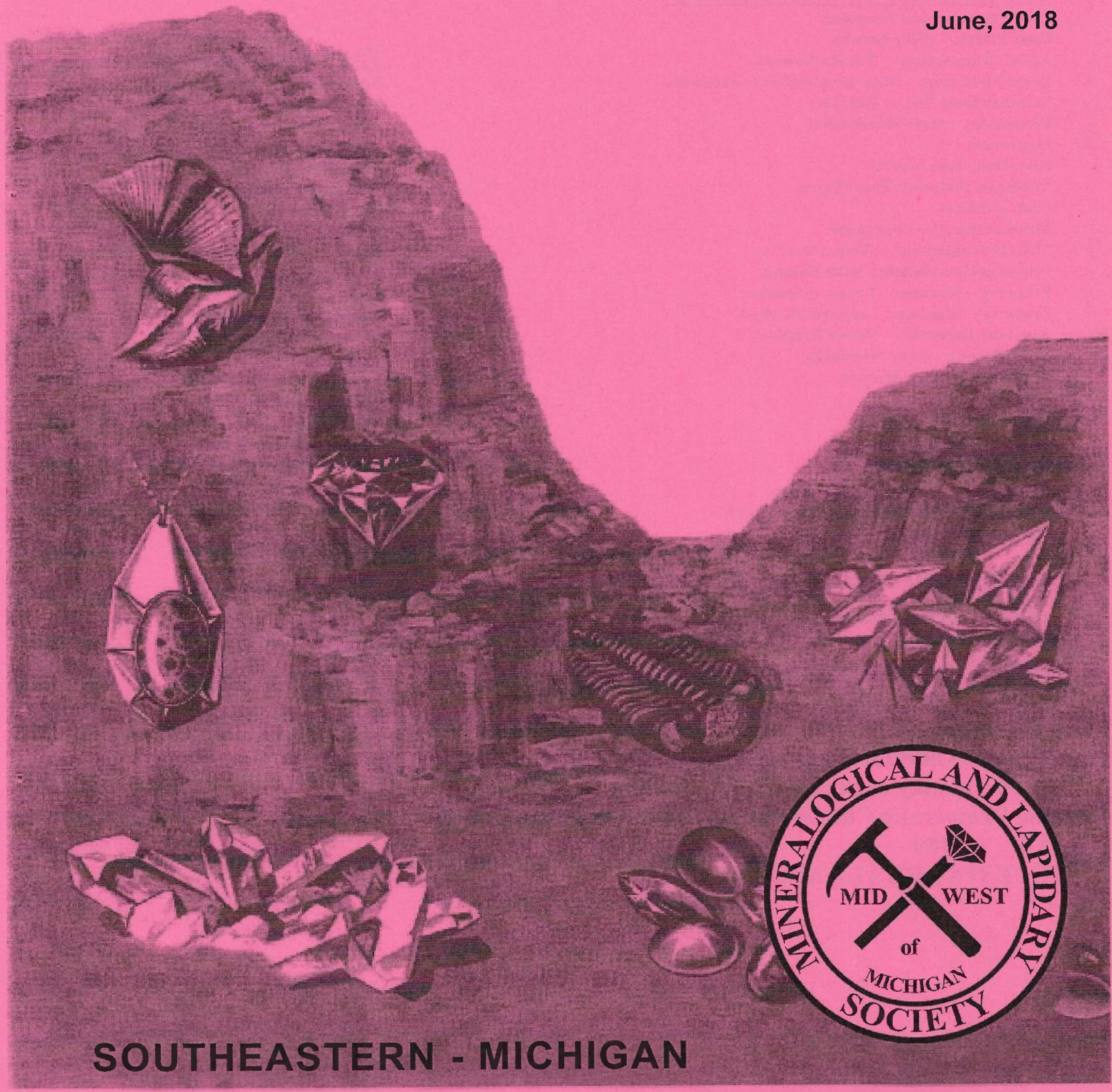
THE ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

AFFILIATED WITH • MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES • AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES

June, 2018



SOUTHEASTERN - MICHIGAN

Midwest Mineralogical & Lapidary Society

2018 OFFICERS

President: Dan Gumina (313) 766-8944
Vice President: Diane Kuzara (734) 675-5237
Recording Secretary: Julie Knechtges (734) 444-9151
Treasurer: Doris Snyder (313) 291-2133
Corresponding Secretary: Julie Knechtges (734) 444-9151
Liaison Officer: Peter Kuzara (734) 675-5237

COMMITTEE CHAIRPERSONS

Club Services: Ana Ferguson
Door Prizes: Mike Bomba
AFMS Scholarship: Pat Rutkowski
Local Field Trips - Mike Bomba/Gary Slominski
Summer Field Trips - Bill Barr
Education: Dave Hendershot
Insurance:
Historian: Tom Morris
Michigan Material: Tom Morris
Club Publicity:
Membership: Ana Ferguson
MMLS Scholarship: Velma Bradley
Program Coordinator: Mike Bomba
Property – Storage: Leonard Swisher
Property – Meetings: Leonard Swisher
Sunshine Reporter: Velma Bradley
Refreshments: Gary Slominski
Web Site: Stacey Harper

ACTIVITIES

2018 Banquet:
2018 Swap: Lou and Cindy Talley
2018 Super Swap: Bill Barr / Tom Morris
2018 Auction: Dwayne Ferguson

The Rockpile Staff : Editor Peter Kuzara,
email: Kuzara1126@gmail.com 734-675-5237

MMLS website – www.mmls.us
Email - rockhounds@mmls.us

General Club meetings are held at 7:30 p.m. on every third Tuesday of the month (except July and August) at the Democratic Club of Taylor, 23400 Wick Rd., Taylor, MI 48180
GUESTS ARE ALWAYS WELCOME

STUDY GROUPS

Advanced Lapidary:
Basic Lapidary:
Bead Study: Diane Kuzara
Faceting:
Mineralogy: Bill Barr
Paleontology:
Wire Study: John Lindsay
Silversmithing:

PAST PRESIDENTS

Robert Ellison (interim) 1956
Louis Cox 1957
Robert Heldenbrand 1958-59
Ralph Gamble 1959-60
Fred Miller 1960-61
Bert Smart 1961-62
Leo Nieman 1963
Nicholas Rothenthaler 1964-65
Robert Fedoruk 1966-67
John Good 1968-69
Cecilia Duluk 1970
Stanley Franczak 1971-72
E. Donald Stinnett 1973-74
Ralph Goniea 1975-76
Norman Hanschu 1977-78
Thomas Gibbs 1979-80
Harry Nagy 1981-82
Elspeth Gibbs 1983-84
Loretta Franczak 1985-86
Roland Snyder 1987-88
Jay Ross 1989-90
Tom Morris Jr. 1991-92
Diane Kuzara 1993-94
Bill Orban 1995-96
Glenn Swain 1997-98
Bill Peach 1999-2000
Diane Kuzara 2001-02
Cecilia Duluk 2003-04
Russ Ranker 2005-06
Dick DePodesta 2007-08
Rich Williams 2009-10
Leonard Swisher 2011-12
Mike Bomba 2013 - 14
Diane Kuzara 2015 - 16

THE ROCKPILE
June, 2018 Volume LXII Issue 6

June Program: Will be a video from the Dallas Symposium about Elmwood, Tn. Mines

CONGRATULATIONS TO OUR SCHOLARSHIP RECIPIENTS FOR 2018:

Katelyn Kring Mich Tech
Krystal Krygowski Wayne State
Sean Hyde U of M Dearborn

WE GOT MAIL!!!!

Please tell everyone we had a great time at the swap! Some of our club members went and I got a really nice-from a different location that I had - Barite. We bought some additional minerals and one of my friends got some beautiful cabs. It was good to see old friends! It was fun to be a participant! My husband got grit for our tumbler and so all is right with the world.
John and Sally Hoskin
Michigan Gem and Mineral Society (Jackson Club)

Address Update:

Jason Glenn
679 Long Lake Rd.
Stamford, CT 06902

WIRE WRAP CLASS Anyone interested in a study group for wire wrap please contact John Lindsay for dates, time and more information.

NOTICE TO STUDY GROUPS IF THERE IS A CHANGE IN YOUR MEETING TIME OR PLACE, PLEASE LET THE EDITOR KNOW!!!!!

Dates to Remember:

Contacts for study groups:
Bead study, Diane Kuzara, 734-675-5237
Mineral study, David Esch, 734-665-5574
Wirewrap, John Lindsay, 734-604-8561
Lapidary work shop, Frank Konieczki 734-323-2218

Our Club Activities

June 4th, 18th &20th Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is $2.50 for each evening.

June 7th & 21st Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.

June 15th Board Meeting TBA ROCKPILE DEADLINE.

June 19th General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.

June 21st Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor Mi. At 7:30pm.

Aug. 17th ROCKPILE DEADLINE

Sept. 6th & 20th Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.

Sept. 17th & 19th Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is $2.50 for each evening.

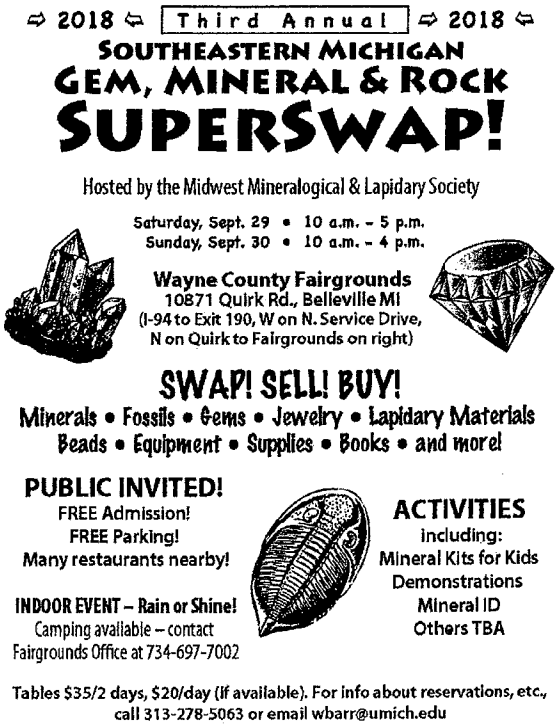
Sept. 14th Board Meeting ROCKPILE DEADLINE. TBA

Sept. 18th General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.

Sept. 20th Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor Mi. At 7:30pm.

Sept. 29-30: BELLEVIEW MI Midwest Mineralogical & Lapidary Society Rock Swap. Sat 10 am - 5 pm; Sun 10 am - 4 pm. Wayne County Fairgrounds, 10871 Quirk Rd.,

Belleville. Contact: Bill Barr, (508) 803-4888; *wbarr@umich.edu*; Tom Morris, Sr., 4583 Shenandoah, Allen Park 48101; (313) 278-5064



Sister Club Events

June 1-3: 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. Contact: Glenda Gafner, 3720 Britton Hwy, Britton 49229; (517) 403-6310; *ggafner@frontier.com*

June 9-10: 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. Contact Tom Kottyan, (419) 562-1152; *themineralhouse@netzero.net*

June 22-24: 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. Contact: Michael & Marjorie Tweedale, 375 Butterfly Ln, Bedford 47421; (812) 675-6054mailto:lakeagzrc70@yahoo.com

July 14: CLIO, MI Flint Rock & Gem Club Rock Swap. 9 am - 5 pm. Flint Rock & Gem Club Classroom, 11350 N Saginaw Rd., Clio. Contact: Bill Wendling, 9145 Johnston Rd., New Lothrop 48460; (810) 638-5796; *bwrockbarn@centurytel.net*

August 4: ISHPEMING, MI Ishpeming Rock & Mineral Club Annual Show. 9 am - 4 pm. Ishpeming Elks Club, 597 Lakeshore Dr.,Ishpeming. Contact: Ernie Johnson; (906) 228-9422; *ejohnson@nmu.edu*

August 10-12: HOUGHTON, MI Copper Country Rock & Mineral Club Annual Show. Fri 1-8 pm; Sat 10 am - 6 pm; Sun 11 am - 3 pm. Houghton Elementary School, 302 W. Jacker Ave, Houghton. Contact: Norm Gruber, 1850 Clark St., Marquette 49855; (906) 228-6764; *show@ccrmc.info*

Sept. 7-9: TOLEDO, OH Toledo Gem & Rockhound Club Annual Show. Fri 7-8 pm.; Sat 10 am - 6 pm; Sun 11 am - 5 pm. Stranahan Theater & Exhibit Hall, 4645 Heatherdowns, Toledo. Contact: Steve Shimatski; (419) 861-0147; *sjs132@gmail.com*

Sept. 15-16: HOWELL, MI Livingston Gem & Mineral Society Annual Show. Sat 10 am - 5 pm; Sun 10 am - 4 pm. Hartland Educational Support Center, 9525 E. Highland Rd., Howell. Contact: Ed Oller, 68 Ganges Blvd, Swarty Creek 48473; (810) 241-8801

Sept. 22: PORTAGE, MI Kalamazoo Geological & Mineral Society Rock Swap and Tailgate. 9 am - 1 pm. St. Michael Lutheran Church Parking Lot, 7211 Oakland Dr., Portage. Contact: Dennis Guy; (260) 651-1314; *dguy3@charter.net*

Sept. 29-30: TRAVERSE CITY, MI Grand Traverse Area Rock & Mineral Club Annual Show. Sat 10 am - 5 pm; Sun 11 am - 4

pm. Cherryland VFW Hall (Post 2780), 3400 Veterans Dr., Traverse City. Contact: Pierre LaFoille, 11788 Snowfield Ct., Traverse City 49686; *pals0210@gmail.com*

ROCK SALE

RETIRED AFTER 40+ YEARS IN THE ROCK & GEM BUSINESS
DATE: SAT AUG. 4, 2018 8AM TO 4 PM
29043 ALVIN ST., GARDEN CITY, MICH.
D.DEMERLY'S ROCKS
E-MAIL: ddraw@comcast.net For Directions
LOTS OF SLABS, ROUGH ROCK, FACET MATERIAL, SOME SUPPLIES AND SOME SURPRIES \ 50% OFF MARKED PRICES CASH OR CHECKS ONLY
NO EARLY ARRIVALS PLEASE

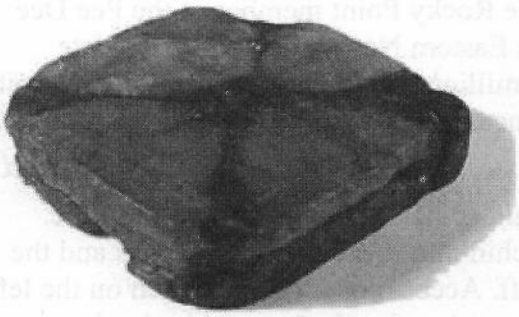
Michigan Minerals Beginning with the Letter A

Andalusite Al_2SiO_5

What is Andalusite? What is Chiastolite? - Geology geology.com ›

Minerals ***https://www.bing.com/search?q=andalusite&filters=ufn:***

Andalusite is a rock-forming mineral that is mined for use in high-temperature refractories. Gem-quality specimens are cut into faceted stones or cabochons.

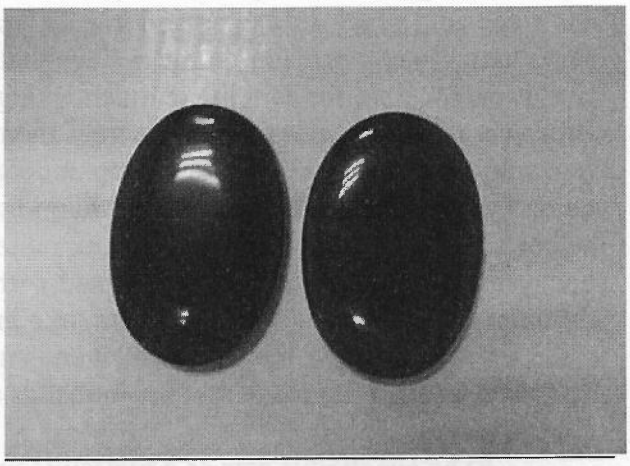


Bing Image from Internet

Hardness is 6.5 to 7.5 on mohs scale.
Color: pink to brown occasionally yellow, green, white, gray rarely violet.
Occurrences: Iron County Lake Mary quadrangle. Marquette County Beacon Mine.
From Mindat.org and The Mineralogy of Michigan by E. WM. Heinrich.

Hawaii's Official State Gemstone is Black Coral.

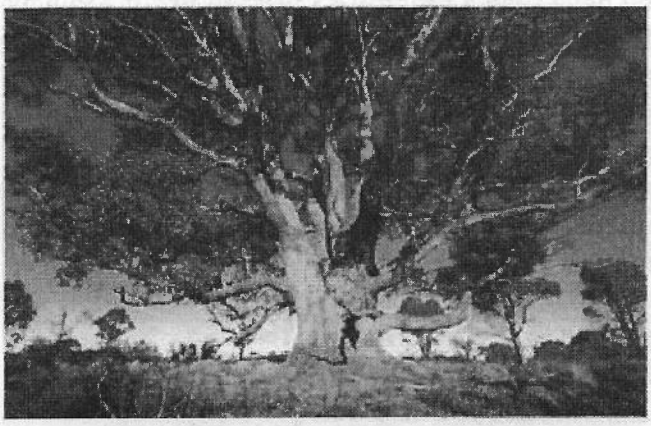
Hawaii designated **black coral** as the official state gem in 1987. Black corals are animals (Family Antipathidae) that live in colonies up to 6 feet high (1.8 meters), though individual polyps may be less than .04 inches (1 mm) in diameter.



Picture Bing INternet
From the Internet

Eucalyptus Trees Actually "Mine" Gold and Deposit it in their Leaves

by Ethan A. Huff, staff writer from Nature News from Geologyln.com, via Mineral Minutes 09/2017



Gone may be the days of having to dig and dredge the earth in search of gold, thanks to a recent

discovery by researchers from the Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia. They found that the common eucalyptus tree, which grows extensively throughout Australia and in many other parts of the world, literally mines gold out of the ground via its extensive root system and deposits this precious metal in its branches and leaves.

Published in the journal Nature Communications, the research that led to this amazing discovery helps bring clarity to an ongoing dispute among scientists of different persuasions as to where the gold previously observed in eucalyptus leaves actually comes from. Some believe that the wind is responsible for canying and depositing it, while others have suspected that the trees themselves have some kind of special ability to tap underground ore reserves. It turns out that the latter hypothesis is the correct one: eucalyptus trees grow extremely deep root systems that tap water sources mixed with gold and other minerals. And when the trees take in this water, they also take in the gold, which ends up being processed through the trunk, out the branches and into the leaves.

"The eucalyptus acts as a hydraulic pump-its roots extend tens of meters into the ground and draw up water containing the gold," explains Dr. Mel Lintern, a geochemist at CSIRO who helped work on the research. "As the gold is likely to be toxic to the plant, it's moved to the leaves and branches where it can be released or shed to the ground."

This is good news for gold mining industries, which have seen a roughly 45 percent decline in new gold discoveries over the past decade. Though eucalyptus trees are incapable of pulling up substantial quantities of gold-the amount of gold detected in the leaves was about one-fifth the diameter of a human hair in size-they could serve as a beneficial and environmentally friendly detection tool for miners.

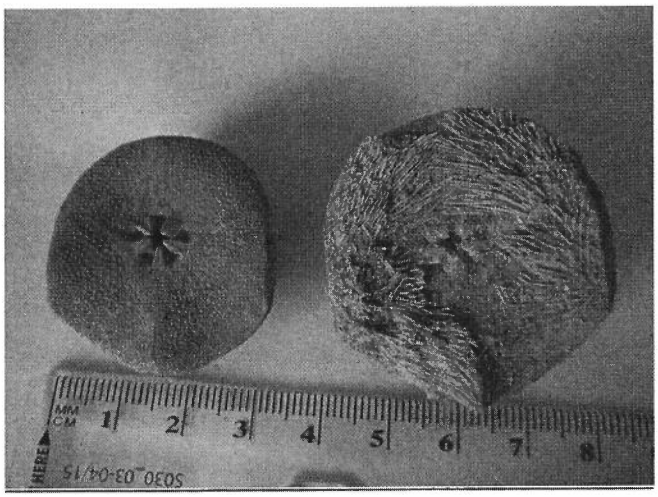
'The leaves could be used in combination with other tools as a more cost-effective and environmentally friendly detection technique," adds Dr. Lintem, as quoted by Science Daily. "By sampling and analyzing vegetation for traces of minerals, we may get an idea of what's happening below the surface without the need to drill. It's a more targeted way of searching for minerals that reduces costs and impact on the environment."

From the Back Benders Gazette 10/17

Featured Fossil: Hardouinia mortonis Urchins

By Sadie Mills

This issue, we feature two echinoid specimens found by Linda McCall of the North Carolina Fossil Club and the Special Friends of the Aurora Fossil Museum. Linda presented about these echinoids during our most recent webinar, *Fossils of the Carolinas*.



The pictured specimens were found in a sand pit, located in the Rocky Point member of the Pee Dee formation in Eastern North Carolina. They date between 66 million and 70 million years old. Despite their differences in appearance, they are both *Hardouinia mortonis* specimens. Linda explained that sea urchin spines are attached by soft tissue. When an urchin dies, the soft tissue decays and the spines fall off. Accordingly, the specimen on the left (without spines) is a fossil of an urchin that became buried after the animal had died. The specimen on may have made for a bad day for this ancient sea urchin, it the right, however, retains its spines, suggesting it was buried alive! While this becomes a great day for the fossil hunter who is able to recover the specimen with its spines intact. Thank you to

Linda for sharing these wonderful specimens with us!
From the Internet My Fossil, Fossil Project Newsletter Vol. 4, Issue 4, Winter 2017

A Woman's Poem

He didn't like casserole,
And he didn't like my cake.

He said my biscuits were to hard.
Not like his mother used to make.

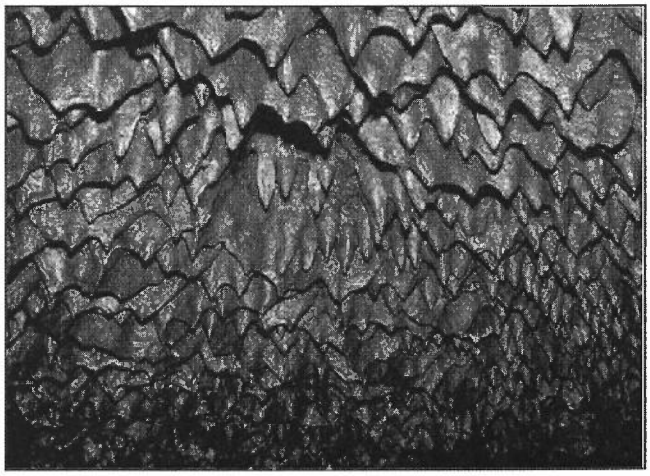
I didn't perk the coffee right,
He didn't like the stew,

I didn't mend his socks
The way his mother used to do.

I pondered for an answer.
I was looking for a clue.

Then I turned around and smacked him.
Like his MOMMA USED TO DO.
From the Road Runner 4/17
via The Backbender's Gazette 6/17

The Geology of Lavacicle Caves



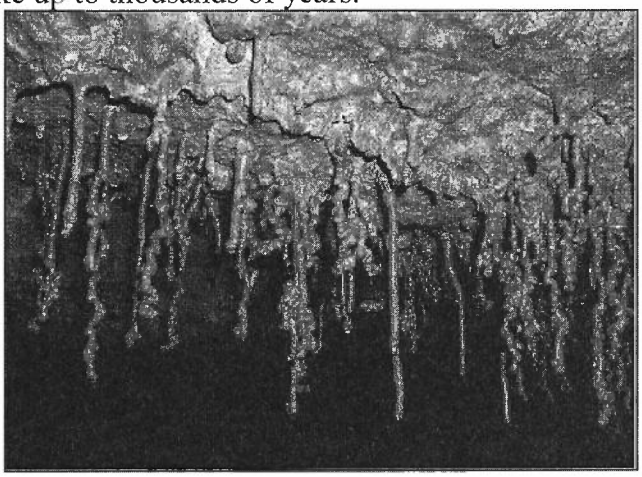
Stalactites in Arnarker lava tube icelandic cave

Lavacicle Caves

The generic term "**lavacicle**" has been applied to lava stalactites and stalagmites indiscriminately, and evolved from the word "icicle".

Lavacicle is formed in lava tubes while lava is still active inside. The mechanism of formation is similar to that of limestone stalagmites.

Essentially, it is still the deposition of material on the floors of caves; however with lava stalagmites, formation happens **very quickly** in only a matter of hours, days, or weeks, whereas limestone stalagmites may take up to thousands of years.



Lava stalactites in a Mount St. Helens Cave,Washington state. credit: Jim Nieland

A key difference with **lava stalagmites** is that once the lava has ceased flowing, so too will the stalagmites cease to grow. This means if the stalagmite were to be broken it would never grow back.

Stalagmites in lava tubes are rarer than their stalactite counterparts because during formation the dripping material falls onto still-moving lava floors that absorb or carry the material away. From the internet: Geologyin.com

Polishing Rhodochrosite

From the late Ed Wengerd's note book via Chippers' Chatter 11/15

When cutting Rhodochrosite, it is important that only water be used in the saw. An oil-based product will be absorbed, and the stone's color will be deadened. After you've shaped the stone to its desired form, first sand on a 220 wheel, then move through the various mesh wheels. Use plenty of water, and don't

apply too much pressure. Check the stone carefully with a loupe or magnifying glass between wheels to be sure you've removed all the sanding marks and flat spots. The best polishing agent for Rhodochrosite still is to use a felt wheel with tin oxide mixed with a small amount of vinegar.
From BACKBENDER'S GAZETTE 3/16

IDENTIFYING UNMARKED SOLDERS

There are plenty of ways to mark your sheet or wire solders, but suppose you forgot to mark them and have a couple that you can't identify. The answer is to compare the melting temperature of the unknowns with that of a known solder. What I do is take a thick scrap of copper or nickel, and arrange several solders on it. Ideally, I would have a sample of easy, medium, and hard known solders surrounding the unknown solder. Then, I heat the plate from the bottom and watch the order in which the solders melt.

INEXPENSIVE ELECTRIC WAX PEN

You can make your own wax pen from a small soldering iron plugged into a light dimmer switch for heat control. Both components are easily found at Radio Shack, or a big hardware store, or at Harbor Freight. As an example of the components, see www.harborfreight.com items #43060 and #47887. File the tip of the soldering iron into the shape you prefer—or even better, get a soldering iron with replaceable tips. Then you can make several tip shapes for different tasks. Set the dimmer control just hot enough to melt the wax without producing any smoke. A tip design that I find ideal for some work is a length of small-gauge wire that lets me reach in around the model to melt some wax. The wire is about 15 mm long and is 18- or 20-gauge. To conduct heat all the way to the tip, I use sterling wire, then silver-solder it into a hole on the end of a copper or brass rod that will fit into the soldering iron.
From THE BACKBENDER'S GAZETTE MARCH 2016

Azurite

By Dave Jacobson

This month we will take a look at azurite, $Cu_3(CO_3)_2(OH)_2$, copper carbonatehydroxide. Most mineral collectors have a specimen or two of azurite in their collections, since it is a very popular mineral due to its color. Its color is due to the copper, the coloring agent, com-bines with the carbonate groups (CO_3) and hydroxyls (OH). It is a secondary copper mineral found in sulfide deposits associated with carbonate rocks. Malachite, $Cu_2(CO_3)(OH)_2$, hydrous copper carbonate is often found with azurite. At times, the malachite replaces the azurite forming a pseudomorph, meaning you have a malachite crystal in the original shape of the azurite crystal. Azurite is found in many localities in the world. Some of the more famous localities are: Chessy, near Lyons, France; Tsumeb, Nambia; Larium, Greece; Morocco and Broken Hill, New South Wales, Australia. In the USA, several localities in Arizona such as Bisbee and Morenci. Some minerals found with azurite are: limonite, chalcopyrite, native copper, calcite, cuprite, chrysocolla, malachite and other oxidized copper minerals. Azurite is a minor ore of copper. It is sometimes used to make jewelry. It is cut into cabochons, but when faceted it is too soft for every day wear.

Azurite is in the monoclinic crystal system. It is commonly crystallized in the following habits. Irregular blades with wedge shaped terminations. Rosette like aggregates. Slender needles and hairs. It also forms in botryoidal growths, which are sometimes interlayered with malachite. It's color is azure, from which the mineral takes its name. It can also be deep blue or pale blue. Streak is blue. Specific gravity is 3.7 to 3.9. Hardness is 3.5 to 4. It is brittle. Fracture is conchoidal. It will dissolve in hydrochloric acid with effervescence.
I used the following reference materials in preparing this article. *Field Guide to Rocks and Minerals* by Frederick H. Pough. *Mineralogy For Amateurs* by John Sinkankus. Simon & Schuster's Guide to Rocks And Minerals. *Minerals of the World* by Walter Schumann. Ame-thyst Galleries Mineral Gallery on the internet at http://mineral.galleries.com. From The Quarry 11/17 Via *Canaveral Moonstone* Oct 2017

HAVE A GREAT SUMMER
SEE YOU IN SEPTEMBER!!!

THE MIDWEST MINERALOGICAL AND LAPIDARY SOCIETY (MMLS) is an educational non-profit organization founded in 1956. The Society now has more than 100 members and is affiliated with the Midwest Federation of Mineralogical Societies and the American Federation of Mineralogical Societies. Significantly, MMLS has been recognized numerous times by the Midwest and American Federations with first place (gold level) awards in the annual All American Club Awards Program.

PURPOSE: The purpose of The MMLS shall be (I) to promote interest in and increase knowledge in the fields of mineralogy, geology, and paleontology, including lapidary and related arts; (2) to publish articles and information pertaining to these fields; (3) to encourage collections and to display specimens in these fields; and (4) to arrange field trips in support of the interests and activities specified.

GENERAL MEETINGS: the third Tuesday of each month, September through June, 7:30 p.m. at the Democratic Club of Taylor, 23400 Wick Rd., Taylor, MI 48180 **GUESTS ARE ALWAYS WELCOME.**

MEMBERSHIP: Applications for membership can be obtained at any general meeting or from any MMLS member. DUES: Entrance fee - $3.00; annual dues - $15.00 (adult), $1.00 (junior) on a year basis. Membership expires each Dec. 31.

ANNUAL EVENTS:
March - Spring Rock Swap and Sale Fall- 2 Day SuperSwap and Sale November Annual Auction

STUDY GROUPS: Special-interest study groups meet monthly, September though June. No additional fees are involved. Currently the following groups are active: Basic Lapidary Advanced Lapidary Wire Study Bead Study Mineralogy Silversmithing (Silversmithing is now on hold until further notice.)

FIELD TRIPS: Several one day field trips and one longer (one to two weeks) field trips are conducted each year. Mostly, these field trips focus on the collecting of mineral and fossil specimens at quarries, mines, and other known collecting sites in the United States and Canada. Field trips are restricted to MMLS members.

SCHOLARSHIP FUND: **MMLS** has established a scholarship Endowment Fund which provides scholarships to qualified students enrolled in an accredited college or university in southeastern Michigan who have completed at least their junior year and have a major in geology, mineralogy, paleontology or lapidary and related arts.

SEAMAN MINERAL MUSEUM: MMLS has designated the A.E. SEAMAN Mineral Museum, Houghton, Michigan, as it's "adoptive" museum, pledging to support it with gifts to the museum's endowment fund and the donation of mineral specimens and services.

INTERNET WEB SITES OF INTEREST:
Midwest Federation:
www.amfed.org/mw1lindex.html American
Lands Access Association: http: //amlands.org

American Federation:
www.amfed.org

The Rockhound's 10 Commandments:

Thou shall not touch thy neighbor's minerals unless he places them in thy hands.
Thou shall not test the strength of crystals by pushing, squeezing or biting.
Thou shall not drop thy neighbor's fossils, for many do not bounce properly.
Thou shall not place thy neighbor's specimens in thine own pocket.
Thou shall not collect at a neighbor's land unless unless thy neighbor knowst he's there.
Thou shall not argue names of minerals too violently; for sometimes thou couldst be wrong.
Thou shall not climb above thy neighbor's head when on a field trip, lest thou art willing to spend the rest of the day digging him out.
Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.
Thou shall not encroach upon thy neighbor's diggin's, lest thy neighbor's hammer be dropped upon thee. J0. Thou shall not break uncollectable specimens.

Midwest
Mineralogical and
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Society of
Michigan

EDITOR
20281 THOMAS
BROWNSTOWN, MI
48183

OFFICIAL PUBLICATION OF

Dated Material

The ROCKPILE

Bulletin Editor Contest Awards

■

1993 – 1st Place (Large Bulletin) AFMS
1991 – 1st Place (Large Bulletin) MWF
1990 – 1st Place (New Editor) AFMS
1990 – 1st Place (New Editor) MWF