

ROCK TRAILS



Calumet Copper Mine 1905

Newsletter of the StateLine Gem and Mineral Society

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2018 Officers and Directors

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Meetings are held the first Sunday of each month
at 2:00 PM
at 201 W. Main St., Morenci, MI 49256

President's Tidings



Well spring is just around the corner! Shows will be starting next month(March). Can't wait, so make sure to check the show schedule at the bottom of the news letter. Sandy does a good job letting us know what is coming up. We have the show in Jackson coming up, so this is the meeting we will be setting up the work schedule. It's important that everyone that can come should come this year. As most know I am a vender and can not help this year. We can only have three people at the table.

Henry got a new chain for the cracker and Ed has it at his garage putting it in so it will be ready for this season. Thanks, Henry and Ed, for doing this!

Linda M is still doing the wire wrapping class at Hobby Lobby. I stopped in last Friday to pick on everyone. Bill, Carl, and Pat seemed to be having a lot of fun, so if you are interested in wire wrapping, stop in on Friday or get ahold of Linda M. Thanks, Linda, for the good job!

I have been having a few classes at the club house on Saturday afternoon so any one interested in coming, give me a call (517-673-5487)

This meeting also we will be having a silent auction, so please bring in something for the auction. This is all for the club. Also a a reminder - there is a \$2.00 equipment use charge for using the equipment. There is a coffee can on the table for that. This helps pay for replacement blades. This Sat. I will be replacing the 10" blade with the spare I have.

See everyone at the march meeting

Secretary's Scoop

The February 4th meeting of the State Line Gem and Mineral Society was called to order at 2:18 PM by president Sherm Kardatzke . Ed Jarzembki gave the invocation followed by the pledge of allegiance with all in attendance.

The secretary's report was tabled for the next meeting as our secretary was unable to attend today's meeting due to a farm accident. Hope you are healing well, Heidi, and best wishes for a speedy recovery.

Treasurer's report: Doris paid the Ohio sales and use tax for our earnings at the Fulton County Fair. She also paid rent for the clubhouse, Consumers Power and deposited funds from collected dues and dealer checks. Glenda made a motion to accept the treasurer's report, seconded by Jan and passed with all in favor.

Old business: Sherm reported that he would be going to the Clinton Elementary School on **Monday February 12th from 6 PM to 8 PM** in response to the school's request for our club to present information about our interest in rocks and minerals and the lapidary arts. Last month, Sheri said she would try to get a large amethyst geode to bring to the presentation. Linda Hutchins plans to join Sherm and Ray thought he would be able to attend as well. The presentation is intended to inspire elementary students and peak their interest in the earth sciences.

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Doris reported that she reviewed the club's information sheet and found it was out of date, so she revised it and brought some copies of the revised sheet as well as some membership applications. She thought it would be a good idea to take the info and some of the club's flyers for our show to the above presentation at Clinton Elementary School.

Sherm started a discussion concerning the Jackson show on March 16th, 17th and 18th. He talked with the Jackson show chair, Sally Hoskins and she informed him that there were too many people inside the demonstration area. It apparently caused some hard feelings with some of the Jackson club members. This year **we will be limited to 3 members in the demonstration area** and they do not want us to keep any walkers/rolling chairs inside the demonstration area as the congestion causes problems with entering and exiting the area. It could be considered a safety hazard. Sally suggests that we store the walkers/rolling chairs behind the raffle table areas where they will be out of the way. Some discussion followed and members noted that there would need to be one person attending the grab bag lion and one person on the Genie cabbage machine and two persons cracking geodes. Sherm stated that he mentioned that to Sally but she was firm on limiting the number of active participants to 3. She said the person on the Genie machine would have to assist with cracking geodes so that we may not always have someone using the machine.

Sherm said that Linda Sharkey had sent around 200 grab bags and several mineral specimens to include in the grab bags. Jan said she would check on the number of bags on hand and order more trinkets. We will have a gathering once we have items on hand. Members are encouraged to continue sewing grab bags. Geode, our grab bag lion is a good will ambassador for our club and receives lots of attention.

Sherm noted that we will need to start preparations for our show in June. We will do more of that at our March meeting.

New Business: Sherm stated that he reviewed the Midwest Directory and found that they had DVD's available to rent. He will make the directory available to members to see what might be of interest for future programs.

Glenda mentioned that we would need more Mexican geodes before the Jackson show. After some discussion, Glenda made a motion to have the club purchase 100 lbs. of the 2.75 inch Mexican geodes, seconded by Carl and passed with an aye vote. Doris will order the geodes.

The topic of member name badges was discussed. Sherm and Glenda will look into locating the blank name badges and see about having them available for members.

Doris reminded members that membership dues are due now. She also stated that she corrected Sherm's email address on the show flyers and if anyone had a change in address, he/she should let Sandy know so she could put the correction in the newsletter. Sherm's new e-mail address is : sakardatzke@gmail.com

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Ed mentioned that he was having problems with the local post office, because he only uses a PO Box number but he wants to have his street address available to folks who want to visit his actual location. The suggested solution was to list the address in the following manner:

Ed Jarzembski
PO Box 451
26984 US 20
Fayette, Ohio 43521

Sherm announced that next month's meeting will include a silent auction, so bring your donations and money!

Glenda made a motion to adjourn seconded by Linda and the meeting was adjourned at 3:25 PM.



Ed had a presentation about bolo ties and brought some of his collection for members to see. He stated that the bolo (meaning round) tie was an ancient symbol of a gift of friendship. It could also be used as a weapon under certain circumstances. He stated that it is relatively easy to turn a ladies brooch or pin into a bolo tie and showed us examples of how he had done that. He found a Christmas painted pin, a beaded round pin, and Italian filigree Petoskey stone pin that he turned into bolo ties. A good length for a bolo tie goes almost to the belly button. With particularly tall individuals, it may be difficult to find ready made tie chords so he recommends making your own. He is particularly fond of the spool weaving method he learned from Grit Turner. He also had an Ohio flint tie made by one of our past presidents, Bon Duritsky, which was formed into the shape of the state of Ohio. Ed was wearing a spear head shape bolo tie made by another past member, John Zarnach. Ed made a Labradorite cabolo with the spool weaving technique. Thank you for your presentation, Ed.

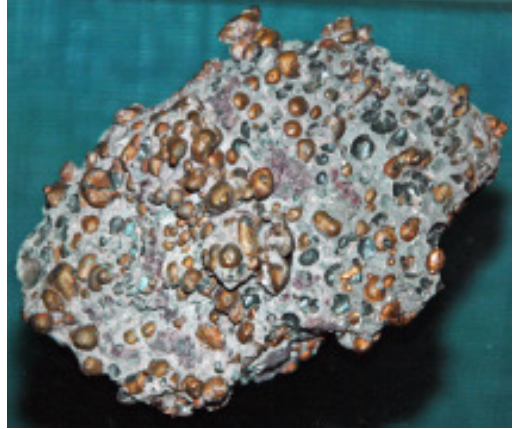
Bill Schultz also had a presentation relating some of his experiences out west. He brought some information from the Quartzite Road Runners Gem & Mineral club. They have an orientation for prospective members and it seemed pretty thorough. He experienced some mechanical problems on his trip but found some equipment and lots of rocks which he was able to bring home with him. The pyrite sun disk he passed around was very impressive as was the "Indian Blanket" rock and the Jasper. Thank you for your presentation, Bill.



Copper Mining in Michigan

While it originated thousands of years earlier, copper mining in Michigan became an important industry in the 19th and early 20th centuries. Its rise marked the start of copper mining as a major industry in the United States.

Within the state of Michigan, copper is found almost exclusively in the western portion of the Upper Peninsula, in an area known as the Copper Country. The Copper Country is highly unusual among copper-mining districts, because copper is predominantly found in the form of pure copper metal (native copper) rather than the copper oxides or copper sulfides that form the copper ore at almost every other copper-mining district. The copper deposits occur in rocks of Precambrian age, in a thick sequence of northwest-dipping sandstones, conglomerates, ash beds, and flood basalts associated with the Keweenaw Rift.



“Shot Copper”

The native copper deposits originate in fissures, steeply dipping veins or in the amygdaloid top portion of the Portage Lake Lava Series lava tops and conglomerate beds. This series of lava “is at least 15,000 feet thick in the Michigan copper district” and consists of “several hundred flood basalt flows.” The district rocks are Precambrian in age and belong to the Keweenaw Series. The first six years of mining exploited the fissure deposits, then gave way to the amygdaloidal deposits.

Although native copper was the dominant ore mineral, chalcocite (copper sulfide) was sometimes present, and, especially in the Mohawk mine, copper arsenide minerals such as mohawkite and domeykite. Gangue minerals included calcite, quartz, epidote, chlorite, and various zeolites. A number of copper mines also contained a notable amount of silver, both in native form and naturally alloyed with the copper. Halfbreed is the term for an ore sample that contains the pure copper and pure silver in the same piece of rock; it is only found in the native copper deposits of the Upper Peninsula of Michigan.

Native Americans were the first to mine and work the copper of Lake Superior and the Keweenaw Peninsula of northern Michigan between 5000 BCE and 1200 BCE. The natives used this copper to produce tools. Archaeological expeditions in the Keweenaw Peninsula and Isle Royale revealed the existence of copper producing pits and hammering stones which were used to work the copper.

By the time the first European explorers arrived, the area was the home of the Chippewa people, who did not mine copper. According to Chippewa traditions, they had much earlier supplanted the original miners. The first written account of copper in Michigan was given by French missionary Claude Allouez in 1667. He noted that Indians of the Lake Superior region prized copper nuggets that they found there. Indians guided missionary Claude Dablon to the Ontonagon Boulder, a 1.5-ton piece of native copper along the Ontonagon River. When American prospectors arrived in the 1840s, pieces of copper were found in streams or on the ground.

Copper Mining in Michigan

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Michigan State Geologist (later to become mayor of Detroit) Douglass Houghton's 1841 copper report, followed by the Treaty of La Pointe in 1843, the publicity of the Ontonagon Boulder back east, and a federal mineral land office at Copper Harbor kicked off the mine rush. The copper pits abandoned by Native Americans led early miners to most of the first successful mines.



Copper mining in the Upper Peninsula boomed, and from 1845 until 1887 (when it was exceeded by Butte, Montana) the Michigan Copper Country was the nation's leading producer of copper. In most years from 1850 through 1881, Michigan produced more than three-quarters of the nation's copper, and in 1869 produced more than 95% of the country's copper.

The miners sometimes found masses of native copper up to hundreds of tons. To extract a single mass of copper, miners could spend months chiseling it into pieces small enough to hoist out of the mine. Although they were pure copper, removing the masses took a great deal of effort, and was sometimes not even profitable. The majority of the copper recovered was "barrel copper" (pieces broken from the rock and hand sorted in the "rock house," and shipped to the smelter in barrels), and finer copper broken loose from the rock in stamp mills and separated by gravity in "buddles" or "jigs."

The copper industry was, for over 100 years, the life blood of the Copper Country. The town of Red Jacket (now Calumet) used a portion of its budget surplus to build The Calumet Theatre, an opulent opera house which hosted famous plays and acts from across the world. Many wealthy mine managers built mansions which still line the streets of former mining towns. Some towns which existed primarily due to copper mining include Calumet, Houghton, Hancock, and Ontonagon. As the mines began to close, the Copper Country lost its major economic base. The population declined sharply as miners, shop owners, and others supported by the industry left the area, leaving many small ghost towns along the mineral range.



Tourism, education, and logging are now the major industries. The copper industry left many abandoned mines and buildings across the Copper Country. Some of these are now part of the Keweenaw National Historical Park. Some mines, such as the Adventure mine, Quincy Mine, and the Delaware mine, are open as tourist attractions. Many other mining lands are simply left abandoned.

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Copper Mining in Michigan

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Copper mining also took a significant impact on the environment. Mine rock processing operations left many fields of stamp sand, some of which grew so large as to become hazards to navigation in the Keweenaw Waterway. Most of these sterile sands are now superfund sites which are slowly being rehabilitated. Mines also required a great deal of wood, for supports in mine tunnels, housing, and steam generation. Virtually every part of the Copper Country was cleared of timber, to the extent that only a few small areas of old-growth forest like (the Estivant Pines) are left. Formerly cleared lands have been left to regrow, to the extent that many parcels of land are now being harvested on a limited basis by timber and paper companies.

https://en.wikipedia.org/wiki/Copper_mining_in_Michigan

Photos in article:

'Shot Copper' By James St. John - Cupriferous amygdaloidal basalt (Mesoproterozoic, 1.05-1.06 Ga; Wolverine Mine, Kearsarge, Upper Peninsula of Michigan, USA), CC BY 2.0, <https://commons.wikimedia.org/w/index.php?curid=39951145>

Miners at the [Tamarack Mine](#) in the [Copper Country](#) of Michigan in 1905.

Copper being loaded onto a steamer in [Houghton, Michigan](#), c1905



Bench Tips

by Brad Smith

MODIFYING PLIERS



Sometimes a few changes to your tools can make work go faster and improve the quality at the same time. Stock tools need to be polished and can be customized using standard jewelry skills. Here's an example:

While making a lot of chainmaile, I noticed I was ending up with a few scratched jump rings that required extra cleanup time before the chain could be polished. So I started looking into what I was doing wrong.

Making jump rings and weaving them into chainmaile designs involves a lot of opening and closing of the rings. I typically use two square jaw pliers to do this, one for each hand. The jaws of my pliers were pretty much scratch free because on a new tool I typically relieve any sharp edges, sand away any tool marks on working surfaces and give those areas a quick polish.



That helped but was not the whole problem. While making chain, rings would sometimes slip out of the pliers or slide within the jaws as I was trying to twist them open or closed. I noticed the jaws close at an angle, and gave me the idea of forming a groove at the end of the jaw that would grasp the ring gently without scratching it. Not only have these pliers worked well for chainmaile, but I've found several other problem jobs that this modification solves very nicely.

To make up what I needed, I bought two inexpensive sets of square jaw pliers. My preference is for jaws that are about 3.5 - 4mm wide. This provides a good fit for the jump rings I use. You need to have enough metal at the tip of the jaws to be able to cut a groove that's deep enough. If your plier tips are too thin, you'll have to cut them back. Locate and mark the position on the jaw where the thickness is about 1.6 - 2mm.



Cut the tips off with a cutoff wheel or grind them off with a bench grinder. If using a cutoff wheel, be sure to brace and hold both the workpiece and the rotating handpiece securely. If either moves, you will break the abrasive disk. And remember when cutting any metal with a motorized tool, be sure to use good eye protection. A little piece of debris in your eye makes for a bad day.

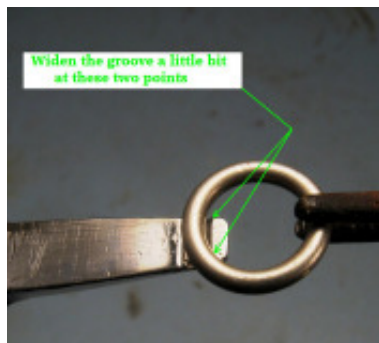
Now to make the grooves round so they grasp the wire without distorting it, I close the jaws and run a drill through the opening formed by the two rough grooves. I start with a small drill and followed up with a drill just slightly smaller than the wire size I want to grip. In my case that was 14 gauge wire, so I chose a #53 drill.



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Finally, the shape of the grooves needs to be refined. I used a coarse, knife edge, silicone polishing wheel on the flexshaft to polish off all marks left by the drill and to round off the outer edges of the groove.



Test for proper fit by laying a jump ring into each groove. In particular, inspect the way the edges of the groove contact the inside of the ring. You may need to widen the groove at this point to avoid the pliers leaving a nick. Do a final polish so the jaws will not scratches as they grip a ring. I used a medium grit, knife edge, silicone polishing wheel but a sewn buff with tripoli or Zam would also work well.

MANAGING PRODUCTION

Many readers of these BenchTips sell their jewelry at shows, in galleries or online. They are sole proprietors and constantly under pressure to design new pieces and make enough product to keep up with demand. So their options are few when a large order comes in. They can burn the midnight oil themselves, or they can be smart and get some temporary help. But you need good help, and you often need it fast.

Jewelry assemblers are skilled, trustworthy and reliable craftsmen who make it their business to help others handle overloads and meet deadlines. Flexible arrangements are possible, working by the job, by the hour or by the piece. Each has a different mix of skills, from fabrication to enameling, casting, stonemasonry, lapidary and others.

Assemblers are known to the trade, so you may have to ask around to find some references. But some assemblers advertise on the Net. For instance, a good friend of mine, Janice Metz <JenFT4@aol.com>, has been working with designers and fabricators in the West Los Angeles area since 1997. She specializes in silversmithing, wire-wrapping, beading and stringing.



See all Brad's jewelry books at
[Amazon.com/author/BradfordSmith](https://www.amazon.com/author/BradfordSmith)

Upcoming Events

Sunday, March 3, 2018

State Line Gem & Mineral Society

monthly meeting

2:00 p.m.

201 W. Main St.

Morenci, MI 49256

Silent Auction! Bring your items!

March 3rd & 4th, 2018

Livonia, MI

The Roamin Club Silent Auction

Schoolcraft Community College

18600 Haggerty Rd.

Livonia, MI

March 16 - 18, 2018

Jackson, MI

Michigan Gem and Mineral Society

Annual Show

American One Event Center

200 W. Ganson St.

Jackson, MI

March 24, 2018

Taylor, MI

46th Annual Metro Rock Swap

hosted by The Midwest Mineralogical

& Lapidary Society

1 PM to 5 PM

St. John's Lutheran Church

13115 Telegraph Rd.

Taylor, MI

Free Admission, Free Parking

Public Invited

April 5, 6, & 7, 2018

Wyoming, MI

Indian Mounds Rock & Mineral Club's

43rd Annual

GEM & MINERAL SHOW

Thursday 9:30 a.m.—9:00 p.m.

Friday 9:30 a.m.—9:00 p.m.

Saturday 9:30 a.m.—7:00 p.m.

Rogers Plaza Town Center

972 28th Street SW in Wyoming, Michigan

FREE ADMISSION & PARKING

1/4 mile west of US 131



Dues Notice

This will be the last notice for this year about 2018 membership dues. Many members have already paid their dues, however there were quite a few that haven't. I understand that we all are busy and how things can just slip by. I sent out 14 e-mails (3 were returned as not deliverable) and snail mailed 10 letters. I am supposed to contact members who haven't paid their dues according to our Constitution and By-Laws. If you are not able to continue your membership at this time, we will miss you, but invite you to stop by and visit us at the clubhouse or different events we attend throughout the year.

Doris Brzezicki, Treasurer

You Might Be a Rockhound If....

You're probably a practicing rockhound if three or more of these signs apply to you...
If ten or more apply you are advised to seek professional help immediately!

- The sign on the side of the road says "Falling Rock" and you pull over to wait.
- The severe sunburn acquired on your last vacation was a one inch wide strip of skin at the gap between the tail of your shirt and the top of your pants.
- When you lick a dirty rock to show off the wonderful colors, without stopping to realize that you are the only rockhound in the group.
- Your kids bring you a "pretty stone" they've found, and you contrive to steal it. And you know you've done it. Don't lie.
- Someone talks about cleavage and you don't think about women.
- Your family puts the birthday candles on a slab of amethyst instead of cake.
- A truck throws a rock into your windshield and you examine the rock first.
- Considering the purchase of a spectacular specimen at a mineral show, you wonder if all three of your kids really need to attend college.
- You can pronounce the word "molybdenite" correctly on the first try.
- You think the primary function of road cuts is tourist attractions.
- You own more pieces of quartz than underwear.
- You associate the word "hard" with a value on the Mohs scale instead of "work".
- The rockpile in your garage is taller than you are.
- You have a strong opinion as to whether pieces of concrete are properly called "rocks".
- There's amethyst in your aquarium.
- Your wife has ever had to ask you to move flats of rocks out of the tub so she could take a bath.
- Your children are named Rocky, Jewel, and Beryl.
- You begin fussing because the light strips you installed on your bookshelves aren't full spectrum.
- You've ever purchased an individual, uncut rock, regardless of the price.
- You've ever spent more than ten dollars for a book about rocks.
- You find yourself compelled to examine individual rocks in driveway gravel.
- You know the location of every rock shop within a 100 mile radius of your home.
- When they haven't seen you for a week, the shop owners send you get well cards.
- You're retired and still thinking of adding another room to your house.
- Your idea of a "quiet, romantic evening at home" involves blue mineral tack and thumbnail boxes.
- You're planning on using a pick and shovel while you're on vacation.
- You think Franklin, New Jersey might be a cool place to go on a vacation.
- You associate the word "saw" with diamonds instead of "wood".
- You begin wondering what a complete set of the Mineralogical Record is worth.
- When you find out, you actually consider paying it.
- You've fabricated a backpack for your dog.
- You've installed more than one mineralogical database program on your computer.
- The baggage handlers at the airport know you by name and refuse to help with your luggage.
- You receive a letter from the county informing you a landfill permit is required to put anymore rocks on your property.
- Your Internet home page has pictures of your rocks.
- You still think pet rocks are a pretty neat idea.
- You get excited when you discover a hardware store that stocks 16 pound sledge hammers and 5 foot long pry bars.
- You decide not to get married because you'd rather keep the rock.



Rock Trails

Sandy Gerhart, Editor
704 W. US Hwy 223, #205
Adrian, MI 49221

Meetings are held the
first Sunday of each month
at 2:00 PM
at 201 W. Main St.,
Morenci, MI 49256

