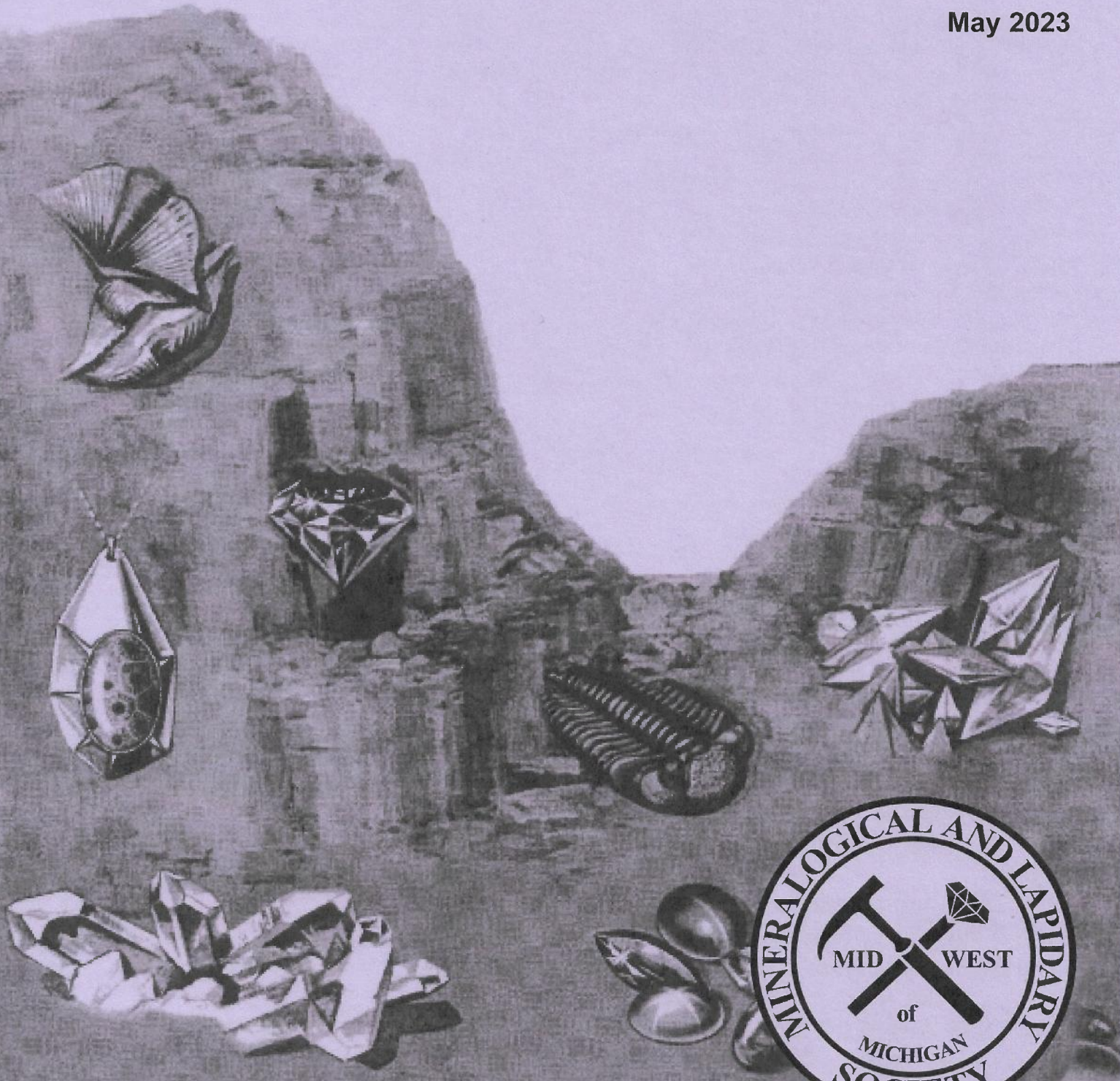


THE ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

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

May 2023



SOUTHEASTERN - MICHIGAN

Midwest Mineralogical & Lapidary Society

2023 OFFICERS

President: Mike Bomba (313) 381-8455
Vice President: Dan Gumina (313) 766-8944
Recording Secretary: Diane Kuzara (734) 675-5237
Treasurer: Doris Snyder (313) 291-2133
Corresponding Secretary: Diane Kuzara (734) 675-5237
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
Education: Dave Hendershot
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

2023 Banquet: Andrea Rinker
2023 Club Picnic: Stacey Harper
2023 Swap: Lou and Cindy Talley
2023 Super Swap: Bill Barr
2023 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

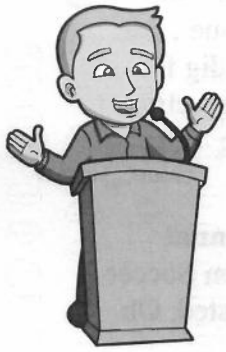
GUESTS ARE ALWAYS WELCOME

STUDY GROUPS

Lapidary: Workshop at Frank Konieczki's
Bead Study: Diane Kuzara
Mineralogy: Bill Barr at David Esch's

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
Dan Gumina 2017 - 18
Diane Kuzara 2019 -2020
Dan Gumina 2021 - 2022



From The President's desk:

Hello from your President ! I hope everyone had a good Easter season , which usually means Spring has arrived ! 16 members showed up to our Spring field trip to the Sylvania Quarry in S. Rockwood on April 8th , and the weather was perfect ! Even though the quarry used most of last year's piles ,

we still found some great specimens ! I will be donating a few for door prizes at our Banquet Saturday May 6th. Gary is working on another field trip to be revealed at the General Meeting ! So lots of activities to check out with our other rock club associates too , I'll be swapping at the St. Lawrence Rock Club in Bedford, Indiana in June. So I say get up , get out , and get involved ! Take your mind off the negativity and get with the positivity ! Hope to see you all at the Banquet !

Mike Bomba

May's Program: The May program will be a mystery program.

2023 BANQUET INFO: *Please come join your fellow rockhounds and guests for a fun evening and a delicious Italian meal at Baldo's Italian Restaurant, 20051 Telegraph Road (between King & Sibley), Brownstown, MI.*

When..Saturday, May 6th, 2023

Time..4:30pm to 7:30pm

The menu: Pan pizza, mostaccioli and sausage, meatballs, garden salad and garlic rolls.

Door Prizes! Dessert!

Be there or be square!!

The price is \$18.00 per person (guests are welcome).

Paid in advance to our treasurer, Doris Snyder, 9728 Pardee, Taylor, MI 48180.

MMLS club will cover the tax, non-alcoholic beverages and the gratuity!

Andrea Rinker Banquet Chairman

SAD NEWS

Death leaves a heartache no one can heal!

Love leaves a memory no one can steal!

We have lost another longtime member, Chuck Collins passed away on Friday, April 7th, 2023. Chuck was a member since 1987. He was born in 1934 in Iowa and grew up in Washington State. His wife, Marge tells us there will be a gathering in Chuck's memory at our SuperSwap in October at the Fairgrounds. We will inform you of those details in the September Rockpile, please watch for it. Our condolences to Marge and the Collins family.

WELCOME NEW MEMBERS:

Patricia MacDonald	Reinstatments:
Ewen MacDonald	Lee Moldovan
Kit Howard	Tony West
	Karen St. Martin

REMBER BEFORE TRAVELING A GREAT DISTANCE CHECK THAT THE EVENT IS STILL GOING ON!!!!

Dates to Remember!!

May 1st, 15th & 17th Lapidary Work Shop 2009 W. Michigan Ave., Ypsilanti, Mi. 7pm. to 10pm.
Space is limited so please call Frank Konieczki 734-323-2218 before attending.

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

May 6th MMLS Banquet Saturday at Baldo's Restaurant - See Article on page 1.

May 12th Rockpile deadline for June

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

May 16th General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 7:30 pm

May 18th Mineral Study Group Will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, MI. At 7:30 pm. BEFORE ATTENDING CALL TO MAKE SURE THE GROUP IS MEETING!

June 1st & 15th Bead Study group will meet at the Kuzara's 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237

June 5th, 19th & 21st Lapidary Work Shop 2009 W. Michigan Ave., Ypsilanti, Mi. 7pm. to 10pm. Space is limited so please call Frank Konieczki 734-323-2218 before attending.

June 15th Mineral Study Group Will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, MI. At 7:30 pm. BEFORE ATTENDING CALL TO MAKE SURE THE GROUP IS MEETING!

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

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

Sister Club Events:

May 5-7—KALAMAZOO, MICHIGAN: Annual show; Kalamazoo Geological and Mineral Society; Kalamazoo County Expo Center, 2900 Lake Street; University; contact Dave Haas, (269) 625-5909; Email: stonehouserock@cs.com; Website: kalamazoorockclub.org

May 6 & 7 Cincinnati Mineral Society Annual Show Contact: Terry Huizing; tehuizing@fuse.net When Sat May 6 & 7 Where Convention Center, 11355 Chester Rd., Sharonville, Ohio

May 13—KITCHENER, ONTARIO: Annual

show; Kitchener Waterloo Gem & Mineral Club; The Kitchener Auditorium, 400 East Avenue ; Sat. 10-4; Free; Rocks, minerals, fossils, Gem dig for children, Local dealers, beads, gemstone jewelry; contact Donna Hollander, (519) 571-1418; Website: <https://kwgmc.com>

May 20 & 21 Parma Lapidary Club Annual Show Contact: parmalapidary@yahoo.com Soccer Sportsplex, 31515 Lorain Rd., North Olmsted, Oh. 440700

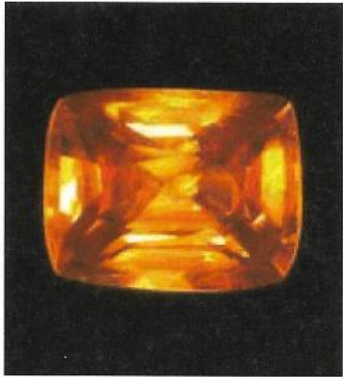
June 3 & 4 State Line Gem & Mineral Society Annual Show Contact: Sherman Kardatzke; sakardatzke@gmail.com Junior Fair Bldg, County Fairgrounds, 8514 State Route 108, Wauseon, OH

June 10 Indian Mounds Rock Club Mineral Swap Contact Kreigh Tomaszewski; kreigh@gmail.com . Where Woodland Drive-In Church, 2600 Brenton Rd. SE, Grand Rapids, Mi 49546

June 23-25—BEDFORD, INDIANA: Annual show; Lawrence County Rock Club; Lawrence County Fairgrounds, Highway 50; Fri. 10-6:30, Sat. 9-6:30, Sun. 10-4; Free & free parking; 58th Annual Gem, Mineral Fossil Show contact Kathy Shaffer, (812) 929-5367; Website: www.lawrencecountyrockclub.org



ONE OF THE RAREST MINERALS
KYAWTHUITE

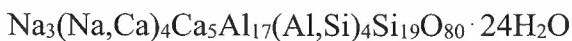


Kyawthuite is a rare mineral[2] with a simple formula: $\text{Bi}^{3+}\text{Sb}^{5+}\text{O}_4$. [3] It is a natural bismuth antimonate. Kyawthuite is monoclinic, with space group $I2/c$, and is isostructural with clinocervantite, [2] its trivalent-antimony-analog

ue. [4] Kyawthuite is also an antimony-analogue of clinobisvanite. [5] Kyawthuite was discovered in the vicinity of Mogok in Myanmar, an area famous for its variety of gemstone minerals. [6] Only one sample of the naturally occurring form of this mineral has been found and is stored at the Natural History Museum of Los Angeles County. [7]

From the Internet Wikipedia

The Michigan Mineral Beginning with the Letter T: Thomsonite



A zeolite. It is found in vesicles of basalt. In the copper country, it usually occurs as an amygdale filling but also is found in veins. It is usually not closely associated with the copper.

Color: Colorless, white, beige and pink.

Hardness: 5 - 5.5 on the Mohs scale.

Occurrence: Alger, Houghton and Keweenaw Counties.

From the Internet and The Mineralogy of Michigan by E. Wm. Heinrich

Ocean Jasper



Ocean jasper is a rare and colourful material from Madagascar. It has long been described as a variety of orbicular jasper.

From the internet Stone Mania and the picture is from the internet.

NICKEL SILVER

by Dub & Lee Roberts

from THE T-TOWN ROCKHOUND 05/1986, via The Roadrunner 10/2020

It is with a great deal of pleasure that we contribute this article on nickel silver. It seems that so little is known about it, the use of it is not widespread. Even before sterling silver and gold began their sharp rise, we were working with nickel silver in our shop because of its durability and beauty.

Nickel silver is non-ferrous metal which consists of nickel, copper, and zinc with the nickel content being anywhere from 6% to 18%, the latter being the finest jewelry grade. This is the grade in which metal craftsmen are interested. The nickel silver that we use consists of 18% nickel, 17% zinc, and 65% copper, with a melting point of 2030 degrees. It is soldered readily with all silver solders, and because of its relatively high melting point, it can

May, 2023

take more heat during the soldering process without the danger of melting.

This is a very tough metal, and it is far more scratch-resistant than sterling silver. Anyone who has spent hours removing scratches and polishing silver appreciates this quality. Nickel silver is an "every day" metal that can really take everyday wear with a minimum of upkeep. We have found that when a piece of nickel silver is polished, it resists tarnish and keeps its luster.

At first, many people seemed to have trouble soldering nickel silver and removing the fire scale resulting from soldering. The problem in this respect can be considerably reduced by using a self-pickling flux. The purpose of flux is to clean the object being soldered, and self-pickling flux is essential for nickel silver. Even before fluxing, we always clean the nickel silver and the solder with 000 steel wool by hand. After rinsing the nickel silver and solder with clear water, we then apply self-pickling flux. This process assures an even solder flow and a minimum of fire scale. Nickel silver always requires a slightly hotter torch flame than sterling silver. Pickle the piece in Sparex and polish, either by hand or with a motor driven silver polisher.

This metal adapts itself particularly well to stamping. It holds a stamped design many years without blurring with wear. Because it is a tough metal, the stamping must be done with a heavy hammer. We use a 16-ounce ball peen hammer with a steel anvil. The Indian craftsmen in Oklahoma have developed this into a fine art. Tradition decrees that all religious vessels or jewelry used in the Native American Church be made of nickel silver. Consequently, the Indian metalworkers have put their best efforts into developing designs for this purpose as well as for the jewelry they themselves wear. This is beautifully illustrated in the book *Contemporary Southern Plains Indian Metalwork*. They make their own metal stamps to decorate the beautiful nickel silver pieces they make, not only for their church, but also for their dance costumes and the bridles and saddles of their horses.

These stamps are passed from father to son, and are unique and highly prized. Their stamps

include the aquatic spirit bird, the drum, tipi, fan, and the crescent-shaped altar.

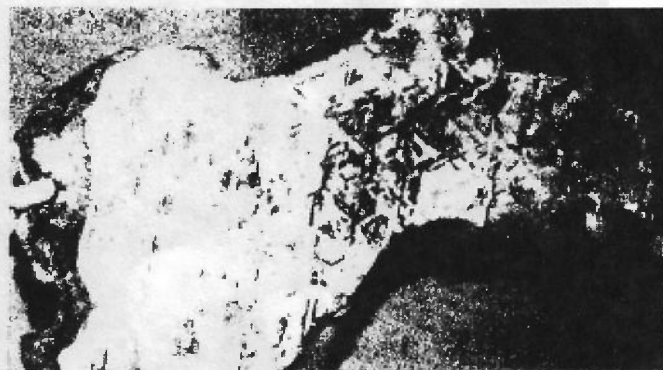
The Indians have also used nickel silver in overlay work. A particular design is cut in one sheet of nickel silver and that sheet soldered to another sheet. In this context it should be observed that the weight of nickel silver differs from sterling. For those who have worked silver, then switched to nickel silver, the tendency is to make the nickel silver piece too heavy. We always recommend to our customers that they consider a lighter gauge of nickel silver than they normally use in sterling silver.

There are bezel wires, round wires, and square wires available for jewelry. The wires and sheet that we stock are also already annealed for ease in working

If you have given up metalworking because of the price of silver, scan the advertisements for nickel silver. It can be the most rewarding metal you have ever worked. This durable metal has beauty all its own, and it has earned a place in the list of jewelry metals crafts men love to work.

From The Backbender Gazette 11/20

*50,000-year-old meteorite
could revolutionize electronics
and fast-charging.*



Scientists have discovered a fascinating, intricate tiny structure that has never been observed before while examining diamonds inside of an old meteorite,

According to researchers, the structure, which is an interlocking form of graphite and diamond, has special qualities that one day might be utilized to create faster charging or new kinds of electronics.

The "Diablo Canyon" meteorite, as it is called, struck Earth about 50,000 years ago and was initially found in Arizona in 1891. This meteorite is composed of ~90% *kamacite*, ~1-4% *taenite*, and up to 8.5% *troilite-graphite* nodules (FeS & C).

The original mass has been estimated to be 100 feet across and about 60,000 tons.

The strange diamond structures are thought to have formed and been locked into the meteorite during this event.

This meteorite contains diamonds, although not the common varieties. Most diamonds form nearly 90 miles (150 kilometers) below Earth's surface, where temperatures can reach more than 2,000 degrees Fahrenheit (1,093 degrees Celsius). The temperature and pressure at this depth cause the carbon atoms to arrange themselves into cubic shapes.

In contrast, the diamonds found inside the "Canyon Diablo" meteorite have a hexagonal crystal structure and are known as *lonsdaleite* (named after British crystallographer Dame Kathleen Lonsdale, the first female professor at University College London). These kinds of crystals, it has been discovered, can only form at incredibly high pressures and temperatures.

Scientists have replicated similar structures, but they are usually only *found in* meteorites

Scientists have successfully made *lonsdaleite* in a lab - using gunpowder and compressed air to propel graphite disks 15,000 mph (24,100 km/h) at a wall - *lonsdaleite* is usually formed only when asteroids strike Earth at enormously high speeds.

With regards to the "Diablo Canyon" meteorite diamonds, the scientists noticed an unusual phenomenon while analyzing the *lonsdaleite* in the meteorite. For example, they discovered growths of another carbon-based substance called graphene interacting with the diamond instead of the pure hexagonal formations they had anticipated.

These growths, called *diaphites*, take the appearance of an especially fascinating layered pattern inside the meteorite. "Stacking faults" between these layers indicate that the layers do not line up precisely, according to the researchers' statement.

The discovery of *diaphites* in meteoritic *lonsdaleite* raises the possibility that this resource is widely accessible because it can be found in other carbonaceous materials, according to the researchers' findings. The discovery also improves the researchers' understanding of the temperatures and pressures required to build the structure.

Graphene is made of a one-atom-thick sheet of carbon, arranged in hexagons. The material has numerous potential applications, even if research on it is still in its early stages.

It could one day be used for more precise medical treatments, smaller electronics with lightning-fast charging speeds, or faster and bendier technology, the researchers said, because it is both as light as a feather and as strong as a diamond, transparent and highly conductive, and 1 million times thinner than a human hair.

From the MGMS GEM NEWS 9/22

Just What Is A Lagerstätte?

Author: Ashley Strack

I Need A Lagerstätte! And Other Phrases To Excite Both Paleontologists And Alcoholics

A lagerstätte (german for "storage place") in paleontological terms is a site of exceptional fossilization, in which soft tissue preservation and other highly detailed remains can be retained and recovered. For instance, the famous Burgess Shale, from which many Early Cambrian life forms were discovered and described, is a great example of a

May, 2023

lagerstätte. Another example would be the exceptionally well preserved Green River Formation of Wyoming, which shows exceptional preservation of soft tissue in the lives of a variety of organisms of the Eocene epoch; *mainly fish*, but some exceptional small vertebrates such as lizards, birds, and small mammals as well.

Lagerstätten can form in a variety of ways, mainly dependent on the environment and minerals involved in the fossilization process, and the time period in which it occurred. The majority of lagerstätten form when organic remains end up preserved in a way where oxygen cannot reach it. There are two major forms of lagerstätte preservation, with those being konzentrat-lagerstätten and konservativ-lagerstätten.

konzentrat-lagerstätten are areas of high concentration of fossil remains, places like bone beds where a lot of animals died all at once or repeatedly in roughly the same spot. Such locations are usually imprecise as far as the temporal range they cover, and contain mainly disarticulated remains. However, they also usually contain a high quantity of remains, from a wide variety of organisms, meaning that they are great insights to the general ecology of a region over a long period of time. The La Brea Tar Pits are a great example of a Pleistocene epoch konzentrat-lagerstätte, showing an abundance of large mammalian megafauna fossils across the time period, such as mammoths and giant ground sloths.

On the other end are konservativ-lagerstätten, which preserve incredible detail of both the diversity and abundance of organisms in a relatively precise time frame. Konservativ-lagerstätten preserve soft-bodied, typically hard-to-fossilize organisms like invertebrates with the same detail that they preserve more typically abundant organisms. The Burgess Shale falls into this category, and from it and discoveries like it, much has been learned about the cambrian explosion and the early radiation and adaptation of life.

Methods Of Preservation In general, preservation is best when certain conditions are **met**

shortly after the organism dies. For one thing, the organic remains should be covered quickly by sediment to remove the threat of post-mortem predation. Oxygen also accelerates microbial activity that can distort and damage remains, so preservation in oxygen poor conditions makes for excellent preservation. Lastly, diagenesis, or the process by which the organic material is replaced by minerals, should begin very quickly after death. If all of these conditions are met, it is likely a fossil will form with fantastic preservation. Typically, for a lagerstätte to form like this, there needs to be a fairly fixed part of the environment that lends itself to preservation, like the consistently fine-grained and anoxic mud at the bottom of the lakes that comprise the Green River formation. There are many kinds of preservation, however, and sometimes a lagerstätte can be formed from a rapid dying event, such as a sandstorm or a flood covering a large group of organisms.



A fossilized *Triarthrus trilobite* from the Beacher's Beds lagerstätte in New York. An anoxic deposition environment allowed for the preservation of soft parts not typically found on trilobite fossils.

From the internet FOSSILERA

It cracks me up
when people blow
their noses, they look
into their tissues to
see what comes out,
I mean what do they
expect? .. Diamonds?

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 (1) 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 through 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/mw11index.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 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.

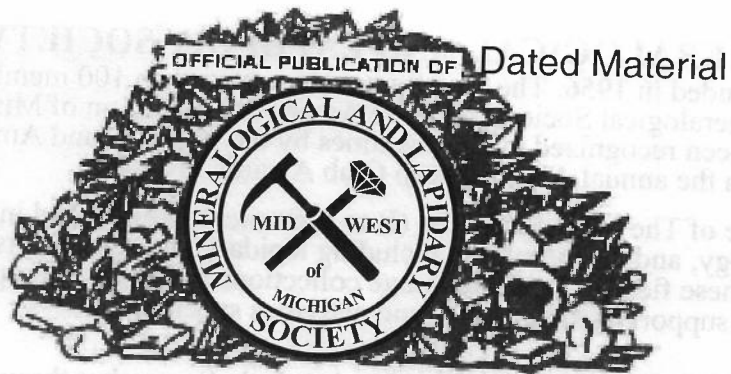
Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.

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

EDITOR
20281 THOMAS
BROWNSTOWN, MI
48183



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



Midwest
Mineralogical and
Lapidary
Society of
Michigan
EDITOR
20281 THOMAS
BROWNSTOWN, MI
48183