

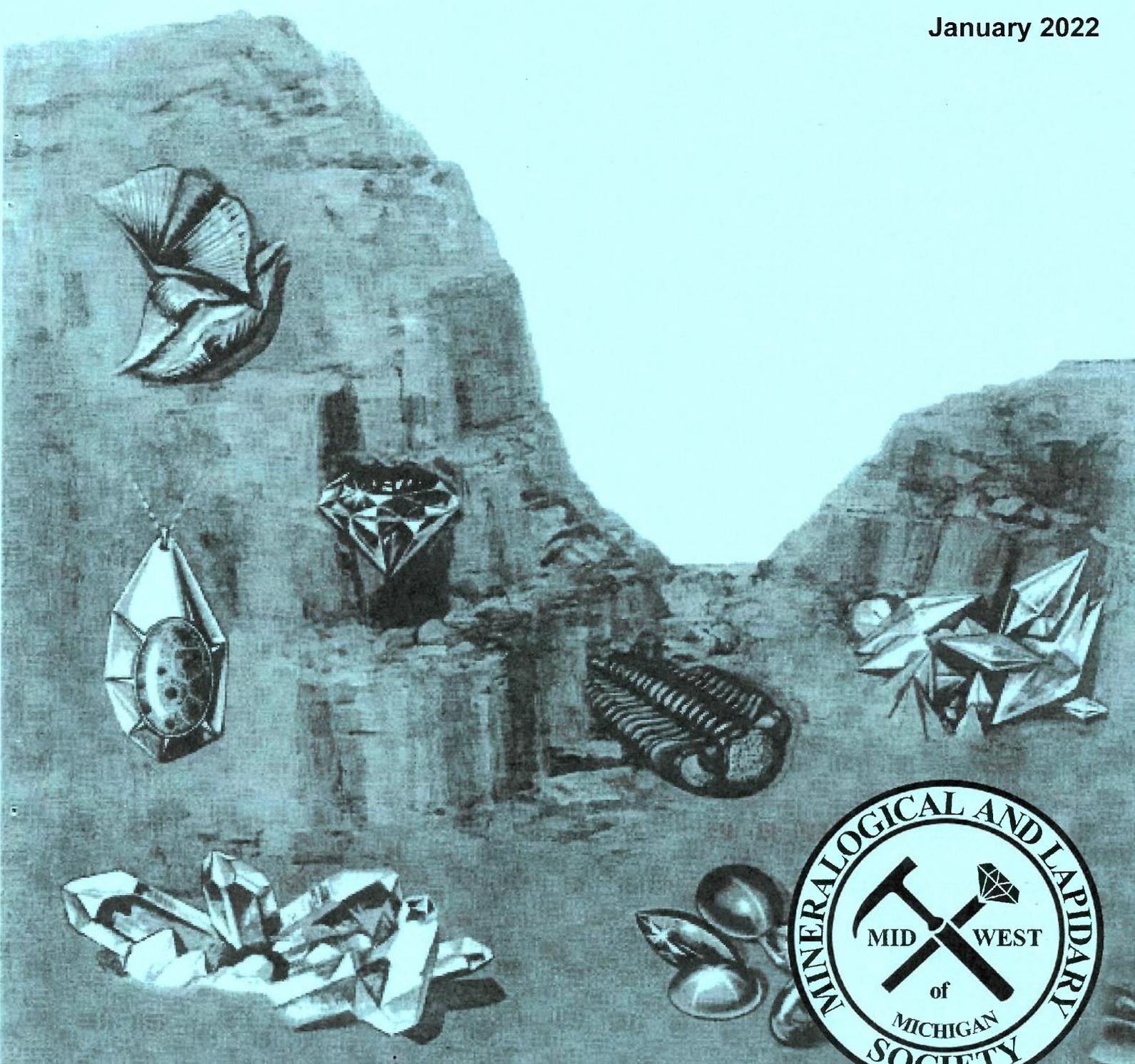
THE

ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

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

January 2022



SOUTHEASTERN - MICHIGAN

Midwest Mineralogical & Lapidary Society

2022 OFFICERS

President: Dan Gumina (313) 766-8944
Vice President: Mike Bomba (313) 381-8455
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

2022 Banquet: Dan Gumina
2022 Club Picnic: Stacey Harper
2022 Swap: Lou and Cindy Talley
2022 Super Swap: Bill Barr
2022 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



From The President's Desk:

Hello Rockhounds:

It's January, a new beginning to another year- 2022. It's a time to reflect on the saying" goodbye to the last year and all it's faults and disappointments." It is also a time when we try to carry on and build our strengths and rely on our character.

We didn't have many club activities , fewer meetings and less attendance than previous years. So I would hope that those projects and agendas will continue to be our vision. Let's make new discoveries together again . Now if you have paid dues for this year, we thank you. If you haven't, you may miss out on what this club has always maintained, a place to share the hobby , share the treasures and rewards of members and to enjoy just the chance to be educated about all those rocks and creative outlets, thoughts, and a few prayers for a Good Year! Join us again!

President Dan.

January Program:

Continuation of the video "Treasures of the Earth on metals".

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

Dates to Remember!!

Jan. 3rd , 17th & 19, 2022 Lapidary Work Shop
2009 W. Michigan Ave., Ypsilanti, Mi. 7pm. to 10 pm. Space is limited so please call Frank Konieczki 734-323-2218 before attending.

January 6th Bead Study Canceled!!

Jan. 20, 2022 Bead Study group will meet at the Kuzara's 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237.

Jan. 14, 2022 ROCKPILE DEADLINE

Jan. 18, 2022 Board Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6 pm.

Jan. 18, 2022 General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 7:30 pm.

Jan. 20, 2022 Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, Mi. At 7:30 pm.

Feb. 7th, 21st & 23rd , 2022 Lapidary Work Shop
2009 W. Michigan Ave., Ypsilanti, Mi. 7pm. to 10 pm. Space is limited so please call Frank Konieczki 734-323-2218 before attending.

Feb. 3rd & 17th , 2022 Bead Study group will meet at the Kuzara's 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237.

Feb. 11th , 2022 ROCKPILE DEADLINE

Feb. 15th , 2022 Board Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6 pm.

Feb. 15th , 2022 General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 7:30 pm.

Feb. 17th , 2022 Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, Mi. At 7:30 pm.

Mar. 26th, 49th ANNUAL METRO ROCK SWAP HOSTED BY THE MIDWEST MINERALOGICAL & LAPIDARY SOCIETY at St. John's Lutheran Church, 13115 Telegraph Rd. Taylor, Mi. For reservations and information call Lou Talley 734-837-8920

SISTER CLUB EVENTS

Mar, 18-20—JACKSON, MICHIGAN: Annual show; Michigan Gem and Mineral Society; Keeley

January, 2022

Park American 1 Credit Union Event Center, 200 W. Ganson St., 200 W. Ganson St.; Fri. 10-7, Sat. 10-6, Sun. 11-5; Sally Hoskin, MI, (517) 522-3396; Email: main@mgmsrockclub.com; Website: <http://mgmsrockclub.com/annual-show.html>

Mar. 23-24—TROY, OHIO: Annual show; Miami County Gem & Mineral Club; Miami County Fairgrounds, 650 N. Co Rd 25A; Sat. 10-6, Sun. 10-4; Dewey Buck, PO Box 885, Troy, OH 45373, (937) 308-3012; Email: deweybuck12@gmail.com; Website: Dewey Buck

Mar. 23-24—CUYAHOGA FALLS,, OHIO: Show and sale; Summit Lapidary Club and Akron Mineral Society; Emidios Expo Center, 48 E Bath Rd ; Sat. 10-6, Sun. 10-5; contact Evelyn Tryon, 2028 Tallmadge Rd, Kent, OH 44240-6806, (330) 673-9664; Email: gemboree76@gmail.com; Website: Summit Lapidary Club, Akron Mineral Society and Gemboree Network

MINERALS FOR SALE this appeared in the Michigan Mineralogical Society November Conglomerate.

Jim and Pat Rives are looking to sell much of their lifetime collection of Minerals and Fossils. They have a large collection of many items that they have purchased and self-collected (minerals and fossils) over their years of marriage.

They wish to share all their hard work with the local clubs. You can set up an appointment by giving them a call at 248-879-6641. No one can just show up and ask to come in, as they are concerned about Covid. They will need to speak with you first and masks are required! Any previewing of the collection and person-to-person sales will need to have an appointment set up. Cash and checks will be accepted, but no credit cards at this time.

The Michigan Mineral Beginning with the Letter E: Enstatite MgSiO₃

Enstatite is a mineral; the magnesium endmember of the pyroxene silicate mineral series enstatite (MgSiO₃) – ferrosilite (FeSiO₃). The magnesium rich members of the solid solution series are common

rock-forming minerals found in igneous and metamorphic rocks. The intermediate composition, (Mg,Fe)SiO₃, has historically been known as hypersthene, although this name has been formally abandoned and replaced by orthopyroxene. When determined petrographically or chemically the composition is given as relative proportions of

enstatite (En) and ferrosilite (Fs) (e.g., En₈₀Fs₂₀)



Gem quality enstatite from Myanmar (size: 2.4x1.0x0.8 cm).

Hardness: 5 -6 on the Mohs scale
Color: White, grey, yellow, green, or brown, colorless in thin sections
Occurrence: Dickinson, Genesee, Iron and Marquette Counties.
 From the Internet Wikipedia

The Birthstone for January is: Garnet

Garnet is the traditional January birthstone, it symbolizes faith, fidelity, and true friendship. The name is derived from the Latin word for pomegranate due to its rich red color. In the past, the garnet was worn for protection and extra boldness in battle or while traveling and as a guard against poison. The stone was a favorite of Vikings and is often discovered among unearthed Viking jewelry. Medieval medicine believed the garnet reduced inflammation or fever. It was also thought to bring sleep and wealth to the wearer.
 From the internet



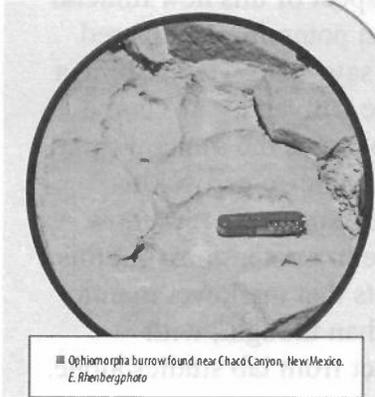
“In the New Year, never forget to thank to your past years because they enabled you to reach today! Without the stairs of the past, you cannot arrive at the future!”
 – Mehmet Murat ildan

Ophiomorpha:

EVIDENCE OF PREHISTORIC GHOSTS?

By Elizabeth Rhenberg, Visiting Assistant Professor of Geology, Earlham College

Since the Permian, strange trace fossils have been found in the sandstones representing beach facies (the character of a rock expressed by its formation, composition, and fossil content). These trace fossils are cylindrical tubes that form vertical burrows and branch extensively within these rocks. The sides of



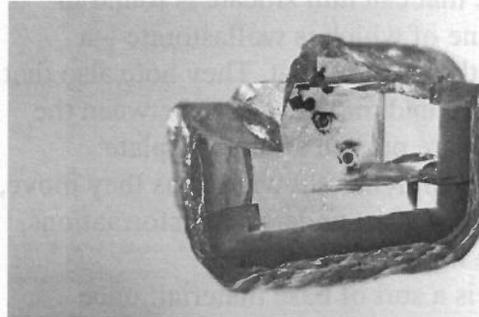
the burrows have a bumpy texture, as if the animal had built it with bricks. What strange creatures made these traces?

In truth, these burrows, known as Ophiomorpha, are evidence that a particular animal, the ghost shrimp, has been living quite happily in the high surf zone since before the dinosaurs. Trace fossils are evidence of behavior, and though it is not the exact same animal that lives today, they were close relatives. The vertical burrows are indicative of a high energy environment, where the animal would retreat to when tide was high. At low tide, the animal could leave its burrow and safely look for food. The bumpy texture is due to the ghost shrimp reinforcing the burrow walls with pellets, which is a polite way to say it lined its home with its own feces.

-From MCGAM Oct. 2019
From THE STRATA DATA 11/19

Diamond Hauled From Deep Inside Earth Holds

Never-Before-Seen Mineral



The Tiny Gray Blobs of Mineral Embedded in This Slice of Clear Diamond Are the First Samples of Newly Named Davemaoite, a Calcium Silicate Perovskite Mineral That Only Forms in the Lower Mantle. Aaron Celestian/Natural History Museum of Los Angeles County

This mineral shouldn't exist on Earth's surface. But researchers found it inside a diamond.

A team of researchers affiliated with a host of institutions in the U.S. has found a sample of a mineral previously believed to be unable to exist in nature. In their paper published in the journal *Science*, the group describes their study of a diamond found in Orapa, Botswana and the mineral specks they found trapped inside. Yingwei Fei with the Carnegie Institution for Science has published a Perspectives piece in the same journal issue outlining the work by the team and explaining why the mineral find is important to geology.

In 1975, a team of researchers created what Fei describes as a "high-pressure phase of $aSiO_3$ "—a mineral that had been theorized to exist, but only under certain conditions. To synthesize the mineral, the researchers had to place its building materials under high heat and pressure conditions.

They noted that as soon as the pressure was relieved, the mineral immediately changed to a form of glass. This finding suggested that it was not likely that the mineral could exist in nature. That assumption has now been proven wrong, as the diamond found in Botswana contained three tiny samples of it.

Because the mineral, now called calcium silicate perovskite, can only form under extreme heat

and pressure conditions, the researchers suspect the specks they found in the diamond had to form deep below the Earth's surface—perhaps as far down as 660 to 900 km.

They note that calcium silicate is found in multiple forms, one of which is wollastonite—a mineral found in the Earth's crust. They note also that material in the crust and mantle moves between the two because rocks are pushed around by plate tectonics. Prior research has shown that as they move, minerals in the rocks often undergo transformations, but some become trapped in diamond.

Diamond is a sort of base material; once conditions arise for its formation, the resulting diamond remains intact regardless of what goes on around it. The researchers suspect a form of calcium silicate (such as wollastonite) found itself in just the right conditions to form calcium silicate perovskite far below the surface and shortly thereafter found itself surrounded by carbon that was in the process of being pressed into a diamond.

After that, the material surrounding the diamond carried it upward until it reached the surface, where it was found. The researchers have named it "davemaoite," after noted geologist Ho-Kwang "Dave" Mao.

Diamonds act like time capsules, locking in the original mineral forms on their journey to the surface. The discovery of davemaoite is not only a confirmation of its existence, but it also reveals the location of some sources of heat deep inside Earth. Although it's a calcium silicate mineral, davemaoite is also host to a rogue's gallery of different elements that sneak into its crystal structure. That includes radioactive elements such as uranium, thorium and potassium, as well as rare-earth elements. Such radioactive elements have long been thought to produce about a third of the heat circulating in the lower mantle (the other two-thirds is left over from the planet's original formation 4.55 billion years ago). By identifying the chemical makeup of davemaoite, researchers can now confirm where those elements reside.

That's because the Botswana diamond also contained a high-pressure form of ice as well as another high-pressure mineral known as wüstite. The presence of those inclusions helped narrow down the

rough pressures at which the davemaoite might have formed: somewhere between 24 billion pascals and 35 billion pascals, Tschauner says. It's hard to say exactly what depth that corresponds to, he adds. But the discovery directly links heat generation (the radioactive materials), the water cycle (the ice) and the carbon cycle (represented by the formation of the diamond itself), all in the deep mantle, Tschauner says.

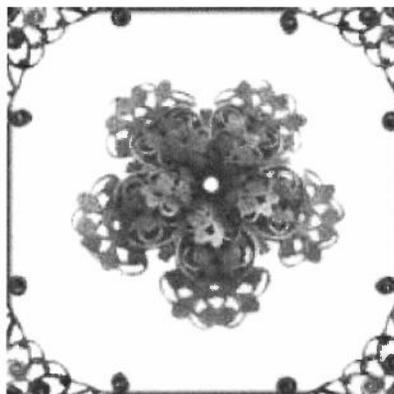
Another intriguing aspect of this new mineral is that it's surprisingly rich in potassium compared with laboratory predictions, says Sang-Heon Shim, a geophysicist at Arizona State University in Tempe. Most experimental efforts to create the mineral came up with "nearly pure calcium silicate perovskite," Shim says. Scientists can only speculate right now what the source was for the extra potassium, but this unexpected composition hints that the lower mantle may be a more motley mix than thought, with complexity difficult to predict from lab studies alone.

The study was published in the journal Science X Network.

From the internet GeologyIn

Filligree—bench tips from Brad Smith

One of my favorite types of jewelry is filigree, and each country seems to have its own variation. I love the swirls and the detailed texture of the fine elements. Pieces I've done are generally of the Russian variety. It may look complicated but it really



is not. Start with an order of 16 or 18 ga wire and fill in the interior with swirls of the filigree. Making wire

for filigree is quite simple. Take a double strand of 24-26 gauge silver wire, twist it tightly,

and then flatten it a bit. While the basics are

straightforward, here are a few tips that will quickly make you an expert with filigree. Filigree looks best when the wire has a very tight twist. The way I do this is to start with dead soft wire and twist it until it breaks. It always seems to break on one end or the other. I like to use a screw gun, although a Foredom also works well. Be sure to keep a little tension on the wires as you twist. Then to get a real tight twist, I anneal the wire and twist it a second time until it breaks. The final step in prepping the filigree wire is to flatten it slightly with a planishing hammer or rolling mill. The amount of flattening is a personal preference. I like to reduce the

diameter about 25%. The wire will be quite stiff at this point, so it's best to anneal it again before starting to make the filigree shapes. More Bench Tips by Brad Smith are at facebook.com/BenchTips/ or see all Brad's jewelry books at Amazon Brad Smith From the T-Town Rockhound

Instead of a sign
that says 'do not disturb'
I need one that says
'already disturbed
proceed with caution'



NOTICE DUES ARE DUE

Dear MMLS member:

It 's that time again when you are asked to renew your membership for the year (2022) 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 2022 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!!!!

Joe Slovak's **ROCKY** Book



Value by Edward Clay
Member of the Houston Gem & Mineral Society
Though years pass,
Each day another step in a life,
The eye is still sharp enough
to discern,
The heart still open enough
to find
The beauty created inside
some stones of the earth.

To cut, shape, and find
almost miraculous
shapes or designs
inside.

To understand and see
the trick of light and structure.
To mimic stars
or copy rainbows.
To locate by orientation
neon-bright colors
in rock.

Years have passed.
Skill learned by much practice
Has allowed
my hands to find beauty,
My eyes to see color,
My heart to find content
in being able to
return value from my existence.
From BackBender Gazette 8/16



Happy New Year from Baby New Year
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 (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 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



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