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

December 2025

SOUTHEASTERN - MICHIGAN

Midwest Mineralogical & Lapidary Society

2025 OFFICERS

President: Mike Bomba (313) 381-8455
Vice President: Dan Gumina (313) 766-8944
Recording Secretary: Andrea Rinker (734) 755-2570
Treasurer: Doris Snyder (313) 291-2133
Corresponding Secretary: Andrea Rinker (734) 755-2570
Liaison Officer: Peter Kuzara (734) 675-5237

COMMITTEE CHAIRPERSONS

Club Services: Ana Ferguson
Door Prizes: Mike Bomba
AFMS Scholarship: Pat Rutkowski Field
Trips - Mike Bomba/Gary Slominski
Historian: Tom Morris
Michigan Material: Tom Morris
Membership: Ana Ferguson
MMLS Scholarship: Velma Bradley
Program Coordinator: Mike Bomba
Property - Storage: Gary Slominski
Sunshine Reporter: Velma Bradley
Refreshments: Gary Slominski
Web Site: Stacey Harper

ACTIVITIES

2025 Banquet: Andrea Rinker
2025 Club Picnic: Stacey Harper
2025 Swap: Lou and Cindy Talley
2025 Super Swap: Bill Barr
2025 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

Lapidary: Workshop at Frank Konieczki
Bead Study: Diane Kuzara
Mineralogy: Frank Konieczki

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 1966-6
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
Dan Gumina 2017 - 18
Diane Kuzara 2019 -2020
Dan Gumina 2021 - 2022
Mike Bomba 2023 -

THE ROCKPILE
December, 2025 Volume LXIX Issue 10

President's message: Merry Christmas everyone ! We had a very successful auction this year and I would like to thank all those who participated especially Dwane and Anna Ferguson, and our auctioneer Mark . Don't forget that our dues are due for next year. I hope to see everyone at our annual Christmas party at the General meeting . Bring some snacks and gift for our gift exchange and it should be a grand time. Stay safe and be healthy !
President Mike

December Program: The December program will be the annual Christmas party gift exchange. If you want to bring a gift there is a $10.00 limit! We will have some there from our regular door prizes.

This is a corrected list of officers for 2026. Club officers for 2026 Are:

President: Mike Bomba
Vice President: Tim McNamara
Recording / Corresponding Secretary: Andrew Chiles
Treasurer: Theresa Stewart - Brown
Liaison Officer: Pete Kuzara

STILL LOOKING FOR A NEW EDITOR! Editor Pete

Looking for a new Program Chairman.

If interested and want to help check with Mike Bomba, he will inform you what is required.

Dates to Remember!

Before traveling a great distance call to make sure the meeting is still going on!

December 16 Deadline for the January Rockpile

Dec. 4th & 18thBead Study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237

Dec. 16thBoard Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6:30 pm.

Dec. 16thGeneral Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor At 7:30 pm.

Dec. 18th Mineral Study Group will meet at the West Side United Methodist Church, 900 S. Seventh St., Ann Arbor at 7:30 PM. Contact for the group is Frank Konieczki 734-323-2218.

January8th 15th, 2026 Bead Study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237

January 15th, 2026 Mineral Study Group will meet at the West Side United Methodist Church, 900 S. Seventh St., Ann Arbor at 7:30 PM. Contact for the group is Frank Konieczki 734-323-2218.

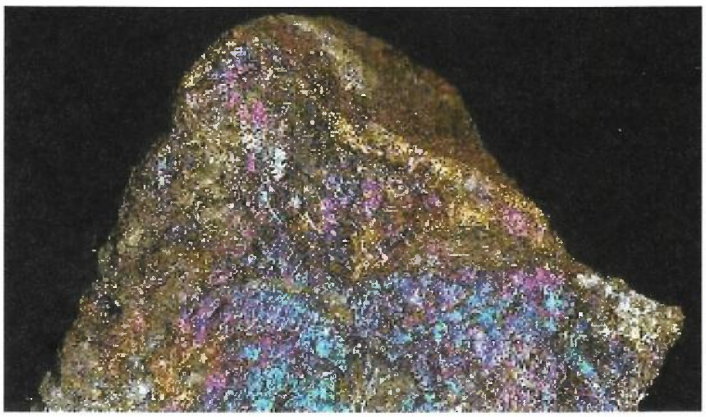
January 20th, 2026 Board Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6:30 pm.

January 20th, 2026 General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor
At 7:30 pm.

Sister Club Events

Michigan Minerals Beginning With the Letter B: Bornite Cu5FeS4

Bornite, also known as peacock ore, is a sulfide mineral with chemical composition Cu5FeS4 that crystallizes in the orthorhombic system (pseudo-cubic). It is an important copper ore



Color:Bornite has a brown to copper-red color on fresh surfaces that tarnishes to
various iridescent shades of blue to purple in places. Its striking iridescence gives it the nickname peacock copper or peacock ore.
Hardness: 3 to 3.25 on the Mohs scale
Occurrence: Gratiot, Houghton, Iron, Keweenaw, Marquette and Ontonagon Counties
Information and picture from the internet Wikipedia

Techniques Can Spot Counterfeit Bills

Sandy Fuller
MWF Technology Resources Chair Sandy Fuller

"Oh, I just printed that today! Isn't the ink dry yet?" the customer teases as the cashier holds the bill up to the light

What's happening? It's US currency, isn't it?

Or is it?

The government has made it more difficult to reproduce paper money, but not everyone has been informed of the changes. So dispose of those obsolete marking pens and get informed.

Currency is printed on a combination of linen and cotton. It's a type of paper that is specially made for currency and is different from regular **paper. The** old marking pens could detect if rag stock was used, but little else.

Unfortunately, thieves have become more sophisticated. They now bleach a dollar bill which has the proper rag stock and then they copy a larger bill, such as a twenty, fifty, or hundred, onto that paper.

Fortunately, the new bills take this into consideration. Feel the bill. The printing is raised on this unique combination of cotton and linen. A photocopy is flat, so the difference can be felt.

Now, tilt the bill. Denominations 10 and above change the color of the number on the lower right side. This gold-green shift can be easily seen.

Embedded within each of them is a hologram of the person featured on the bill. The hologram can't be copied, so the fake bill has a hologram that does not match the picture when the bill is held up to the light.

Finally, if you want to check out all the anti-copying features of the bills, get out your black light and examine them. Newer bills, other than the ones,have a security thread embedded vertically in each bill. Looking closely, you can see that the security thread has writing verifying the denomination.

If you only have time for one check, hold the bill to the light and look for the hologram. This is the quickest and easiest way to prevent theft.
From MWF News 11/25

Pineapple Opals

From The Opal Express, The American Opal Society, September 2025

Pineapple opals are pseudomorphs—minerals that have replaced another mineral while preserving the original crystal shape. In this case, opal replaces ikaite (a hydrated form of calcium carbonate).

-Ikaite forms only under specific conditions—low temperatures, high alkalinity, and elevated pressures—typically in deep marine or cold sedimentary environments.

-Over time, as environmental conditions shift, the unstable ikaite decomposes and is replaced molecule by molecule by silica-rich fluids, forming opal.

-The original crystal habit of ikaite, which features radiating spear-like formations, is preserved—resulting in the iconic spikey "pineapple" shape.

Opal pseudomorphs are created by the deposition of opal in casts (molds) of fossil bone, teeth, shell, belemnoids (ancient relatives of cuttlefish), crinoid (sea lilies), wood, fir cones and even skeletons of large prehistoric animals. Many of these fossilized forms contain exceptional quality noble opal. White Cliffs is the only place where these marvelous (and very rare) pseudomorphic opals have been found.

White Cliffs is a small town in outback New South Wales in Australia, in Central Darling Shire. White Cliffs is around 255km northeast of Broken Hill, 93km north of Wilcannia. At the 2021 census, White Cliffs had a population of 156.

To the objective observer White Cliffs is really a single purpose town. Miners started coming here (the local Aborigines found it far too hot for permanent settlement and occasionally visited the place as they traveled to and from the Darling River) in the 1880's and, apart from its minor function as a service centre for the surrounding properties, it remains a town driven by opals.

The summer temperatures, typically over 40°C (104°F), forced the miners underground. The 100 million years old sandstone conglomerate in which the opal seams were buried carried two advantages. It was remarkably stable (no one has ever died from a mine collapse in White Cliffs) and it was relatively easy to dig. By around 1900 miners were burrowing into the hills in an attempt to find opals and escape from the heat. The real way to see White Cliffs is from the air. It appears like a strange moonscape with an estimated 50,000 disused diggings.

Fewer than a few hundred authentic pineapple opals have ever been documented, making them one of the rarest opal types on Earth. Their scarcity, combined with their bizarre and beautiful form, makes them highly coveted by mineral collectors and museums. Top specimens can command very high prices in the collector's market.

From A.F.M.S. Newsletter 11/25 and picture from the internet

You Know You're a Serious Mineral Collector When ...

...you eat Ramen Noodles so you can afford to buy that Rhodochrosite crystal.
...your middle name is Quartz.
...you named your cat Tanzanite.
...you sleep on the couch because your bedroom is actually your own little mineral museum.
...you buy your wife a diamond crystal instead of a diamond ring.
...you know the chemical formula of tourmaline, without looking at a book.
...you want Santa to put rocks (and crystals and minerals) in your stocking.
...you know how to pronounce the name "Chalcedony."
Create your own!
From The Quarry 4/21

Some Diamond Information

By Emerald A Geo Junior Member Chicago Rocks & Minerals Society From the January, 2021 Pick & Dop Stick

We do not know who found the Shah Diamond. The Shah Diamond probably is a Golconda diamond, mined in India. [Editor's Note: Golconda diamonds, mined in a specific area of India, are

named after the diamond trading center in Golconda where many of them were originally sold.] It was found before 1591, but we do not know the exact year.

People think it weighed 95 carats when it was found. It is now only 89 carats.

The shape of the Shah Diamond is a long octahedron. The diamond is polished on some sides and has 15 facets. Some of the facets are still natural. The cut is called a table cut. It is a yellow tinted stone, and does not have any clouds or flaws.

The Shah Diamond changed over time. Someone added a groove. The groove was to put it on a cord that the Shah could wear around his neck. It also has engravings in ancient Persian. The Shah Diamond after cutting. Photo via Indianetzone.com.

It is unique because the names of three shahs are engraved on it. A shah was an emperor in ancient Persia or India. The shahs' names that are engraved on it are: Burhan Nizam Shah II 1000, Son of Jehangir Shah; Shah Jahan 1051; and Kadja Fath Ali Shah 1242. The years listed are from the Muslim calendar. In the modern calendar those years were 1591, 1641, and 1826.

Burhan Nizam Shah II was a Shah in Ahmendagar in India. Shah Jahan was a Mughal emperor who built the famous Taj Mahal in India. Shah Jahan had the diamond, Nadir Shah took it from the city of Delhi in 1739. Nadir Shah brought it to Persia, now called Iran.

Czar Nicholas I of Russia got the diamond in 1829, just a few years after the last engraving. Fath Ali Shah gave it to Czar Nicholas as a gift. Why would someone give away such a big, clear diamond? A mob of people in Tehran had killed the Russian ambassador. The Shah Diamond was a gift to calm down the Russian czar.

The Shah diamond is now in the State Diamond Fund of Russia. It is in a museum at the Kremlin in Moscow.

Bibliography: Oldershaw, Cally. F
Oldershaw, Cally. Firefly Guide to Gems, p. 35. Firefly Books, 2003. Manutchehr-Danai, Mohsen. Dictionary of Gems and Gemology, p. 425. Springer, 2000. Streeter, Edwin W. The Great Diamonds of the World: Their History and Romance, p. 232-236. G. Bell & Sons, 1882. Erlich, Edward and Hausel, W. Dan. Diamond Deposits: Origin, Exploration,
From the MWF News April 2021
From The Quarry 4/21

Field Tripper Gives Equipment Tips

Reggie Rose, Past Field Trip Chair
Columbus Rock & Mineral Society (OH)
From the April, 2025 Glacial Groove

If you want to take part in field trips of your rockhounding club, you will need the proper clothing and equipment. Here's what you will need to get started, but over time you will probably want to make improvements and/or additions to your equipment based on handiness and experience.

CLOTHING

A hard hat, safety glasses, sturdy jeans, steel-toe boots, heavy gloves, and a rain suit.

Hard hats are available at Home Depot, Menard's, and Lowe's.

Safety glasses: Even if you wear glasses, these are a good idea since bits of rock can fly into your face
if you are bashing on a big rock. If you wear glasses for vision correction, wear an older pair and leave the good pair in the car for the drive home.

Gloves are available at a low price at Home Depot, Menard's, and Sutherland's.

Jeans: I think everyone has these. A quarry is no place for fashion jeans or shorts.

Steel-toe boots: You can spend an astronomical amount of money on these, or you can go to Walmart or shop online and get an inexpensive pair.
Add a pair of arch supports or sole inserts to increase comfort. Nothing will kill your enthusiasm for collecting faster than going on a four-hour field trip in two-hour boots.Steel-toe boots: You can spend an astronomical amount of money on these, or you can

go to Walmart or shop online and get an inexpensive pair. Add a pair of arch supports or sole inserts to increase comfort. Nothing will kill your enthusiasm for collecting faster than going on a four-hour field trip intwo-hour boots.

Rain suits, especially the pants, are good for keeping off both rain and dust.Rain suits, especially the pants, are good for keeping off both rain and dust.

ACCESSORIES
Tool belt: You may want to invest in an inexpensive tool belt, or start out with a hammer carrier that you can loop over your belt. You can get these at Sutherland's, Spartan Tool Supply, or Menard's.

Knee pads: Some people invest in knee pads. You might want to check for used pads at Play It Again Sports before purchasing them at Home Depot, Menard's, or Lowe's. A used pair of volleyball knee sup-ports may be more comfortable than what is available at home and garden stores.Knee pads: Some people invest in knee pads. You might want to check for used pads at Play It Again Sports before purchasing them at Home Depot, Menard's, or Lowe's. A used pair of volleyball knee sup-ports may be more comfortable than what is available at home and garden stores.

Carriers: Shower totes with two compartments are handy for carrying rocks. Get two. As you scramble up a rock pile you can also use them in hand to support yourself so that you actually have four points of support as you climb, which is one better than the three points of support needed for safety. Find them at Target and Walmart.

Chisels: When you are hammering on a rock using a chisel you can miss hit and wind up breaking your hand rather than the rock. So go to Sears and get a good quality chisel with a collar.Chisels: When you are hammering on a rock using a chisel you can miss hit and wind up breaking your hand rather than the rock. So go to Sears and get a good quality chisel with a collar. Continued on page 6

NOTICE DUES ARE DUE

Dear MMLS member:
It 's that time again when you are asked to renew your membership for the year (2026) in the Midwest Mineralogical and Lapidary Society. (Membership runs from January through December each year.)

May we ask your cooperation by renewing now. Doing so will ease our Treasurer's job, save the cost of an extra mailing and assure your receipt of The Rockpile without interruption.

Just use the handy Membership Renewal Form. Complete the form, enclose your check made payable to MMLS and mail to our treasurer:

Doris Snyder
9728 Pardee
Taylor, Mi 48180

It's that easy! If you would like your membership card mailed to you,
please include a SASE.

Midwest Mineralogical Lapidary
Society Adult Dues: $20.00
Juniors (under age 18) $2.00
Yes I wish to renew my/our membership in MMLS for 2026 and continue to receive The Rockpile

Name(s)_____

Address _____

City _____

State _____ Zip _____

Phone (_____) _____

Email address _____

Dues paid after December 31st is subject to a $3.00 reinstatement fee. Add to your check.

Enclosed is my check payable MMLS for $ _ _

Would you like your Rockpile sent to you by email?
Yes_____ No_____
DO IT TODAY BEFORE YOU FORGET!!!!!

Hammers: I do not have a good cheap source for a mason's hammer, which has a square head on one end and a chisel point on the other. Eastwing product sare the best. Look for these at Lowe's, Menards and Home Depot.

Sledges: You'll find good prices on a good old-fashioned sledge hammer at Harbor Freight. If you want to upgrade to a short-handled sledge, get the Mercedes of sledges: the Wilton. Shop online or at Spartan Tool Supply.

Specimen containers: I always have on hand Ziploc bags in snack, sandwich, quart, and gallon sizes. I also keep a hunk of small and large plastic grocery bags handy. Not only are they good to put big specimens in, but you can use them as packing between specimen bags. And then there are egg cartons. You can store 12 fragile small crystal specimens in each one to protect them from damage.

Paper towels and toilet paper: Both are good for protective packing, and the latter is very handy for nature runs if you are out in the wild. Always bury or pack out litter.

Other tools: Occasionally a hand rake or hand mattock comes in handy. Look for these in the garden tool section at Lowe's, Menard's, or Home Depot.

There it is: everything that you need to collect your favorite specimens. Develop your equipment cache gradually to suit your needs. At first, you may want to stop at paper towels on the above list.

You may have noticed while reading this that a lot of collecting equipment is available at gardening stores. That is a strange coincidence because, like the gardener who harvests vegetables before they rot, as a collector you are harvesting nature's bounty of minerals before they are sent to the crusher!
From MWF News 11/25

Merry Christmas
From the Rockpile Staff

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 - $20.00 (adult), $2.00 (junior) on a year basis. Membership expires each Dec. 31.

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

STUDY GROUPS: Special-interest study groups meet monthly, September though June. Currently the following groups are active: Bead Study, Mineralogy, Wire Study is conducted on individual basis.

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.
Thou shall not break uncollectable specimens.

Midwest
Mineralogical and
Lapidary
Society of
Michigan

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OFFICIAL PUBLICATION OF MINERALOGICAL AND LAPIDARY SOCIETY
MID WEST of MICHIGAN

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

MID WEST FEDERATION

AFMS