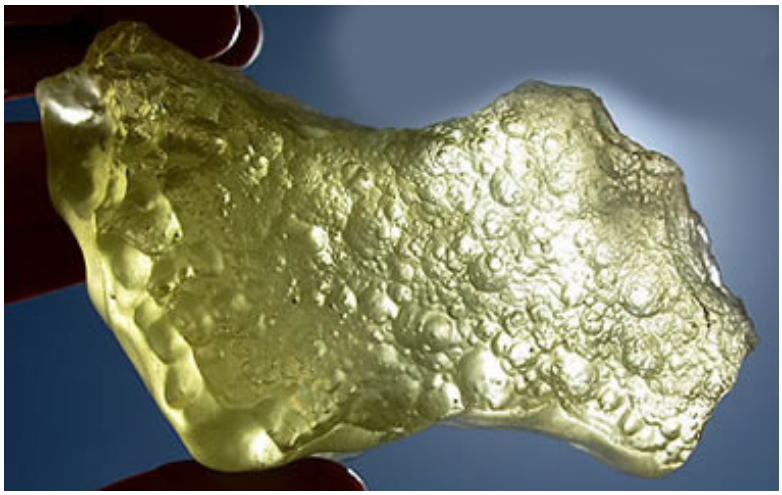
ROCK TRAILS

Mineraloids



Mineraloids

Newsletter of the StateLine Gem and Mineral Society

VOLUME 55
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JULY 2015

In This Issue:

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Secretary: Patricia Baier-Hay, 517 263-8585
Treasurer: Doris Brzezicki, 517 263-1669
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Second Year Director: Kelly Cleveland, 419 882-8515
Third Year Director: Charles Swanson, 517 759-0337
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Publicity: Edmund Jarzembski, 419 237-2000
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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

Wow, what a busy month! Started out with the Midwest convention. That was great, for those who haven't already heard! Glenda and I were introduced by our state director and that was followed by good things said by Steve from the Toledo Club. The show was great also.
Then, following that was our show, which was great ! We had a good turnout, and a big thanks to all that made it work! Then, at the end of the month was our field trip to Bedford and the show at the fairgrounds at Bedford. We made some more good contacts and met old friends. Great times! We had a good turnout, 19! Isn't that great? Brought back enought geodes for all the shows for this year. Our new members had a great time, also!
The next meeting will be on July 12, due to the Fourth of July holiday. We will be going over our show results and the show for the Lenawee Fair

Treasurer's Statement

Those of you who were able to attend our show know it was a great success!
This year, we were able to obtain some Mexican geodes and they were very popular. We will discuss the possibility of purchasing more before some of our fall shows. Glenda looked into the prices for different size geodes, and the club needs to decide what would be best financially.
This was my last year as show chairperson or co-chairperson. Sherm was co-chair this year and learned some of the different aspects of the position. There is a “Show Guide” that outlines the dates and actions taken over the past years. I know how much work is involved and feel that it would be best if Sherm had a co-chair to assume some of the responsibility and also it is always better to have ideas shared and support given. I will be available for consultation, but honestly feel it is time for new ideas.
We had many new members join during the show. Please add them to your membership list.

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rhauter@wcomco.net				
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Chuck & Pat Vanderhorst	16537 US Hwy 127	Alvordton, OH	43501	(419) 237-2521
Jan Wyse	3313 Co Rd 21	Archbold, OH	43502	(419) 551-3220
wysenup@bright.net				

Doris Brzezicki, Treasurer

Secretary's Scoop

There was an informal meeting after the club's annual gem and mineral show on May 31, 2015, conducted by president Sherm. Doris made a motion to accept the secretary's report as printed in the newsletter. The motion was seconded by Richard B. and passed with all in favor.

Treasurer's report - Doris thanked everyone for all of their hard work in making the show a success. Clubhouse rent has not been paid in advance due to using the club's funds to finance the show and scholarship. However, as soon as she can get the proceeds from the show into the bank (credit union), she plans to pay the upcoming bills.

Show attendance was 461 and there seemed to be a lot of discount flyers used this year. Most areas did well and the geodes did exceptionally well. Doris mentioned that this would be her last year in the position of show chairperson. She plans to continue as club treasurer but noted that recent health problems for her and her husband have diminished their ability to do as much as they have been doing for so many years. Doris also noted that Glenda had ordered about $124.00 worth of advertisement for the show but since it had not been included in the treasurer's annual budget, the club would have to vote to pay the additional advertisement fees. Doris made a motion to have the club pay the additional advertising fees and Phyllis seconded. The motion passed with all in favor.

Sherm mentioned that the show was a lot of work and he was grateful to all who helped with the show. He suggested that we may consider raising the admission fee since we seem to be charging much less than other shows of a similar nature. He thought we could look into it.

Doris and Sherm talked to our landlord, Larry, about renting the additional room for clubhouse use. He wanted to charge an additional $75.00/month for the room instead of the $50.00 he quoted but Doris and Sherm negotiated the amount down to $60.00/month. Larry stated that the building needs the water softener to remove the sulfur smell from the water and that is why he wanted more in rent money. Starting July 1st the clubhouse rent will be $410.00/month. Richard made a motion to accept the treasurer's report, seconded by Phyllis, and it passed with all in favor.

Sherm reported that the Midwest Federation meeting in Chicago was very interesting and that he and Glenda met a lot of nice people. He also enjoyed the show very much and got to visit some of the local sites.

Doris mentioned that we have gained more new members as a result of the show.

Sherm stated that since the first Sunday in July is a holiday weekend he was going to **change the meeting date to JULY 12TH** which is the following Sunday.

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Old Business – Glenda mentioned that she spoke with Denise to make arrangements for the Bedford Indiana field trip. Quite a few members were planning to go and collect geodes. Richard B. mentioned that he plans to meet members at the Golden Corral for breakfast. Glenda has made arrangements with the Rosemount Motel, 1923 M Street, Bedford, IN. Phone (812) 275-5953 for all who told her they were staying overnight. She said that our club has pretty much taken over almost all of the rooms.

Sandy Cline suggested that we put the show information on the club's website. He also plans to talk to a friend who has a dinosaur to put up as an attraction for the show.

Richard B. made a motion to adjourn, seconded by Judy and passed with all in favor.

Mineraloids

What Are Mineraloids?

A mineraloid is a naturally occurring, inorganic solid that does not exhibit crystallinity. It may have the outward appearance of a mineral, but it does not have the “ordered atomic structure” required to meet the definition of a mineral. Some mineraloids also lack the “definite chemical composition” required to be a mineral.

To be considered a mineral, a material must meet the following five requirements:

1) naturally occurring
2) inorganic
3) solid
4) ordered atomic structure
5) definite chemical composition (can vary within a limited range)

Minerals are “crystalline.” In other words, they have an ordered atomic structure. In contrast, mineraloids are “amorphous.” This means that their internal atomic structure is not ordered.

Without the ordered atomic structure, mineraloids never produce well-formed crystals. They also do not exhibit the property of cleavage because they lack internal planes of weakness.

Examples of Mineraloids

There are a number of familiar materials that can be classified as mineraloids. For example, opal is an amorphous hydrated silica with a chemical composition of $SiO_2.nH_2O$. The “n” in its formula indicates that the amount of water is variable. Therefore, opal is a mineraloid.

Obsidian and pumice are igneous rocks that solidified so rapidly from a melt that their atoms were unable to move into an ordered atomic structure. Instead, they rapidly formed a random network of atoms known as a “glass.” Obsidian and pumice are amorphous, and their compositions can vary dramatically from one location to another and from one volcanic eruption to the next. Obsidian and pumice are also mineraloids.

Mineraloids from the Sky

Tektites and moldavites are varieties of natural glass that formed from the impact of an asteroid or comet. These objects struck the earth at hypervelocity and the force of their impact produced a tremendous amount of heat energy. The explosion that occurred upon impact flash-melted the target rock and produced a shower of molten material over thousands to millions of square miles. The molten material’s temperature dropped so quickly as it flew through the air that the melts solidified without forming crystals.

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Tektite (shown to the left)
Tektites are pieces of black glass formed by an impact somewhere between Australia and Southeast Asia about 800,000 years ago. Millions of tektites, ranging from sand-size grains to fist-size nodules, have been found in that area. Their surfaces are often marked with the same surface regmaglypts seen on iron meteorites.

Moldavite
Moldavite is another type of impact glass, which was formed about 15 million years ago when an asteroid struck the area that is now Eastern Europe. The green glass is now found and valued by collectors. Transparent pieces with good clarity are sometimes cut as a gem.

Libyan desert glass is a similar material thought to be caused by an impact in a sandy area. Fulgurite and the associated material known as lechatelierite are produced when lightning strikes the earth in a sandy environment. These strikes instantly melt the sand, which then rapidly solidifies as amorphous silica. These materials are rapidly cooled glassy mineraloids.

Desert Glass
Libyan Desert Glass is a yellow glass found scattered over the desert near the border between Egypt and Libya. It is believed to have formed in the seconds after an asteroid impact about 29 million years ago. Large amounts of desert surface were flash melted by the heat of the impact and scattered over the surrounding land.

Mineraloid-forming Environments

Most mineraloids form at the low temperatures and low pressures found at Earth's surface and in shallow subsurface environments. Materials such as opal, psilomelane, chrysocolla, limonite, and a wide variety of supergene materials crystallize from gels or colloids in the shallow subsurface. Many of these materials will eventually transform into minerals with time, heat, or pressure. These low-temperature mineraloids often have a mammillary (smoothly rounded or hemispherical), botryoidal (grape-like clusters), pisolitic (pea-like clusters), or stalactitic (icicle-like) habit.

Can Liquids Be Mineraloids?

Water and mercury are often classified as mineraloids. They are the only two natural inorganic substances that have a definite chemical composition and are liquids at room temperature. They are also the only two liquids that crystallize into minerals within the range of temperatures and pressures encountered at Earth's surface. Water crystallizes into the mineral "water ice" when cooled to 0 degrees C. Mercury crystallizes into solid mercury at -38.8 degrees C. Due to the fact that they crystallize into minerals, some mineralogists include water and mercury in the mineraloids group.

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Organic Mineraloids?

If you read information about mineraloids written by a variety of authors, you will discover that some authors include organic materials, such as amber and jet, in their list of mineraloids. Some mineralogists agree with such classifications, but others feel this stretches the definition of a mineraloid too far.

Amber is a fossil plant resin found in sediments and sedimentary rocks in many parts of the world. It is hard, brittle, translucent to transparent, and is often cut as a gemstone. It has the appearance of a mineral, but lacks an ordered internal structure and lacks a definite chemical composition. Furthermore, it is organic. It fails three of the five tests for being a mineral. Should it be called a “mineraloid”?

Jet is a rare type of dark black coal. It has a smooth texture that accepts a bright polish, which is why it is often cut as a gemstone. It has the outward appearance of a mineral but lacks a crystalline structure and a definite chemical composition. It is also organic. Should it be called a “mineraloid”?

A number of very tiny organisms, such as diatoms and radiolarians, produce a thin shell of amorphous silica known as a “test.” When these organisms die, their tests sink to the bottom. When the tests are the dominant material that accumulates, the sediment is known as “ooze.” If buried and lithified, the ooze can transform into rocks such as diatomite and radiolarite. If they are composed of amorphous silica, should they be called mineraloids?

http://geology.com/minerals/mineraloids/

Bench Tips

by Brad Smith

SOLDERING PRONGS

I often use prongs to hold an irregular cab or other object on rings and pendants. But prongs can be a little tricky to solder. You have to find some way to hold them all upright while soldering, and the simple butt joint that looks strong sometimes breaks when you start to bend the prong over the stone. There's nothing worse than having a prong break off when you're setting the stone *#~*!

I solved both problems with one little trick. It holds the prongs in position while soldering and it gives you a stronger joint at the same time.

Locate and center punch the position for each prong. Then drill holes a little smaller than your prong wire. Sand a small taper on the ends of your prong wires and stand them up in the holes. The wires support themselves, soldering is easy, and the joint is stronger because of the increased soldering area.

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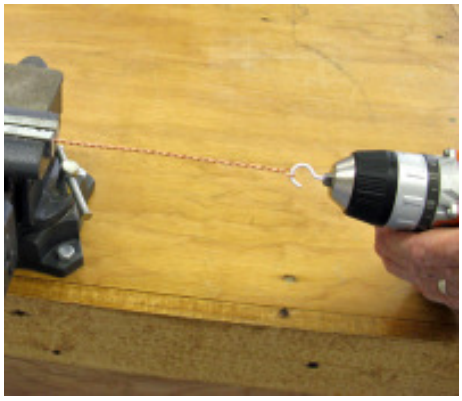
TWISTING WIRE

Twisting wire can be done with an old hand drill but goes much faster with a power tool. My preference is to use a screw gun, although a Foredom should do well.



Just make a little hook out of coat hanger wire (or use a screw-in cup hook) and chuck it up in your screw gun. Grip the free ends of the wire in a vice and slip the looped end onto your hook. Keep a little tension on the wires as you twist.

Note that a power drill is too fast a tool for this unless you have one with variable speed.

More Bench Tips by Brad Smith are at facebook.com/BenchTips/
or see the book "Bench Tips for Jewelry Making" on Amazon

Get all 101 of Brad's bench tips in "Bench Tips for Jewelry Making" on Amazon
www.amazon.com/dp/0988285800/

Upcoming Events

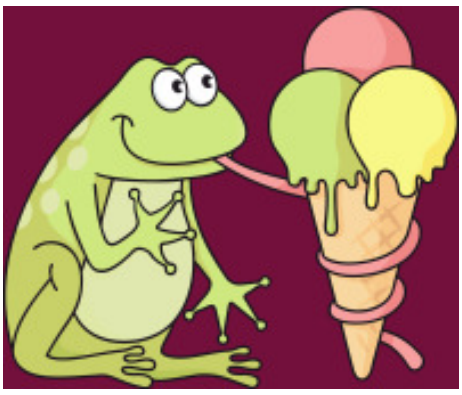
Sunday, July 12 2015
State Line Gem & Mineral Society
monthly meeting
2:00 p.m.
201 W. Main St.
Morenci, MI 49256

Sept. 18, 19, 20
Holland, MI.
46th ANNUAL ROCK, GEM,
FOSSIL & JEWELRY SHOW
"MASTODON: MICHIGAN'S STATE FOSSIL"
TULIP CITY GEM & MINERAL CLUB
FRI 9am-8pm, SAT 9am-7pm, SUN 11am-5pm.
Holland Civic Center
150 West 8th St.

August 1, 2015
Ishpeming, MI
ISHPEMING ROCK & MINERAL CLUB'S
40th ANNUAL GEM & MINERAL SHOW
9:30 a.m - 4:30 p.m.
Ishpeming Elks Club Hall
597 Lake Shore Dr.
Ishpeming, MI
Free Admission

Sept. 19th & 20th
HOWELL, MI.
GEM, MINERAL & JEWELRY SHOW
LIVINGSTON GEM & MINERAL SOCIETY
Sat 10 am - 6 pm; Sun 10 am - 4 pm.
Hartland Consolidated School
9525 Highland Rd.
Howell, MI

August 7 - 9, 2014
Houghton, MI
ANNUAL SHOW,
COPPER COUNTRY ROCK & MINERAL CLUB
Houghton Elementary School,
corner of Jacker Ave & Bridge St.
Fri. 1pm - 8pm, Sat. 10am - 6pm,
Sun. 11am - 3pm



Rock Trails

Sandy Gerhart, Editor
704 W. US 223, #205
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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