ROCK TRAILS



Newsletter of the StateLine Gem and Mineral Society

VOLUME 58 ISSUE V MAY 2018

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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 crazy month! Have been crazy busy.

For all of you that missed the work Sat., boy, you missed a lot of fun! Richard B and Linda M on the sewing machine, Ed cutting cloth, Bill and Phyllis cutting corners, young Bill and Mary, Jan, Doris, Linda H and myself stringing bags - we all did over 300 bags! Thanks, everyone! This is why we have a great club! Next will be a stuffing party. Anyone up for it? We will talk about it at the next meeting.

Also, this will be the final meeting before our show.

For those who didn't go to Jackson, you missed a great show this weekend. I'm in Troy Ohio now. See everyone at the meeting.

Oh, for those who haven't heard, Heidi has stepped down as secretary, so anyone interested let us know. Thanks, everyone, for everyone's hard work!

Sherm
Secretary's report will be given at the meeting.







Photos courtesy of Doris and Richard Brzezicki

Discovered by chance, the secret Mexican crystal caves big enough to drive a car through

Discovered by two miners looking for lead, these amazing crystal-lined caves could be mistaken for Superman's ethereal Arctic lair. These stunning white beams of gypsum have been growing at a snail's pace for hundreds of thousands of years in caves below Naica in Mexico.



Ten years after the amazing discovery, scientists are petitioning the Mexican government to claim for Unesco World Heritage status to protect the unique formations for future generations.

'They're really one of the Wonders of the World,' said Juanma Garcia Ruiz, a geologist from Spain's Instituto Andaluz de Las Ciencias de la Tierra, who has studied at the mine.

These stunning images, which were taken by world-renowned Spanish photographer Javier Trueba, show the sheer size of the crystals, some of which measure up to 11 meters.

Growing slowly over time, it is still unclear why the formations fill the caves at such haphazard angles.

The huge mines at Naica have been excavated for years, but in 1975 a massive area was drained so mining operations could take place. When the water disappeared the crystals stopped growing, however, it was more than 25 years before two miners stumbled across the vast Crystal Caves and the incredible collection of gypsum was discovered.

The formation of the beams 290 meters below the surface, occurred when super-heated water began cooling and became saturated with gypsum. Over time, crystals formed in the water.

One of the major problems still facing scientists wishing to study below the ground at Naica is the heat. A hot spring located close to the Crystal Caves means the temperature is too hot for people to remain in the crystal chamber for longer than ten minutes at a time. Fortunately, other sections of the mine are air-conditioned.

Professor Garcia Ruiz said: 'If you go down into the mines you can't survive for more than ten minutes. The heat is extreme. But the mine itself is very big, there is a huge number of chambers down there and you can drive a car through it.'

Soon, Professor Garcia Ruiz is planning to return to Naica and continue his studies, however, he is calling for more to be done to ensure the crystals get the proper care they deserve. 'The crystals need to be preserved much better. 'They really are something amazing and I think there is still people in Mexico who don't know how important it is to preserve them as much as possible. I'm trying to convince the people of Mexico to claim Naica for Unesco World Heritage site. Naica is very unique and the chance of having another one on the planet is very low.'



Bench Tips

by Brad Smith

POLISHING WHEELS

In the finishing sequence there's a step called pre-polishing, between sanding and buffing, and one of the most effective tools I've found to help here is the little silicone wheels used in a Foredom or Dremel. They come in several different abrasive levels and several different shapes. The wheels are color coded to denote their abrasive level. Different shapes (coin, knife, cylinder, point, etc) are available to match the geometry of the area being cleaned up.

For a starter, I'd suggest a medium, a fine, and an extra fine wheel in both the coin shape and the knife-edge shape. Be sure to get a few extra mandrels so you'll have one of each wheel shape mounted and ready to go.



The thicker coin shapes are particularly handy. Cylinder shapes are nice for doing the inside of rings, and knife-edge shapes quickly clean up the solder joint around the outside base of your bezels.

Most jewelry catalogs carry these wheels, but often the color codes don't match between different manufacturers.

RESHAPING SILICONE WHEELS

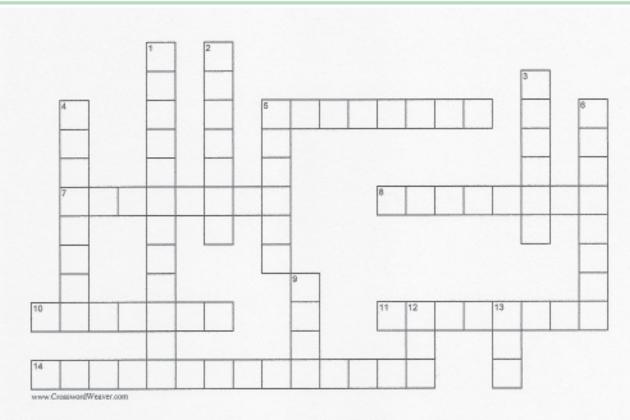
Silicone polishing wheels in the Dremel or Foredom are a great time saver, but after using them a bit they often need to be reshaped. This is particularly true with the knife-edge wheels.

The natural thought is to grab one of your files and hold it up against the rotating wheel to reshape it. But this gives you a problem. The grinding grit in the silicone wheel is much harder than steel, meaning that you end up grinding down the teeth of your file.

The best way to reshape your polishing wheels is to use a diamond file or a separating disk. If you don't have one and must use a steel file, I sacrifice the area of the file that is closest to the handle. That's an area which is not used in normal bench work.



For more tips or to learn new jewelry skills see Amazon.com/author/bradfordsmith



ACROSS

- 5 member of the mineral group that has silicon and oxygen in its crystal structure
- 7 property of minerals that break with smooth, flat surfaces
- 8 resistance of a mineral to being scratched
- 10 mass divided by volume
- 11 to dispense or disappear in solution
- 14 when particles dissolved in a liquid solidify to form crystals

DOWN

- 1 scientist who studies the distribution of minerals, mineral properties, and their uses.
- 2 solid chemical substance with a regular, repeating
- 3 way a mineral absorbs or reflects light at its surface
- 4 property of minerals that break to form uneven surfaces
- 5 color of a mineral in powdered form
- 6 rare and attractive mineral that can be worn as jewerly
- 9 molten rock that erupts onto earth's surface
- 12 an atom or group or atoms with an electric charge
- 13 rock that contains high concentrations of a desired substance, such as a metal, and can be mined for profit

Solution on page 7

Upcoming Events

Sunday, May 6, 2018
State Line Gem & Mineral Society

monthly meeting 2:00 p.m.

201 W. Main St. Morenci, MI 49256

May 4-6, 2018 Kalamazoo, MI

Kalamazoo Geological and Mineral Society's
Annual Show
Kalamazoo County Expo Center
2900 Lake St.
Kalamazoo.

May12-13, 2018 Toledo, OH

Toledo Gem &Rockhound Club Rock/Jewelry Open House. Sat 9:30 am - 4:30 pm; Sun noon - 4 pm. St. James Lutheran Church Gym, 4727 West Sylvania Ave, Toledo

May 19-20, 2018 St. Joseph, MI

Blossomland Gem and Mineral Society's Annual Show Lake Michigan Catholic Elementary School 3165 Washington Ave St. Joseph.



June 1-3, 2018 Wauseon, OH

Stateline Gem & Mineral Society Annual Show.
Fri noon - 6 pm; Sat 10 am - 6 pm;
Sun 11 am - 4 pm.
Fulton County Fairgrounds
8514 SR-108
Wauseon, OH

June 9-10, 2018 Mansfield, OH

Richland Lithic & Lapidary Society
Annual Show
Sat 10 am - 6 pm; Sun 11 am - 5 pm
Arts & Crafts Building
Richland County Fairgrounds
750 N Home Rd.
Mansfield OH

June 22-24, 2018 Bedford, IN

Lawrence County Rock Club Annual Show.
Fri 10 am - 6:30 pm; Sat 9 am - 6:30 pm;
Sun 10 am - 4 pm.
Lawrence County Fairgrounds
US Hwy 50
Bedford IN





MOTHER' S DAY

Rock Trails

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

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