Rock Shows

4-6—SANTA ROSA, CA: Gem Faire Inc; Sonoma County Fairgrounds, Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7 weekend pass; Website: http://www.gemfaire.com 11-13—GLOBE, AZ: Gila County Gem & Mineral Society; Gila County Fair Grounds; Fri.& Sat. 9-5, Sun. 10-4; \$3; Website: gilagem.org 11-13—LARGO, FL: Pinellas Geological Society; Central Park Performing Arts

Center; Fri. & Sat.10-5, Sun. 12-5; \$2 donation; Website: www.PGS.Rocks 11-13—DEL MAR, CA: Gem Faire Inc; Del Mar Fairgrounds; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7 weekend pass; Website: http://www.gemfaire.com

11-13—SARASOTA, FL: Frank Cox Productions; Sarasota Municipal Auditorium, daily 10-5, daily; \$5; Website: http:// www.frankcoxproductions.com/ 11-20—LAUGHLIN, AZ: Tropicana Laughlin Hotel & Casino; daily 10-5; free; Website: https://visitlaughlin.com/event/ gem-mineral-jewelry-and-beadshow/35660/

18-20—SAN RAFAEL, CA: Gem Faire Inc; Marin Center, Sat. 10-6, Sun. 10-5; free; Website: http://www.gemfaire.com 18-20—ST. PETERSBURG, FL: Frank Cox Productions; The Coliseum: daily 10-5, daily; \$5; Website: www.frankcox productions.com

19—NEWTON, MA: Annual Auction; Boston Mineral Club; American Legion Sat. 11-5; free; Website: www.boston mineralclub.org

19-20—DELAND, FL: Tomoka Gem & Mineral Society; Volusia County Fairgrounds; Sat. 10-6, Sun. 10-5; \$4, under 13 free; Website: tomokagms.org 25-27—TYLER, TX: 23rd Annual East Texas Gem & Mineral Show; Tyler Rose Garden Center; Fri. 9-5, Sat. 10-6, Sun. 10 -5; \$5, under 12 free; Website: etgms.com

> We're on Facebook! Cuyuna Rock, Gem & Mineral Society

This is a closed group, so you must ask to join. After being approved you can follow the members' posts and add your own information.

The World of Jaspers

Plasma Chalcedony is a mineral with a hardness of 7 out of 10 on the Mohs scale of mineral hardness. These Trigonally structured gems are made of silicon dioxide, their full chemical compound being SiO2.

Plasma is a massive, semitransparent, leek to dark green variety of Chalcedony (a microcrystalline variety of the Quartz group), microgranular or microfibrous, consisting of speckles of red or brownish-red jasper, resembling drops of blood.

It is translucent to opaque, may be dark green to bright-green, apple-green, or nearly emerald-green, containing microfibrous of actinolite, frequently flecked with white or yellowish spots. Those with red spots are known as bloodstone. Particles of various silicate minerals (chiefly of the chlorite

> Wavehill Agates Wavehill Station, Northwest Territory, Australia

The Wavehill Station is very remote in Northwest Territory of Australia, making it harder to obtain the agates from there. Most found there are heavily fractured with peeling bands, as a result of weathering. Some good specimens have been found and those are usually expensive. group) disseminated through which may be varied by the presence of white or yellow-

ish patches. Its green color caused by chlorite. The colors are not always constant. Plasma is also called heliotrope (its old name) and bloodstone jasper.

Brazil, Australia, India, Madagascar, Egypt, South Africa, the

northwestern states of the USA, have commercial deposits of plasma.

The names heliotrope, now hardly used, and bloodstone, still in common use, are used for a type of chalcedony or plasma with spots of iron oxide or red jasper resembling blood spots against a dark green background. Good-quality material comes from the Deccan trap-rocks, India, from Brazil and many other countries.

http://gem5.com/stone/89/plasmachalcedony/

Most agates consist of interlaying quartz and white, gray, lavender, pink or red agate bands. The inclusions and quartz

(sometimes geodes) nodules are more

resistant to weathering.

For now the large and better specimens can be obtained only from older collection despite few recent attempts at mining the agates.

http://www.sailorenergy.net/Agates/ AgatesAustraliaWavehillAgates01.html

DON'T EXPECT PERFECTION FROM GEOLOGISTS: THEY ALL HAVE THEIR FAULTS.

Rock Room

This Club is unique because it has its own rock store. Here is an inventory of what is available for Club members to purchase. Stop in when you come to the Clubhouse.

Grit and Polish Montana Moss & Blue Agate Montana Petrified Wood Oregon Geodes Chalcedony Desert Rose Plume Agate Yellow Jasper Bruno Jasper Owyhee Picture Jasper Brazilian Agates Amethyst Tee Pee Canyon Agate Hauser Bed Agate Thundereggs Slabs of all sizes and types Condor Agate Septarian Nodules 79 Bed Geodes—Oregon Moroccan White Agate Obsidian Mineral specimens Dinosaur bone Whole Septarians Mexican Luna Lace Agate Starolites





Gemstone Certificates Are gemstone certificates worth anything?

By Jeff R. Graham www.internationalgemsociety.org

The short answer is — sometimes, but often, NO. Gemstone certificates aren't worth the paper they're printed on.

Quite a few things influence a gemstone certificate. The most important thing to remember is a certificate is only as good, honest, and accurate as the person writing it. When you choose a gemologist to certify a gem for you, ask questions. Find out about their experience and reputation. Learn what gem grading system they use. This is critical for the quality of any certificate for a gem you may buy.

Some certificates are done by gemologists with degrees from the Gemological Institute of America (GIA) or another accredited school, and there are many schools. In theory, a certificate written by a GIA gemologist or a graduate of some other well-known gemology school should be reasonably acceptable. Just don't depend on it.

The GIA and other similar institutes have a sales pitch. That is, their gemstone certificates are all quality and consistent. These people promote the "party line," so to speak: their certificates are not only the industry standard but also honest and trustworthy.

In reality, some of these certificates are good, some are not. Some gemologists who write these certificates just barely pass their tests at these schools. They may also lack real life experience. Furthermore, frankly, some have absolutely no business ethics or common sense. Of course, you also have gemologists who graduated top in their classes and have good ethics. So, at best, certificates written by degreed gemologists are a mixed bag.

When you start talking about gemstones and business ethics, some gemologists as well as sellers strive to disclose all available information about a gem. They'll actually look into and check questionable stones.

Take the andesine gemstone scams. Very, very few gemologists or gem dealers investigated undisclosed treatment issues, even though many people had raised serious doubts and questions about these stones. This was years before the scandals actually broke and became public. Although a few gemologists and dealers raised the alarm and questioned the andesine, the vast majority didn't.

On a related note, I think the same scam is happening with the copper treatment of tourmaline to create paraíba-like color. I have personally seen tourmaline treated with copper to make it blue. A few gemologists are warning of problems. However, the big commercial sellers and the gem institutes remain quiet.

You want a seller and/or gemologist who'll inform you of ALL the problems a particular gemstone. Someone who'll say: "I think there's a problem here, even though the trades and institutes don't admit it. I don't recommend buying this stone right now until further testing or evidence is available."

Find an expert or trade types with a fair amount of experience. I've seen dishonest (or at least, "judgment impaired") people write gemstone certificates more than once. Of course, mistakes in grading happen all the time.

A friend, who is a graduate gemologist, got a job doing in-house gemstone certificates for a large retail commercial jewelry company. After working at the job for a few weeks, the boss started to "suggest" quality grades several grades higher than my friend thought the gems should receive. However, he ignored the "suggestions."

A week or two later, he reviewed some of his certificates and found the grades changed. They were higher, in many cases several grades higher. He corrected them and went to his boss to point out the problem. The boss told him another gemologist had looked at his certificates and graded the stones higher. (My friend knew this was a lie; he was the only gemologist at that branch at the time). The boss then lectured him about needing to change his standards. If a gemstone was on the border between grades, he should grade the stone up in value, not down. My friend quit the job.

On some stones, just one grade difference can mean thousands of dollars difference in profits. Personally, when in doubt, I grade a stone "down." However, many commercial sellers bend the grades "up" as far as they can to increase profits.

My friend's story brings me to another factor that contributes to the quality of a gem certificate, in addition to the ethics and experience of the person writing the certificate. The system used to grade the stone also plays an important role. I have some serious disagreements with the colored gemstone grading system the GIA uses. In my opinion, the system is slanted to give the best interpretation to many of the "commercial" cut types of gems. The GIA and other schools need commercial cutters and trade houses to stay in business. These commercial interests also hire the schools' graduates. So, there's a lot of buried self-interest involved.

Money flows from these trade groups and commercial interests and often finds its way into the schools as "gifts" or "contributions." Do a little research and you'll find many articles on scandals in many gemological institutions. You'll also find out about diamond overgrading.

There are many gem grading systems, but no international standard gem grading system exists. I use my own common sense grading system. I think it's the easiest and most honest. But keep in mind, since so many systems exist, you need to know what system the grader used to write a gem certificate. Furthermore, you need to understand how the system works. For example, I've seen some sellers using a system with clarity grades that favored the seller and could mislead consumers.

I'm not impressed by the GIA in particular and institutions in general that offer gemstone certificates or train gemologists to write certificates. I would still say that having a gem certificate from an accredited gemologist is better than nothing. They do have standards, even if they're low ones, in my opinion. In a few cases, you may get an accurate certificate by a good gemologist. Just don't count on it.

Some of the best and most honest gemstone certificates I've seen were written by quality faceters. Some of the worst and most dishonest certificates were from large dealers trying to hustle a dollar.

What you should seek before buying an expensive stone is a gem certificate from someone independent of the seller. This will likely be more accurate, at least as far as the basics. Beware of in-house gem certificates. Do your homework. Make sure you know what gem grading system the certificate writer is using. This will give you a better idea of the quality of the stone in question. Also, learn about the business reputations of the people involved, the certificate writer as well as the dealer.

Gemstone certificates can serve as guide, however, education is best. Educate yourself. Marcia Opatz, Editor Cuyuna Rock, Gem & Mineral Society 1001 Kingwood Street Suite B-40 Brainerd, MN 56401

FIRST CLASS MAIL





The Agate Explorer

January 2019 Official Publication of the Cuyuna Rock, Gem & Mineral Society

Members of AFMS & MWF

Notes from the President

I don't know what it looks like around your house, but there is so little snow here I think we should go look for agates! Have any good fields to look?

With a new year do you have any New Year's resolutions for the rock club? Something you like to have changed? Speakers you'd like to hear? Places you'd like to go?

I'm working on my rock shopping list during our winter travels. Do you have anything that you want me to be looking for?

Hopefully you can make the January open shop time before the meeting. If you are a beginner in using the machines you can come and learn. If you are experienced you can come and teach others. I believe that we are the only Minnesota rock club that has their own machines, and a rock store. Aren't we lucky! One of the main reasons we have these is due to the hard work of putting on a very successful rock show.

The Club is looking for someone to be the speaker coordinator. Maybe that's you.

Happy New Year to all!

AFMS

Club Officers & Board of Directors

cuyunarockgemclub@gmail.com

President: Ed Opatz opatz1@att.net 320-250-1363

Vice-President: Sharon Smith sharon@agatesrock.com 218-829-4992

Secretary—Joanie Hanson secretarycuyunarockgemclub@outlook.com 218-831-2665

Treasurer: Kevin Martini treasurer@cuyunarockclub.org kjspumanti69@gmail.com 218-770-8917

Director: Lori DuBois Director: Vern Iverson Director: Lilly Peterson

Newsletter Editor: Marcia Opatz theisma@hotmail.com 320-250-8120



Ed Opatz