Cuyuna Rock, Gem and Mineral Society

The Agate Explorer

February 2019

Dues are overdue!!!!!

This will be your newsletter last issue if you haven't paid.

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.

February 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.

Kids' Program

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

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

February 9—Shop day starting at 9 a.m.; Rock Wrappers starting at 10 a.m.; Board Mtg. at noon; General Mtg. at 2:00; learn about saws, blades, oil, clamping, etc.
March 9—Meeting
April 13—Meeting
May 4—(note change of date) - Meeting
May 11 & 12—Show
July 5-7 (tentative) - field trip to Thunder Bay for amethyst

Information subject to change.

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 semi-precious 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.

Jewelry Making Tip

By Brad Smith
www.BradSmithJewelry.com

Little Balls

I often use little balls of silver and gold as accent pieces on my designs. They can be made as needed from pieces of scrap. Cut the scrap into little pieces, put them on a solder pad and melt them with a torch. Then throw the balls into a small cup of pickle.

If you need to make all the balls the same size, you need the same amount of metal to melt each time. The best way to do that is to clip equal lengths of wire.

But there's an easier way to get a good supply of balls. Some casting grain comes in near perfect ball form. Just grab your tweezers and pick out the ones you need.

When you need larger quantities of balls, pour the casting grain out onto a baking pan, tilt the pan a bit, and let all the round pieces roll to the bottom. Bag the good ones, and pour the rest back into your bag for casting.

Balls can be sorted into different sizes using multiple screens.

Cuyuna Rock, Gem & Mineral Society
General Meeting Minutes Saturday
January 12, 2019

The Club opened for shop day at 9 am; wire wrappers met at 10 am.

The Meeting was brought to order at 2:05 pm by Vice-President Sharon Smith.

There were 30 people present. 1 new member and 4 visitors. 2 kids.

The show volunteer sign-ups will be available at the next meeting. Please sign up to help at the show.

Sharon reviewed some of the show prep and changes for this year.

Sandi Hilsgen and Sherry Busse have volunteered to take over the club library. When they get it updated and organized then members may again start checking out books. Please see one of them if you want to use the library. Books can be checked out only from meeting to meeting.

The website is mostly updated. Still working on some parts of it.

Door prizes today: Gary Stevenson, Jim Bankey, Phoebe.

Program: Cabochon making/ shop training - Bucky Lindgren couldn't make it to the meeting so Jim Reed kindly volunteered to take over and gave a brief talk on the basics of cabochon making.

Vern, Kevin, Lilly and Sharon helped in the shop with the grinders and saws.

Sharon reviewed general shop safety with members.

Respectfully submitted,
Joanie Hanson, Secretary

Cuyuna Rock, Gem & Mineral Society
Board Meeting Minutes Saturday
January 12, 2019

The meeting was brought to order at 12:10 pm by Vice-president Sharon Smith. Present were Secretary Joanie Hanson, Treasurer Kevin Martini, Board Members-at-Large Lilly Peterson, Vern Iverson, and Lori DuBois. President Ed Opatz was present via phone.

Keys for board members: Chuck turned in his keys to Kevin. Officers have both a building entrance key and a club room key. Board members-at large have a club room key. Club room keys also open the rock-room door.

Treasurer's Report-Kevin: A motion was voted on and passed to pay Harry Wagoner's rock sales ($355.00). Also, to make him an Honorary Lifetime Member of the rock club as a thank you to his many years of service and dedication to our club.

The club checking and savings account has been reset at Wells Fargo. Thank you, Ed and Kevin, for all the work it took to do this.

A motion was put forth, seconded and voted on to pay all the bills this month which includes the club's annual dues and insurance ($903.75) to the Midwest Federation, our umbrella organization.

The rest of the treasurer's report is posted at the clubhouse. Kevin will not be at the February meeting next month- call him if there are any bills, he needs to take care of.

Lanyards- Vern will continue to do lanyards for the club.

Roster- Lori will take over, along with Kevin and Joanie, updating the club roster.

Rock Room- Lilly is in charge of the rock room. Ed Walton has volunteered to help her with this. Ed Opatz will be providing her an updated price list for the rocks.
The May meeting is changed to May 4, 2:00 pm due to conflict with the annual show which had to be changed to the second weekend of May.

Sharon has been working on the show vendor forms and will get them out asap. We are looking at changing the admission charges for the show.

There will be a sluice box as part of The Kid's Korner. Ed and Vern are working on it. Pricing for the activity will be $5 per bag.

The board motioned, seconded and passed $100.00 to be spent on the show card prize. Ed is looking for an appropriate prize while he is out west. A tumbler will again be the grand-prize drawing prize.

Sharon is in talks with a coffee vendor for the show.

The club took part in Alex Sample's Agate show at the Northland Arboretum. Joanie, Lilly, Lori and Ed Walton ran the club table. Alex asked us to do an educational table so it was on minerals of Minnesota, we also had the spinning wheel and geode cracker. We made $308.00.

We were asked to take part in the Mid-Minnesota Builder's Show at the Brainerd Ice Arena in March. The board voted No due to cost and time constraint.

Joanie has been working on the website updates. Thank you, Jim Reed, for all of your help.

Respectfully Submitted,
Joanie Hanson, Secretary

Show Volunteer List

Sign up sheets are now available for the show on May 11 & 12. Please consider helping at our biggest fundraiser of the year.

Show Set up (Friday):

Set up Display Cases (Friday):

Door Admission:

Sat. 9-noon
Sat. noon-3
Sat. 1-5
Sun. 10-1
Sun. 1-4

Club Table:

Sat. 9-1
Sat. 1-5
Sun. 10-1
Sun. 1-4

Door Prizes/Vendor Survey:

Rock Saws/Geode Cracker:

Sat.
Sun.

Wizard of Rocks:

Sat. 9-noon
Sat. noon-3
Sat. 3-5
Sun. 10-1
Sun. 1-4

Silent Auction:

Sat. 9-noon Don Trieglaff, Diane Trieglaff
Sat. noon-3
Sat. 3-5
Sun. 10-1
Sun. 1-4

Security:

Sat. 9-noon
Sat. noon-3
Sat. 3-5
Sun. 10-1
Sun. 1-4

Security—back gate:

Sat. 6-9
Sat. 9-noon
Sat. noon-3
Sat. 3-6
Sun. 9-12-:30
Sun. 12:30-4

Kids' Corner/Sluice Box:

Sat. 9-1
Sat. 1-5
Sun. 10-1
Sun. 1-4

Spinning Wheel:

Sat. 9-noon
Sat. noon 3
Sat. 3-5
Sun. 10-1
Sun. 1-4

Show Tear Down:

Monday AM Clean Up:

Dolores & Tony Sibet

To sign up, please contact Joanie Hanson at 218-831-2665 (leave message); or email cuyunarockclub@gmail.com or Ed Opatz at 320-250-1363.

Cuyuna Rock, Gem, & Mineral Society on the Web

www.cuyunarockclub.org

Sunshine Requests

If you know someone who could use a little sun-shine— birth, illness, surgery, family death—please contact Christi Higgins at 320-224-6650.

We're on Facebook!

Cuyuna Rock, Gem & Mineral Society

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

Australian Dog-Size Dino

When Mike Poben, an opal buyer and fossil fanatic, bought a bucket of opal from an Australian mine, he was surprised to find to find what looked like an ancient tooth in the pile.

Later, he also found a fossilized jaw piece — one that was shiny and glistening with opal.

After showing the two opalized specimens to paleontologists in 2014, Poben learned that they were part of a previously unknown dog-size dinosaur species, a new study finds. This dino lived about 100 million years ago in Australia, back when the landscape was lush and dotted with lakes.

The fossils originally came from a mine in Wee Warra, near the town of Lightning Ridge in New South Wales. The mine's amazing name gave the paleontologists an opportunity that was too good to pass up, so they named the newfound Cretaceous-age dinosaur Weewarrasaurus pobeni.

"Weewarrasaurus was a gentle herbivore about the size of a kelpie dog [a type of Australian herding dog]," said study lead researcher Phil Bell, a senior lecturer of paleontology at the University of New England in Australia. "They got around on two legs and had a long tail used for balance. Because they were small and didn't have horns or particularly sharp claws for defense, they were probably quite timid and would have traveled in small herds or family units for protection."

In that sense, these dinosaurs were likely the kangaroos of Cretaceous Australia, Bell told Live Science. "I think I would have liked one as a pet."

The finding is remarkable, and not just because Poben happened across the fossils in an opal-filled bucket. It's extremely rare to find opalized fossils in general, though "Lightning Ridge is the only place in the world where you find opalized dinosaurs," Bell said.

During the Cretaceous, Lightning Ridge was a flood plain where dinosaurs lived, Bell said. Most of the opalized fossils found there came from marine creatures that lived in a nearby ancient sea. These iridescent fossils include shells, cephalopods known as belemnites and marine reptiles called plesiosaurs.

But sometimes, an opalized dinosaur is also uncovered.

"Occasionally, a bone from a land animal, like a dinosaur, would wash out to sea" and fossilize, Bell said. There, they may encounter silica minerals in the water, the solution that makes opal. Sometimes when these bones fossilized into rock, these minerals would accumulate in in the fossils' cavities, laying down opal. Other times, if the organic bone was still present, these silica minerals could take its shape, preserving its internal structure as opal, according to Geology In, a news site focused on Earth sciences.

Unfortunately, the rest of W. pobeni, at least this particular specimen, is likely lost and gone forever.

"Because these things are exhumed by opal miners, lots of other information is often lost, like their exact position in the mine and any other fossils that were found around it," Bell said. "We know of plenty of cases where a miner has brought up a handful of bones from a single animal. The rest of the thing might have been destroyed in the mining process or sitting in a waste pile at the bottom of the mine."

Poben has since donated the fossils to the Australian Opal Centre, a museum that holds the world's largest collection of opalized fossils, according to National Geographic.

https://www.livescience.com/64522-opal-dinosaur-fossils-in-australia.html

Lake Superior Agates

Some say Lake Superior agates are the oldest in the world. However that may be, hobbyists like to search for them, and anyone can appreciate the remarkable colors and intricate patterns of the polished stones. In 1969 the Minnesota Legislature declared the Lake Superior agate to be the state's official gemstone. Moose Lake, Minnesota has dubbed itself the "agate capital of the world" and Agate Days is celebrated there each year in July.

General description: Lake Superior agates are generally shaped as irregular spheres. They are made up of quartz, often reddened by iron and deposited in layers to create concentric circles that look like the rings on the cross section of a tree.

Lake Superior agates range from about the size of a pea to up to more than 20 pounds. Color: Red, orange, and yellow, all caused by iron, are the main colors in Lake Superior agates.

The history of Lake Superior agates traces back to about a billion years ago. The North American continent began to split, creating a large rift valley, and lava welled up in the area of what is now Lake Superior. Bubbles of air were trapped in the lava (similar to the way bubbles of air appear in a pan of water before it begins to boil.) After the lava cooled, water seeped into the holes created by the bubbles and deposited iron, quartz, and other minerals in layers, creating agates. As the surrounding volcanic rock was worn away by erosion or the scouring action of glaciers, agates were released from the lava and moved to other places.

Rock collectors classify Lake Superior agates according to their appearance. For example, agates that have a cross section showing circles or other shapes repeated in many layers are called fortification agates. The name comes from the fact that the shapes look like the walls of a fortress. The eye agate has circles that look a little bit like eyes on its surface. Moss agates have tree-branch-shaped bits of minerals trapped in them.

Despite their name, Lake Superior agates can be found throughout much of Minnesota. That's because 10,000 years ago, glaciers carried them far from their origin in the Lake Superior region. People often look for them on the banks or at the mouths of rivers, in gravel pits, or in other places where pebbles and gravel abound.

https://www.dnr.state.mn.us/snapshots/rocks_minerals/lakesuperioragate.html

Mineral Encyclopedia

Scapolite

is a name used for a group of aluminosilicate minerals that includes imeionite, marialite, and silvialite. Meionite and marialite are end members of a solid solution series. Silvialite is a mineral that is very similar to meionite.

These minerals have very similar compositions, crystal structures, and physical properties. They cannot be easily distinguished from one another in the field or during hand specimen examination in a laboratory. The name "scapolite" is a term used for convenient communication. These minerals are found in small quantities in some metamorphic and igneous rocks. Their compositions are compared in the table below.

Physical Properties of Scapolite

Scapolite has an appearance that is very similar to many feldspars. As a result, it can easily be overlooked in the field and during hand specimen examination in a laboratory. Massive scapolite is found in regionally metamorphosed rocks such as marble, gneiss, and schist. These massive specimens often exhibit a wood-grain or fibrous texture which facilitates their identification. Well-formed, gem-quality, prismatic crystals with a square cross-section are sometimes found in marbles.

In metamorphosed igneous rocks, especially gabbroand basalt, scapolite often occurs as complete or partial replacements of the feldspar grains. Crystals of scapolite are sometimes found in pegmatites and rocks altered by contact metamorphism.

Scapolite minerals are easily attacked by weathering. They are some of the first minerals attacked in their host rocks and easily alter to micas and clay minerals. As weathering begins, the mineral grains lose their transparency, become opaque, and have a reduced hardness.

Uses of Scapolite

Scapolite does not have a role as an industrial mineral. It is rarely found in minable quantities and does not have a composition or physical properties that make it of industrial use.

The only use of scapolite is as a minor gemstone; however, in that use it can be beautiful and interesting. Yellow and pink transparent scapolite can be cut into very attractive gems like the yellow scapolite shown on this page. Some specimens contain tiny fibrous inclusions that produce a "silk" within the stone that reflects light to form a cat's-eye.

Scapolite has a Mohs hardness of between 5 and 6, which is too soft to serve as a ring stone. Its use is therefore limited to being a collector's stone and being mounted in jewelry such as earrings and pendants that have a low risk of impact or abrasion.

https://geology.com/minerals/

Physical Properties of Scapolite

Chemical Classification Silicate
Color Colorless, white, gray, yellow, orange, pink, purple
Streak White
Luster Vitreous
Diaphaneity Transparent to translucent
Cleavage Good
Mohs Hardness 5 to 6
Specific Gravity 2.5 to 2.7
Diagnostic Properties Luster, specific gravity, massive specimens often have a wood-grain or fibrous appearance, prismatic crystals have a square cross-section
Chemical Composition A solid solution between marialite ($Na_4(AlSi_3O_8)_3Cl$) and meionite ($Ca_4(Al_2Si_2O_8)_3(CO_3,SO_4)$)
Crystal System Tetragonal
Uses Faceted gemstones and cat's-eye cabochons.

February Rock Shows

1-3—ROSEVILLE, CA: Gem Faire Inc; Placer County Fairgrounds; Fri. 12-6, Sat. 10-6, Sun. 10-5; $7 weekend pass; Website: http://www.gemfaire.com

2-3—MERRITT ISLAND, FL: Central Brevard Rock & Gem Club; Kiwanis Recreation Center; Sat. 10-5, Sun. 10-4; $5, contact Rosalind Mestre, (321) 431-0159; Email: roz.mestre@att.net

8-10—QUARTZSITE, AZ: Quartzsite Gold, Treasure & Craft Show; QIA Building; Fri. & Sat. 9-4, Sun. 9-3; $5; Website: QuartzsiteAZGoldshow.com

8-10—MELBOURNE, FL: Frank Cox Productions; Melbourne Auditorium; daily 10-5; $5; Website: http:www.frankcox productions.com

9-10—OAK HARBOR, WA: Whidbey Island Gem Club; Oak Harbor Senior Center, Sat. 9-5, Sun. 9-4; Free; contact Keith Ludemann, (360) 675-1837; Email: rock9@whidbey.net

15-17—INDIANAPOLIS, IN: Indiana State Museum & Historic Sites; Indiana State Museum; Daily 10-5; Website: www.indianamuseum.org

15-17—SANTA BARBARA, CA: Gem Faire Inc; Earl Warren Showgrounds; Fri. 12-6, Sat. 10-6, Sun. 10-5; $7 weekend pass; Website: http://www.gemfaire.com

15-17—SARASOTA, FL: Frank Cox Productions; Sarasota Municipal Auditorium, daily 10-5; $5; Website: http:www.frankcox productions.com

16—LLANO, TX: Friends of the Llano Red Top Jail; Llano County Community Center; Sat. 8:30-5; free; Website: www.prospectingtexas.com. event page

16-17—ANTIOCH, CA: Antioch Lapidary Club; Contra Costa County Fairgrounds; Daily 10-5; $6, Under 12 free; Website: www.antiochlapidaryclub.com

16-17—GEORGETOWN, TX: Williamson County Gem & Mineral Society; Georgetown Community Center; Sat. 10-6, Sun. 10 -5; $3; age 6-12 $2, under 6 free; contact Sarah Parks; Email: sparksaustin@ outlook.com

22-24—COSTA MESA, CA: Gem Faire Inc; Fri. 12-6, Sat. 10-6, Sun. 10-5; $7 weekend pass; Website: http:// www.gemfaire.com

22-24—PORTLAND, OR: Oregon Agate & Mineral Society; OMSI Auditorium; Daily 9:30-5:30; free; contact Ken Thistle, (360) 891-8088; Email: kthistle815@gmail.com

22-24—CLARKDALE, AZ: Mingus Gem & Mineral Club; Clark Memorial Clubhouse Auditorium; Fri. & Sat. 9-5, Sun. 10-4; free; Website: mingusclub.org/ upcomingshow.html

23-23—PLAINVIEW, TX: Hi-Plains Gem & Mineral Society; Ollie Liner Center, Sat. 10-6, Sun. 10-5; $3, students $1; contact Kitty Shipman, Email: bobcat22@ suddenlink.net

23—LAKELAND, FL: Bone Valley Gem, Mineral & Fossil Soc.; First Presbyterian Church; Sat. 9-4:30; $3, children free; Website: Bonevalley. Net

23-24—VALLEJO, CA: Vallejo Gem & Mineral Society; McCormack Hall, Solano County Fairgrounds, Daily Sat. 10-5; $6, under 12 free; Website: Vjgems.org

23-24—JACKSON , MS: Mississippi Gem & Mineral Society ; Mississippi Trade Mart on State Fairgrounds, Sat. 9-6, Sun. 10-5:30; $6, students $3, under 6 free; Website: http://missgems.org

23-24—ALBANY, NY: New York State Museum; Daily 10-5; $5, under 12 free; Website: http://www.nysm.nysed.gov/

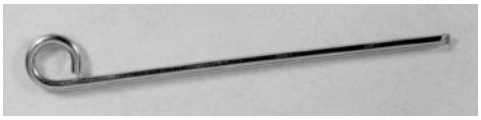
23-24—BOISE, ID: Idaho Gem Club; Expo Idaho Building (County Fairgrounds); Sat. 10-6, Sun. 10-5; $4, under 12 free; contact Brent Stewart, (208) 863-9336; Email: rocksbybrent@gmail.com

The Beginner Wire Wrapper
The Bead Bracelet

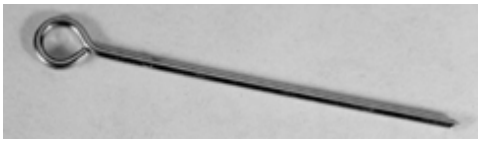
This is a neat, simple, project that will teach you how to string beads with wire. You can take these skills and create bracelets, necklaces, earrings, etc. With different types and sizes of beads you can create many different looks. Don't be afraid to experiment a bit, it's how we all learn a lot of things, by trial and error. You may, however, want to make that "error" with a cheaper wire.

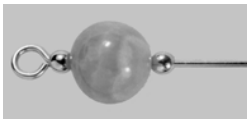
What you'll need for this project:
1-1/2 ft (45 cm) of 21 round hard
6 inches (15 cm) of 22 square hard
11 beads (4 mm or 6 mm – your choice)
22 little gold-filled beads (2mm, optional)
Cutters
Flat-Nose Pliers
Round-Nose Pliers

1. Your first step is to see the Helpful Hint below. Then cut 11, 1-1/4″ (or whatever size is right for you) pieces of 21 round hard. Take one piece and, with your round-nose pliers, make a loop at one end.



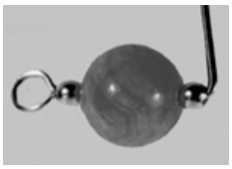
2. Now, with your round-nose pliers still in the loop, bend the loop backwards slightly to that it is now centered.





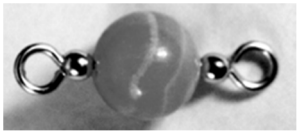
3. Thread on the bead of your choice.

4. Bend the wire at the top of the beads over at a right angle and cut off about 3/8-inch from the bead.

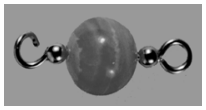


5. Now, with your round-nose pliers, begin to curl the wire in.

6. Continue to curl it into a loop until it meets and forms a circle.

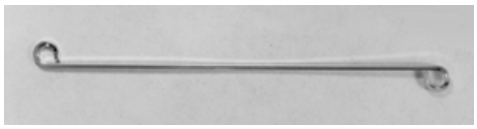


7. Repeat steps 1 to 6 until you have used up all 11 pieces of the wire you prepared. All of your bead links are now done. To join them together, take your flat-nose pliers and open up one of the loops sideways (below), link another loop onto it (below) and close again sideways with your flat-nose pliers (below). Continue Step No. 7 to link all of the beads together.



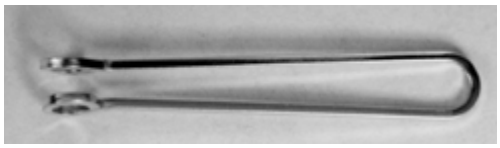
8. Make two S hooks to go on either end of the bracelet.

9. Cut a 2-1/2 inch length of 22 square hard wire. With your round-nose pliers, make a loop at each end of the wire as shown below.

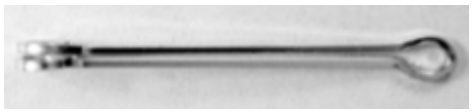


10. With your round-nose pliers still in the loop, pull back slightly to center the loop. Do both loops.

11. With your round-nose pliers, hold the wire in the center and slowly bring it around so you have a U bend, and the two loops meet evenly.

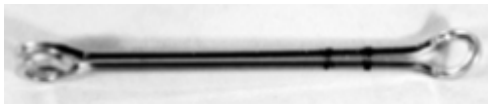


12. Hold the U bend with your flat-nose pliers about 1/8-inch from the end, and gently squeeze together.

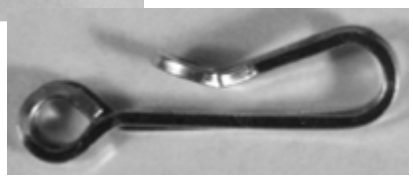


13. Using your flat-nose pliers, bend the loop on the tip up on an angle.

14. Place your round-nose pliers about 5/8-inch from the end (where the marks are in the picture), as shown below.

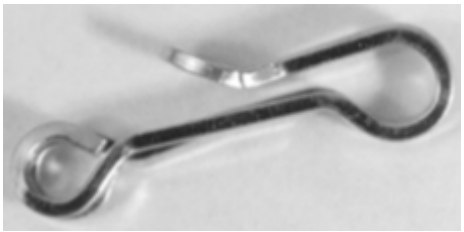


15. Bend it around as shown in the two illustrations here.



16. With the pliers still in the hook, move them to the back of the loop and bend backwards, as shown here.

17. Then bend forward again.



Helpful Hints
To make loops of the same size, mark your pliers with masking tape. Before you cut the 11 pieces of wire into the 1-1/4-inch size, work one piece to completion: This will establish whether your loop is the same size as the one in the project. If you prefer a larger loop, cut your pieces longer.

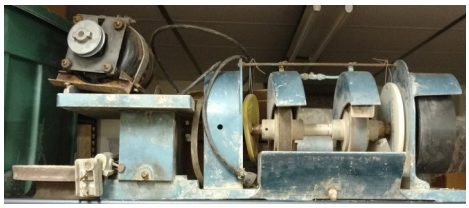
https://www.gemsociety.org/article/the-wire-artist-jeweller/

Rox Box

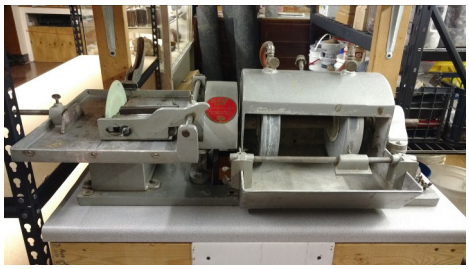
A place to advertise rock items to sell and to inquire about items to purchase.

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.

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 kjspumanti@yahoo.com.



For Sale: Grinder/polisher with 10" saw. Comes with stand. The Club is selling this piece of equipment. $350 to a Club member. Contact Treasurer, Kevin Martini, at 218-770-8917 or kjspumanti@yahoo.com.



February birthdays

John Krebs. 2/17
Sharon Smith. 2/26

The World of Jaspers

Mary Ellen

This rock formed more than two billion years ago in the area that is now the Mesabi Iron Range in Northern, Minnesota. At that time one of the early life forms evolved in the ancient seas. These blue-green single-celled cyanobacteria contained chlorophyll and were able to harvest the energy of the sun to photosynthesize and produce their own food. Energy from sunlight was used to split carbon dioxide into carbon and oxygen. The carbon was absorbed, becoming part of the growing organism, and the oxygen was released into the atmosphere. Prior to the evolution of cyanobacteria, there was almost no oxygen in the atmosphere. Once these organisms developed, they proliferated and helped to trigger drastic changes in the earth's atmosphere, climate, and environment.

Some of the cyanobacteria lived in colonies that produced macro-scale structures called stromatolites. Evidence of fossil stromatolite formations have been found throughout the world so these mushroom-shaped mounds dominated the shores of all the newly developing landmasses, including the area where the Mary Ellen Jasper developed.

The earliest stromatolite of confirmed origin dates to 2,724 million years ago. A recent discovery, however, provides strong evidence that microbial stromatolites extending as far back as 3,450 million years ago. These organisms were extremely resilient and adaptable, allowing them to be a major constituent of the fossil record for the first 3,500 million years of life on earth, with their abundance peaking about 1,250 million years ago.

Until the mid-1950s, scientists thought that stromatolites were long since extinct. That all changed in 1956 when living stromatolites were found in the Hamlin Pool located on the south end of Sharks Bay in Western Australia. Since then, live stromatolites have also been found in several sites in the Bahamas.

http://www.agatelady.com/photo-gallery-mineral-of-the-month-january-2012.html

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—Utah
79 Bed Geodes—Oregon
Moroccan White Agate
Obsidian
Mineral specimens
Dinosaur bone
Whole Septarians—Utah
Mexican Luna Lace Agate
Starolites

Precious or Semi-Precious Gemstones

Diamond

Diamond is pure carbon in a cubic crystal lattice. Because it's carbon, its chemical formula is simply C (the element symbol of carbon). Its crystal habit is octahedral and it is extremely hard (10 on the Mohs scale). This makes diamond the hardest pure element. Pure diamond is colorless, but impurities produce diamonds that may be blue, brown, or other colors. Impurities may also make diamond fluorescent.

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

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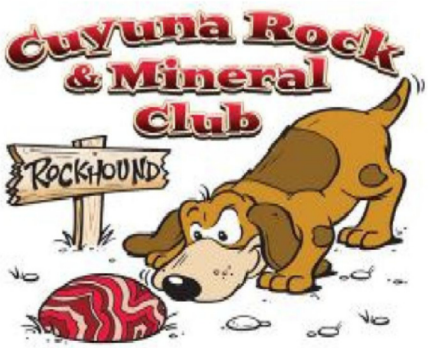
FIRST CLASS MAIL



The Agate Explorer

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Members of AFMS & MWF

Notes from the President

I grew up in a family of negotiators, or wheelers and dealers. Little did I know that this would be great practice for the Tucson (and other) rock shows. Not every vendor is negotiable on prices, but some are, especially the guys from Morocco. A lot of their merchandise has no price listed, so you need to ask. Most of the time the first response it, "How much do you want to pay?" And then we start negotiating. I have found that even if my wife unintentionally walks away, it can help a lot. And if I walk away too sometimes they yell or run after me. I think most of the time I get a pretty good deal. Sometimes I'm buying for myself, but sometimes it's for a friend or for our Club. Just to let you know that I ALWAYS try to get the best price.

The word is getting out about our show, and what I hear is good. Vendors are wanting to get a spot. They hear how many people we draw and that gets them excited. So, of course with all those people we need LOTS of help. You'll notice that the sign up list is in this newsletter. We are starting now because we want people to plan. Some conflicts can't be helped, but we really do hope that almost all our members help in some way. If the show runs smoothly our reputation for a good show will continue. It is a really big fundraiser for our Club, so please help! Besides, you want to come to the show anyway, don't you?

Ed Opatz

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