ROCK TRAILS

Newsletter of the StateLine Gem and Mineral Society

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In This Issue:

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Treasurer: Doris Brzezicki, 269 267-1123
Past President: Edmund Jarzembski, 419 237-2000
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Second Year Director: Carl Mulholland, 517 539-2037
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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

Secretary's Scoop

President Sherm Kardatzke called the meeting to order and Richard B. gave the invocation. The pledge of Allegiance followed.

Secretary's Report:
The secretary's report was given in person at the meeting. Phyllis made a motion to accept it and was seconded by Richard B. It passed with all in favor.

Treasurer's Report:
Doris presented her monthly report including expenses for our rent, Consumer's, our booth at Fulton Co. Fair, a canopy for club use, Internet advertising and use of the kitchen for our annual show, as well as the order of Mexican geodes that was decided upon during the previous meeting. She also informed us of deposits she had made from geode and silent auction sales. Phyllis made a motion to accept the Treasurer's report. It was seconded by Judy and it passed with all in favor.

Sherm informed everyone that the canopy and its weights had arrived, as had our latest order of geodes.

Our Show:
Judy reminded members that it is that time of year for selling raffle tickets for our show. Ed would put out the big signs advertising it and a group of members agreed to organize items for the silent auction. Jan informed us that she had put out a lot of flyers, and Phyllis and Judy volunteered to assist by putting up flyers in other places as well. Judy also offered to work on the display for member sales.

Setup for the show will be Wednesday May 31 at the club at 10 am for loading all the supplies, followed by the actual setting up at the fairgrounds, as well as cleanup in the kitchen. Dealer setup will be on Thursday from 12-8 pm and will include the annual supper for them. Cooking in the kitchen for the show will also take place on Thursday.

Glenda and Sherm informed us that all the booths for the show had been booked and that we would be in need of more tables. Many members volunteered to bring tables, including: Carl, Sherm, Nancy, Ed, Glenda, Doris and Richard B., and myself.

Glenda was happy to announce that the audience specific internet promotion that had been discussed in the previous month's meeting seemed to be working because she googled our club and our show and we came up in her searches. We hadn't shown up in any of her previous searches. Glenda had also shared our flyer on other publications, as well as on Facebook. Sherm handled the radio advertisements.

It was brought up that the Morrocan and the Mexican geodes need to be weighed and it was decided that a group of members would get together at noon on the following Saturday at the clubhouse to weigh them.

Upcoming Trips:
The trip to Lake Superior after agates, copper and garnets is scheduled to last from June 9th to June 14th, with attending members free to choose how long they stay, as well as which days. Glenda informed

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us that 10 adults and at least two junior members would be staying in the cabin we are renting on the beach. She also informed those staying in the cabin what their share of the expenses would be, and some members had paid already.

The annual trip to Bedford, Indiana for the rock show and to collect geodes for club sales will be the 23rd, 24th, and 25th of June. Glenda is planning side trips to more places this year and had made reservations at the motel for the members who had planned on attending.

Scholarship:
Our club has received 3 applications for our college scholarship so far. Glenda, along with Sherm and Judy, who are part of the committee stated that they would wait a week after the deadline to decide who would get the scholarship. Linda M. had some questions regarding what the scholarship could be used for and if it would disqualify the student from applying to some other scholarships with strict guidelines. Richard B. believes that we are encouraging an interest in geology and shouldn't get involved in the politics of scholarships. The possibility of expanding the borders to other counties was brought up and Doris B. informed everyone that it could be amended. It was decided to bring it up at a later meeting for more discussion.

Doris B. received an email about Art-a-Licious applications that informed her that they would be submitted via website this year. She wanted to know how many booths she should apply for and Glenda informed her that 3 would be needed again this year. Richard B. wondered if there would be a fee to use the offical website and Glenda confirmed that the fee per application submitted would be approximetely $10-35. Richard made a motion to pay up to $35 per application for 3 booths and it was seconded by Glenda. It passed with no objections.

Phyllis and Bill S. had presented their donation to the club to Doris B. and it was agreed that it would go towards purchasing another canopy for fundraisers and shows. Richard made the motion and was seconded by Jan. It passed with all in favor.

Name tags and shirts for members will be green polo shirts with the Stateline logo as well as names of the members. Miner Al shirts with our mascot will also be available for order. Kid sizes are also available. Interested members are to contact Glenda for more information.

Glenda made a motion to adjourn and it was seconded by Linda M. It passed with all in favor.

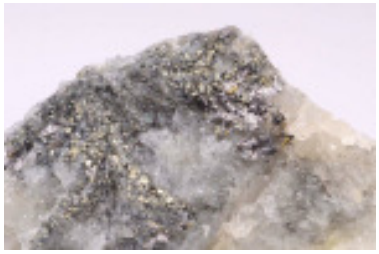
Respectfully submitted,
~Heidi Storehalder

Please add the following to you membership list:
Gregory M. Ottinger 201 W Main St, Apt 2, Morenci, MI 49256

10 Most Deadly Rocks and Minerals

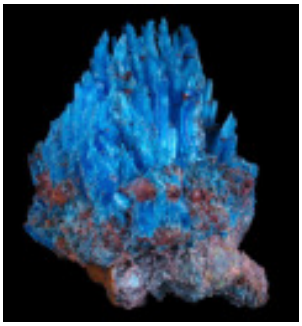
We often wonder if the Earth beneath our feet could swallow us up. The truth is more insidious. Drop that rock you just picked up . . . you could get poisoned. This list details the ten most toxic and potentially deadly minerals that crystalize in the Earth's rocks, presenting a dangerously deceptive array of stony beauty. These rocks don't have to be thrown to hurt you.

10 – Coloradoite



Coloradoite is a recently discovered crystalline mineral originating in magma veins. The mineral is a mercury telluride compound formed when mercury fuses with tellurium, another extremely toxic and rare metal. Coloradoite therefore poses a doubly toxic threat to anyone daring to handle it. The combination of the two elements poses the risk of serious poisoning if carelessly handled. If heated or chemically altered, deadly vapor and dust is released by this strange mineral. Interestingly, the mineral may be mined for its tellurium content. Tellurium minerals may combine with gold, but were previously not recognized. In a strange twist of fate, the streets of Kalgoorie in Australia were mined in a bizarre gold rush after the realization that gold-bearing tellurides had been used to fill potholes.

9 – Chalcanthite



Seductive blue chalcanthite crystals are composed of copper, combined with sulfur and other elements and water. This arrangement turns copper, which is required by the body but toxic in excess quantities, into an extremely bio-available crystal. In another words, the copper becomes water soluble, and may be assimilated in great quantities by any plant or animal, rapidly weakening it and then killing it by shutting down body processes. Chalcanthite should never be taste tested by amateur scientists for salt content, or an extremely serious overdose of copper could result. Just releasing crystals of the blue mineral has killed entire ponds of algae, and posed great environmental threats. Because of the incredible beauty and rarity of chalcanthite, an enterprise dedicated to growing artificial crystals and passing them off as genuine specimens for sale has developed within the geological community.

8 – Hutchinsonite

Thallium is the dark twin of lead. This thick, greasy metal is similar in atomic mass but even more deadly. Thallium is a rare metal that appears in highly toxic compounds consisting of rather strange combinations of elements. The effects of thallium exposure are even more peculiar, and include loss of hair, serious illness through skin contact and in many cases, death. Hutchinsonite is a hazardous but dramatic mixture of thallium, lead and arsenic. The three poisonous metals form a lethal mineral cocktail that should be handled only with great caution. Hutchinsonite was named after John Hutchinson, a prominent mineralogist from Cambridge University. The mineral is found in mountainous regions of Europe, most frequently in ore deposits.

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7 – Galena

Galena is the principle ore of lead, and forms glistening silver cubes with almost unnaturally perfect shapes. Although lead is normally extremely flexible, the sulfur content of galena makes it extraordinarily brittle and reactive to chemical treatment. Galena is capable of taking an equally heavy toll on workers and amateur researchers who are exposed to it. Contact with specimens may lead to lead dust exposure, while workers in mines face a high risk of poisoning from contact with the mineral and the deadly dusts released through production. Once extracted, the lead content from this mineral poses environmental and health threats during treatment and extraction. Galena has a cubic fracture, and if hit with a hammer, the crystal will shatter into multiple smaller replicas of its original shape.

6 - Asbestos
Chrysotile and Amphibolite

Asbestos is not a manmade product, but one of most terrifying minerals on the planet. Where other minerals act as toxins through their chemistry and sicken victims of accidental poisoning, Asbestos conducts full scale mechanical sabotage on the human lung. Asbestos is a fully natural category of minerals composed of silica the most abundant of Earth's hard elements, iron, sodium and oxygen. Asbestos deposits consist of aggregates of thousands of tiny, fibrous crystals that can become airborne and lodged in the human lung. Carcinogenic effects occur through persistent irritation of the lung tissues, leading to scarring. Asbestos formations can also be uncovered among any set of silica rocks, warranting caution when exploring. Strangely, natural weathering leads to natural distribution of asbestos in Earth's atmosphere. As a result, many humans carry some asbestos fibers in their lungs.

5 – Arsenopyrite

Arsenopyrite is fool's gold, but with a difference. One would not just be a fool to mistake it for gold. Equally foolish would be a decision to pick up this mineral on a hike at a quarry, and proceed to use your hands to put trail mix in your mouth. Arsenopyrite is arsenic iron sulfide, which is the same type of mineral as pyrite (fool's gold, iron sulfide), but with a heavy addition of arsenic. If one attempts to heat or in any way alter the mineral, a strong garlic odor of arsenic will be produced as lethally toxic, corrosive and carcinogenic vapors are released. Just handling the mineral brings one into contact with unstable sulfuric arsenic salts. Interestingly, arsenopyrite may be identified by striking a specimen with a hammer. The powerful garlic odor of arsenic can be briefly detected as the sparks fly.

4 – Torbernite

Torbernite is the mineral from hell. The prism shaped green crystals form as secondary deposits in granitic rocks, and are composed of uranium. Formed through a complex reaction between phosphorous,

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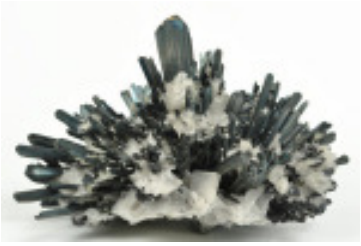
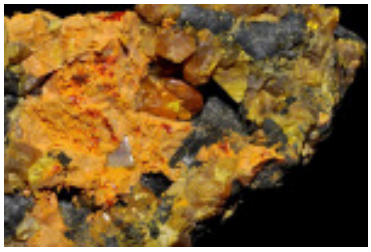
copper, water and uranium, the stunning crystal displays have seduced many mineral collectors into taking a sample for a shelf collection. If the uranium decay from a pocket sized Chernobyl were not enough, lethal radon gas capable of causing lung cancer slowly releases from these hot rocks. This is one crystal to leave alone. Torbernite can occur in granite, so your stone countertop just might contain traces of torbernite. The bright green crystal blooms were used by prospectors as indicators of uranium deposits.

3 – Stibnite



Stibnite is antimony sulfide, but it looks like silver. For that reason, the huge, shining metallic crystals of this unstable compound were once fashioned into magnificent eating utensils. But the sword shaped crystals bore the powers of death to those who used them. Stibnite's antimony laced crystals killed a number of people before it became known that use of the mineral was causing food poisoning of the worst kind. Even in collections, stibnite samples should be handled with great caution to avoid poisoning. Hand washing is advisable after any contact. Mines near Oksaku in Japan have produced the best stibnite crystals in the world, measuring up to a foot in length. Many stibnite samples have the appearance of a miniature steeple.

2 – Orpiment



The only thing worse than arsenic itself could be a rock made from arsenic and sulfur. The lethal and chemically reactive orpiment crystals are found growing below the surface in mineral formations, often near hydrothermal vents. The colors are seductive, but holding the crystals in your hands may release carcinogenic, neurotoxic arsenic powder. Like cinnabar, the Chinese made extensive use of this mineral, but to far more terrifying ends. Arrows would be rubbed on crushed samples of these stones and then launched to poison the enemy in a rather fancy way to throw a rock. Orpiment is known to give off a strong garlic smell due to its arsenic content, and may crumble into dangerous powder when exposed to light. The mineral was used as a primary component of ochre paint, and likely poisoned many of the artists who used it.

1 – Cinnabar

Cinnabar (mercury sulfide) is the single most toxic mineral to handle on Earth. The name of the crystal means dragons blood, and it is the main ore of mercury. Forming near volcanos and sulfur deposits, the bright red crystals signal danger of the worst kind. Cinnabar may release pure mercury if disturbed or heated, causing tremors, loss of sensation and death. In the Middle Ages and late 1700s, being sent to work in Spanish mines containing cinnabar formations was widely considered a death sentence. Cinnabar was widely used in Chinese history for ornamental food dishes, and intricate carvings were created from chunks of it, sometimes at the expense of the artisans. Even more incredibly, some ancient medical practitioners believed cinnabar held healing powers, and prescribed it for certain conditions.

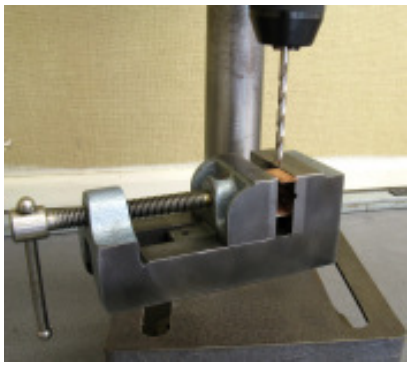
http://listverse.com/2013/03/07/10-most-deadly-rocks-and-minerals/

Bench Tips

by Brad Smith

DRILL PRESS VISE

A drill press vise is a versatile tool to hold a workpiece securely and in precise alignment. It reduces the risks of working with high power motors, use of larger drill bits, and higher heat generated in the operation. The vise can be clamped to the drill press table if needed and is quite handy for use at the bench to hold things for sawing or riveting.



You can find them at stores that carry machine tool supplies. My feeling is that the best ones are made from steel. In particular, I like the ones with V grooves cut into the jaw plates. That lets me hold a punch straight upright or hold a rod horizontal. To find a supplier, search on "drill press vise" at sites like micromark.com mscdirect.com/enco smallparts.com grizzly.com sears.com

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DENTAL GOLD

You might think that a couple pieces of dental gold would be valuable, but if you only have a small amount, it can be a problem. Sending it to a refiner is expensive for small amounts of metal.

I made the mistake of thinking I could melt it and roll out my own sheet. However, the trace metals that dental gold contains to make it a good material in your mouth cause it to crack if you try to forge it or roll it out as a sheet. It ruined my whole ingot.

So what to do with a couple gold crowns? A reasonable alternative is to try incorporating the metal into your jewelry. If you have enough material to do a casting, that's probably the best use for dental gold. If you're not into casting, try melting it on a solder pad and while molten, divide it into small pieces with your solder pick. Then re-flow each piece to make little gold balls for use as accents on your designs. The balls can also be planished a bit to make small discs or struck with a design stamp to add texture.

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

Upcoming Events

June 2 - 4, 2017
StateLine Gem and Mineral Society
Annual Show
Junior Fair Building
Fulton County Fairgrounds
8514 SR. 108
Wauseon, OH

June 9 - 14, 2017
Trip to Upper Peninsula to search for
Lake Superior Agates

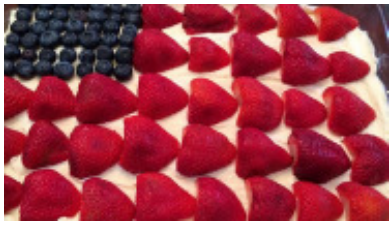
June 23 - 25, 2017
Annual Trip to Bedford, IN to attend rock show
and collect geodes.

Aug. 5, 2017
Ishpeming Rock and Mineral Club
42nd Annual Upper Peninsula
Gem and Mineral Show
Ishpeming Elks Club
597 Lakeshore Dr.
Ishpeming MI

June 23-25, 2017
Lawrence County Rock Club
County Fairgrounds
US Highway 50
Fri 10-6:30, Sat 9-6:30, Sun. 10-4.
Bedford, IN

August 18-20, 2017
Michiana Gem & Mineral Society Show
Esther Singer Bldg.
4-H Fairgrounds
5117 S. Ironwood Rd.
Fri noon- 7, Sat 10-6, Sun. 11-5
South Bend, IN

No-Bake Cheesecake Flag Cake



Recipe By:Chef John
“That you can make this lovely, sweet treat without turning on the oven is probably enough of a reason to give this serious consideration. Besides the taste and light mousse-like texture, I think your guests will enjoy the iconic stars and stripes design provided by the fresh blueberries and strawberries. USA! USA! USA!”

Ingredients

Crust:

1 1/2 cups finely crushed graham cracker crumbs
1/4 cup white sugar
2 tablespoons unsweetened cocoa powder
6 tablespoons butter, melted

Filling:

1 cup cream cheese at room temperature
1 cup mascarpone cheese at room temperature
2 teaspoons grated lemon zest
2 teaspoons lemon juice
1 teaspoon vanilla extract
1/3 cup white sugar
1 1/4 cups cold heavy whipping cream
20 large fresh strawberries, hulled and halved lengthwise, or as needed
24 large fresh blueberries, or as needed

Directions

Combine graham cracker crumbs, 1/4 cup sugar, cocoa powder, and melted butter in a bowl until mixture is thoroughly combined and crumbly.

Transfer crust mixture to a 9x11-inch baking dish. Press crust into bottom of dish until smooth and even. Cover dish with plastic wrap and refrigerate until set, about 30 minutes.

Mix cream cheese and mascarpone cheese in a bowl until thoroughly combined. Stir in lemon zest, lemon juice, and vanilla extract into mixture.

Whisk 1/3 cup sugar into whipping cream in a separate metal or glass bowl until the cream is fluffy and forms soft peaks. Add whipped cream to the cream cheese mixture and gently whisk until filling is soft, fluffy, and well combined.

Spoon filling on top of the graham cracker crust, spreading and smoothing the top. Tap the pan gently on a work surface several times to settle the crust and filling. Cover pan tightly with plastic wrap and refrigerate until chilled and set, at least 3 hours.

Starting at the bottom long edge of the cake, arrange strawberry halves in a horizontal line with the pointed bottoms of the strawberry halves pointing to the right. Start a second stripe of strawberry halves at the top right of the cake, arranging strawberries with the bottoms pointing right in a line stretching about 2/3 of the length of the cake.

Continue to make strawberry stripes, starting about 3/4 inch up from the bottom stripe and laying down 3 more stripes stretching the full length of the cake. Make 1 more line of strawberries beneath the short stripe to leave a square space for the blue field of stars.

Lay a line of blueberries with the blossom ends pointing up in the upper left square space. Continue to lay down blueberries in lines, berries touching the previous line, until the square is filled with blueberries. Cut cake into squares to serve.

Rock Trails

Sandy Gerhart, Editor
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