

ROCK TRAILS



Newsletter of the StateLine Gem and Mineral Society

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2016 Officers and Directors

President: Sherman Kardatzke, 517 673-5487
Vice President: Glenda Gafner, 517 403-6310
Secretary: Heidi Storehalder, 419 261-6451
Treasurer: Doris Brzezicki, 269 267-1123
Past President: Edmund Jarzembki, 419 237-2000
First Year Director: Jan Hauter, 517 286-6971
Second Year Director: Carl Mulholland, 517 539-2037
Third Year Director: Frank Kramic, 517 458-7191
Show Chairman: Doris Brzezicki, 269 267-1123
Publicity: Edmund Jarzembki, 419 237-2000
Sunshine: Catherine Choske, 517 423-3572
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Richard Brzezicki, 269 267-7666
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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



Everyone has been busy for the last two months; shows to go to, shows to do, and field trips to go on. Glenda and I went to South Bend for the Midwest convention. Fulton County Fair was another success, along with Art-i-licious. Thanks to all of you that helped! We couldn't have had a great success without all that helped. Thanks, again!

There are two more shows yet to do: Clinton and AppleUmpkin. This will give us enough funds to get us through until our show.

After the shows are over, I will be going to the clubhouse some evenings and weekends for those that are interested in using the equipment and, of course, training too.

The next meeting has been postponed until **Oct 6 at 6:30 p.m.** This has been postponed due to several of us going to the show in Brown County, Indiana and the show in Indianapolis.

Secretary's Scoop

September 11, 2016

President Sherm Kardatzki called the meeting to order, with Richard B. giving the invocation. The pledge of Allegiance followed.

We had some new members present and introductions were made.

There was no newsletter for last month, so the Secretary's report for August was presented in person at the meeting. Bill Sipes made a motion to accept it, seconded by Jan and it passed with all in favor.

Doris gave the Treasurer's report, stating that she had paid our rent and our monthly bills to Consumer's and deposited our income from the Fulton County Fair. Phyllis made a motion to accept the Treasurer's report, which was seconded by Judy. It passed with all in favor.

Doris also informed us that we have a new landlord and that there would no rise in rent. It was also brought up that it was in our contract that State Line would be informed first if the building ever went up for sale and that didn't happen. There was a lot of discussion that followed, including looking into and gathering information about other locations belonging to our former landlord that he had informed us of. It was also discussed whether or not to have a legal written response over the breach in contract or not, but Doris felt that it would be better to handle this face to face and informally.

Sherm thanked all the members who volunteered at Fulton County Fair and Richard B. thanked Carl and Linda Sharkey for fixing up our beloved lion.

Bill informed everyone that a member from the Morenci Sportsman Club stopped by our booth at the Fulton County Fair to thank us for our participation during their 'Kids Day' back in the beginning of July.



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Doris received thank you cards for everyone who demonstrated at the Weber Center back in April. They also received gift cards to the Governor Crowell Tea Room, which Doris handed out after the meeting.

Plans for Art-i-licious in downtown Adrian were discussed and a list of volunteers was made. Clinton Fall Festival was also discussed, as was Appleumpkin.

AppleUmpkin was discovered to correspond with the first Sunday of October, so **our next meeting has been rescheduled for Thursday October 6th at 6:30pm**. There had been a vote between having it on a Tuesday or a Thursday and Thursday was decided upon because it would work better for most of our members to be able to attend.

Doris informed members that she had received an email from some geologists asking for donations of large Michigan rock specimens. Sherm informed her that we didn't have anything as large as what they were asking for.

Richard made the motion to adjourn and was seconded by Jan. It passed with all in favor.

Respectfully submitted,
~Heidi Storehalder~

Please add these new members to your Membership list:

Henry Porter 15351 Windemere St. Southgate, MI 48195 (313)694-7642

Charles & Patricia Vanderhorst 16537 U.S. Hwy 127 Alvordton, OH 43501 (440)681-0242
daddyer63@gmail.com

Aaron & Ginny Delawter 6515 Morgan Rd Osseo, MI 49266 (517)523-3636
ADelawter@Frontiernet.net



Hoodoos

A hoodoo (also called a tent rock, fairy chimney, and earth pyramid) is a tall, thin spire of rock that protrudes from the bottom of an arid drainage basin or badland. Hoodoos, which may range from 4.9 to 147.6 ft, typically consist of relatively soft rock topped by harder, less easily eroded stone that protects each column from the elements. They generally form within sedimentary rock and volcanic rock formations.

Hoodoos are found mainly in the desert in dry, hot areas. In common usage, the difference between hoodoos and pinnacles (or spires) is that hoodoos have a variable thickness often described as having a “totem pole-shaped body”. A spire, on the other hand, has a smoother profile or uniform thickness that tapers from the ground upward.

Hoodoos range in size from the height of an average human to heights exceeding a 10-story building. Hoodoo shapes are affected by the erosional patterns of alternating hard and softer rock layers. Minerals deposited within different rock types cause hoodoos to have different colors throughout their height.

Hoodoos are commonly found in the High Plateaus region of the Colorado Plateau and in the Badlands regions of the Northern Great Plains (both in North America). While hoodoos are scattered throughout these areas, nowhere in the world are they as abundant as in the northern section of Bryce Canyon National Park, located in the U.S. state of Utah. They are also very prominent a few hundred miles away at Goblin Valley State Park on the eastern side of the San Rafael Swell.



Hoodoos in Bryce Canyon, Utah

The hoodoo stones on the northern coast of Taiwan are unusual for their coastal setting. The stones formed as the seabed rose rapidly out of the ocean during the Miocene epoch. Efforts have been made to slow the erosion in the case of iconic specimens in Wanli.

Hoodoos in Drumheller, Alberta, are a distinctive feature that continues to attract thousands of visitors each year. The sediments comprising these hoodoos formed between 70 and 75 million years ago during the Cretaceous Period as clay and sand sediments from the Horseshoe Canyon Formation were deposited. These hoodoos are able to maintain a unique mushroom-like appearance as the underlying base erodes at a faster rate compared to the capstones, a rate of nearly one centimeter per year, faster than most geologic structures.

Hoodoos typically form in areas where a thick layer of a relatively soft rock, such as mudstone, poorly cemented sandstone or tuff (consolidated volcanic ash), is covered by a thin layer of hard rock, such as well-cemented sandstone, limestone or basalt. In glaciated mountainous valleys the soft eroded material may be glacial till with the protective capstones being large boulders in the till. Over time, cracks in the resistant layer allow the much softer rock beneath to be eroded and washed away.

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Hoodoos,

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Hoodoos form where a small cap of the resistant layer remains, and protects a cone of the underlying softer layer from erosion. Further erosion of the soft layer causes the cap to be undercut, eventually falling off, and the remaining cone is then quickly eroded.

Typically, hoodoos form from two weathering processes that continuously work together in eroding the edges of a rock formation known as a fin. The primary weathering force at Bryce Canyon (as one example) is frost wedging. The hoodoos at Bryce Canyon experience over 200 freeze/thaw cycles each year. In the winter, melting snow, in the form of water, seeps into the cracks and then freezes at night. When water freezes it expands by almost 10%, pries open the cracks bit by bit, making them even wider, much like the way a pothole forms in a paved road.

In addition to frost wedging, rain also sculpts these hoodoos. In most places today, the rainwater is slightly acidic, which lets the weak carbonic acid slowly dissolve limestone grain by grain. It is this process that rounds the edges of hoodoos and gives them their lumpy and bulging profiles. Where internal mudstone and siltstone layers interrupt the limestone, you can expect the rock to be more resistant to the chemical weathering because of the comparative lack of limestone. Many of the more durable hoodoos are capped with a special kind of magnesium-rich limestone called dolomite. Dolomite, being fortified by the mineral magnesium, dissolves at a much slower rate, and consequently protects the weaker limestone underneath it. Rain is also the chief source of erosion (the actual removal of the debris). In the summer, monsoon type rainstorms travel through the Bryce Canyon region bringing short duration high intensity rain.



Hoodoos in Drumheller, Alberta, Canada



Bench Tips

by Brad Smith

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

REMOVING SOLDER FROM A BEZEL



Sometimes when you solder a bezel to a base plate, you end up with excess solder that needs to be removed before setting the stone. My choice of tool for this is called an "Inverse Cone" bur used in a rotary tool or flexshaft. It cuts on both the bottom and the side and is shaped so that there's less chance of cutting into the bezel wall than if you used the more common cylinder bur shape. I find the 2 mm size useful for almost any bezel.

TESTING FOR SILVER

Often you need to identify some of those unknown "silvery" pieces in the bottom of the toolbox or some piece of old jewelry. Is it silver or something else?

Of course, if you need to know exactly what you have, it's best to send your metals off for refining. But inexpensive silver testing solutions can be used to help distinguish higher silver content alloys from alloys that have the same appearance but with little to no silver content, like German Silver or Nickel.

I purchased a half-ounce bottle of JSP Silver Testing Solution #GT41. It's not a rigorous analytic test, but it lets you know if you're on the right track. And it's inexpensive. Mine was only \$3.

With a fresh solution, you have an instant reaction after applying it to the metal being tested. The procedure is simple - as you apply a small drop, look for a color change. Note that the acid will leave a slight mark, so choose a spot that is out of the way or will be easy to polish.

If you suspect the object is silver plated, you should file a little notch somewhere inconspicuous to expose what metal is below the surface. Otherwise, all you test will be the surface plating.

Here's the reaction I got when testing various materials:

Fine silver	Red/Orange
Sterling silver	Brick Red
80% silver 20% copper	Dark red changing to gray
Brass	Yellow changing to blue
Nickel	Gray-green
Copper	Yellow changing to blue
Steel	Black
Stainless Steel	No color change

Caution - If you do any of this testing, know that you are handling a reasonably strong acid. The GT41 label says it includes nitric acid and potassium dichromate.

Wear safety glasses.

Do not get any testing solution on your skin.

Use a solution of baking soda and water to neutralize acid.

Wash and clean up well when you're done.

Upcoming Events



Thursday, October 6, 2016

State Line Gem & Mineral Society
monthly meeting & induction of officers

6:30 p.m

201 W. Main St.
Morenci, MI 49256

Oct. 1 - 2, 2016

Belleville MI

Midwest Mineralogical & Lapidary
Society SuperSwap
County Fairgrounds, 10871 Quirk Road,
Belleville, MI
Sat 10-5, Sun 10-4

Oct. 14 -16, 2016

Fort Wayne IN

Three Rivers Gem & Mineral Society
Allen County Fairgrounds
2726 Carroll Road
Fort Wayne, IN
Fri & Sat 10-6, Sun 11-5

Oct. 8 - 9, 2016

Tecumseh MI

AppleUmpkin Festival
Sat. 9-6, Sun. 10-5

Oct. 15 -16, 2016

Clio MI

Flint Rock and Gem Club
Carter Middle School,
300 Rogers Lodge Dr.
Clio, MI
Sat & Sun 10-5

Oct. 14 - 16, 2016

Warren MI

Michigan Mineralogical Society
Macomb Sports & Expo Center, Building P,
14500 E. 12 Mile Road,
Warren, MI
Fri 9-6, Sat 10-7, Sun 11-5

Oct. 21 - 23, 2016

Mason MI

Central Michigan Lapidary & Mineral Society
Ingham County Fairgrounds, Main Arena
Mason, MI
Fri 6-9, Sat 10-6, Sun 11-5





Rock Trails

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Adrian, MI 49221

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