

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 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

May, 2022



From The President's Desk

Hello Rockhounds:

It's still Michigan so you never know just what our weather may be from one day to the next. Let's welcome it for field trips, outdoor visits and club events. We still have an agenda to look ahead to. We have scholarship candidates to select for the annual MMLS Club Scholarships. We have local and possible out of state

Summer field trips to consider and plan if the interest is there. This club is about you and your interests and what you would like to do and participate in as an active member. We have had our setbacks but we have had to continue on our course. We should remain productive and enjoy the times together!! I look forward to seeing you at the upcoming meetings. Remain safe and creative.

Prez Dan

May Program: Will be a continuing

video of BBC Planet earth series "Caves, Deserts and Ice Worlds". Mike

Spring Swap Report

How good it felt once again to be participating in our club's Spring Swap. All the 60 available tables were occupied with enthusiastic rockhounds selling or swapping their excess finds.

Here are some of our members I spotted having a great time behind their tables:

Lou Talley (our Swap Chairman, thank you Lou for all your hard work over these several years!).

Tom Morris, Pat Rutkowski, Doris Snyder, Mike Bomba (with one of his granddaughters and his daughter), Dan Gumina (Mr. Pres.), Gary and Janet Slominski (thanks Gary for taking care of the club table and hauling all those rocks over from storage), Bill Barr, Jim Heldenbrand (and his lovely wife), and of course Pete and myself were there too.

Former member, Tony West, rejoined the club at the swap.... Welcome back Tony!

Some others I observed taking in all the action were: Dwayne Ferguson, Lori Ackerman, Don Vernier, Louis Tluczek and his wife, Mike and Carol Nagy, Ed Smith, (and junior member grandson Luke), and David Esch, Russ Ranker, Marty Povirk and Dan's nephew Steven.

Our webmaster, Stacey Harper was there , taking photos. Thank you Stacey! If I have missed

anyone, I apologize. At this time, I'm doing this from memory!

Hope everyone who was there had a fabulous time.. let's do it again next year!!

Diane Kuzara

Welcome New Member:

Paul Randazzo

Welcome Back:

Tony West

Death leaves a heartache no one can heal,

Love leaves a memory no one can steal:

Shirley Gumina, Dan Gumina's mother passed away on March 28, 2022 at the age of 97. Our condolences to the entire Gumina family!

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

Dates to Remember!!

May 2nd, 16th & 18th 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.

May 5th & 19th Bead Study group will meet at the Kuzara's 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237.

May 13th ROCKPILE DEADLINE

May 17th Board Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6:30 pm.

May 17th General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 7:30 pm.

May 19th Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, Mi. At 7:30 pm.

June 2nd & 16th Bead Study group will meet at the Kuzara's 20281 Thomas, Brownstown at 7pm. Diane Kuzara 734-675-5237.

May, 2022

June 6th, 20th & 22nd 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.

June 16th Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor, Mi. At 7:30 pm.

June 17th ROCKPILE DEADLINE

June 21st Board Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 6:30 pm.

June 21st General Meeting will be held at the Democratic Club of Taylor, 23400 Wick Rd., Taylor at 7:30 pm.

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

SISTER CLUB EVENTS

April29-May1—KALAMAZOO, MICHIGAN: Annual show; Kalamazoo Geological and Mineral Society (KGMS); Kalamazoo County Expo Center, Lake St contact David Haas, (269) 370-3656; Email: hshardware@cs.com; Website: kalamazoorockclub.org

May14-15—NORTH OLMSTED, OHIO: Annual show; Parma Lapidary Club; Soccer Sportsplex, 31515 Lorain Ave, 1012 Chippewa St; Door prizes, Live demos, Exhibits ; contact Marty Lamparyk, (440) 567-6731; Email: jmlampa@gmail.com

June3-5—WAUSEON, OHIO: Annual show; State Line Gem & Mineral Society; Fulton County Fairgrounds, 8514 SR 108, Wauseon, OH, contact Sherm Kardatzke, 1355 W. Maumee, Adrian, MI 49221, (517) 673-5487; Email: sakardatzke@gmail.com; Website: statelinegms.com

June11-12—MANSFIELD, OHIO: Annual show; Mid-Ohio Mineral & Fossil Club; Richland County Fairgrounds, Fair Haven Hall, 750 North Home Rd; Show theme “ native copper and copper minerals”; contact Tom Kottyan, (419) 561-3595; Email: themineralhouse@netzero.net; Website: rrls.webs.com

June24-26—BEDFORD, INDIANA: Annual show; Lawrence County Rock Club; Lawrence County Fairground, Hwy 50;contact Kathy Shaffer, (812) 671-8704; Website: lawrencecountyrockclub.org

The Birthstone for May: Emerald
May Birthstone Meaning, Significance and Symbolism Of Emerald

Emerald, often coveted by royalty since time immemorial, is the birthstone for those born in the month of May. Its shimmering hues of green symbolize renewal of life and revitalization, akin to the verdant hues of the Spring season that reaches its peak in the month of May. From the Internet



The Michigan Mineral Beginning with the Letter I

Ilmenite FeTiO₃

Ilmenite is a titanium-iron oxide mineral with the idealized

formula FeTiO₃

It is a weakly magnetic black or steel-gray solid. Ilmenite is the most important ore of titanium[5] and the main source of titanium dioxide, which is used in paints, printing inks,[6] fabrics, plastics, paper, sunscreen, food and cosmetics.

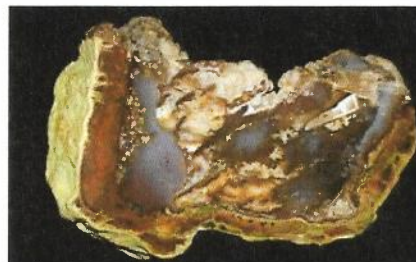
Color: Iron-black, Gray with brownish tint in reflected lighted

Hardness: 5 - 6 on the mohs scale

Occurrence: Dickinson, Genesee, Gratiot, Houghton, Iron and Keweenaw Counties

Agatized Wood by Roger K. Pabian

Agatized wood is a very popular medium for the gem cutter. There are several reasons for this. It is common and occurs in almost every state in the Union as well as most of the Canadian Provinces and



most areas of Mexico. Some fine examples of agatized wood are now being collected in Brazil. Most agatized

wood is inexpensive. Much of it is very colorful, but choice gems of agatized wood are still few and far between. There are two grades of wood that really concern the lapidary. The most sought after pieces are complete limb sections that are commonly called rounds. Some areas are well known for the many fine examples of wood rounds that they produce. Eden Valley in Wyoming has been known for many years. There one finds a black wood that has a blue or gray agate filling fractures within the rounds. This wood may contain some calcite and most of this is highly fluorescent. Complete logs up to several feet in length have been found here. The wood occurs in Eocene age strata. The petrified forest in Arizona is well known to almost everybody. Although the wood there is protected, similar varieties are found on some of the private ranches in the area and some of these areas are open to fee collecting. The wood here includes some very rare varieties such as *Woodworthia* and it is all found in a Triassic age rock unit called the Chinle Formation. Some other examples of petrified woods have been collected near Escalante, Utah. These woods are strikingly similar to the Arizona woods, although yellows are more common than reds here. McDermitt, Nevada is well known to wood buffs. There one finds some fine logs that vary from a tan on the outside to a dark brown on the inside. Such wood has been offered for sale by a number of dealers at a number of shows. Cherry Creek in Oregon is well known for fine petrified wood. Much of this is very colorful and fine rounds are not uncommon. Much of this wood is preserved in Miocene age volcanic rocks. Associated with petrified wood one can find such things as seeds, cones, and leaf imprints. The latter occur in very fine-grained sediments, whereas the former can be found in sand and gravel sized sediment fractions. Nebraska has a great deal of petrified wood. Some of this occurs in place. Some fine black wood occurs in the Chadron Formation of Oligocene age in Sioux and Dawes counties. This wood can be bleached in a commercial chlorine bleach to show a wood structure and restore a woody color. Late Miocene age strata exposed along the Niobrara and

Republican rivers has yielded some very fine examples of wood rounds. Much of this wood is opalized and much of it is difficult to polish even if it is not very hard. Streams flowing from western sources have transported a great deal of fossil wood into Nebraska. Brief stops on gravel bars found in almost all of Nebraska's streams will usually yield an example of petrified wood. Fine examples can be found in the Loup, Republican, Niobrara, and Platte River drainage systems. Ancient streams are known from the terraces that they have left high on modern day hilltops. These terraces are often more productive than the modern day river bed. Some excellent examples of agatized woods have been found in the terraces of Lodgepole Creek and the South Platte River in Deuel County, near Chappell. The wood found there may include such varieties as palm, cottonwood, oak, or rather, forms that are ancestral to these. An occasional cycadophyte can be found there.

Source: *The CMS Tumbler*, Feb 2022; via *The Pick & Shovel*, Spring 2020; via *The Pick & Shovel*, May 1983. MICHIGAN MINERALOGICAL SOCIETY CONGLOMERATE February 2022

47 Million-Year-Old Fly Found With A Full Belly

For The First Time, We've Examined The Stomach Contents of a 47-Million-Year-Old Fly

Scientists have found a 47-million-year-old fossilized fly with a bloated belly absolutely full of pollen.

The discovery is the first direct evidence that some species of ancient tangle-veined flies once fed on the microspores of several different species of subtropical plant.

It was not the fly itself that caught the scientists' attention, but its bulging abdomen suggesting it was still full with the fly's last food intake. Surprisingly, analysis of the stomach content revealed it was full with pollen from different plants. The fossil pollen from the fly's stomach was used to reconstruct the ancient environment inhabited by the fly, the biotic interactions between plant and fly, and

the fly's behaviour during feeding.

Flies as pollinators

Today, bees, butterflies and bumblebees are the typical pollinators, which are also known to feed on pollen. That flies also play an important role in pollination is rarely addressed. "The rich pollen content we discovered in the fly's stomach suggests that flies were already feeding and transporting pollen 47 million years ago and shows it played an important role in the pollen dispersal of several plant taxa," says Fridgeir Grímsson from the Department of Botany and Biodiversity Research of the University of Vienna. "Flies were major pollinators in ancient (sub-)tropical equivalent ecosystems and might even have outshined the bees," the scientist concludes.

Short-distance flights for food

The extracted pollen was dominated by grains of *Decodon* (waterwillow) and *Parthenocissus* (virgin ivy). Today, the waterwillow is a sub-shrub growing in wetlands and the shallows of lakes, suggesting open low canopy habitat. The co-dominance of virgin ivy also suggests that the fly fed on plants growing at the forest margin surrounding the ancient Messel lake. "It is likely that the fly avoided long-distance flights between food sources and sought pollen from closely associated plants," says Grímsson.

The above story is based on Materials provided by University of Vienna.



A 47-million-year old fossil belonging to a previously unknown species of fly was found at the Messel Pit in central Germany
From The internet GeologyIN

American Federation of Mineralogical Societies

An Eighth Continent?

Matthew Lybanon, Editor MAGS Rockhound News,
11-12/2021

About 3,500 feet under the south Pacific sits a piece of land adjacent to New Zealand 2 million square miles in size about half as big as Australia. But scientists can't agree on whether this submerged land mass a collection of submerged chunks of crust called Zealandia (or the Maori name Te Riu-a-Māui) that broke off an ancient supercontinent called Gondwana about 85 million years ago, is a continent or not. A team of geologists declared it one in 2017, but not all researchers are convinced. Nick Mortimer, a geologist from New Zealand's GNS Science who led the 2017 group, explains that a continent should have clearly defined boundaries, occupy an area greater than 1 million square kilometers, be elevated above the surrounding ocean crust, and have a continental crust thicker than that oceanic crust.

Zealandia meets all those stipulations. The problem, however, was that until recently, the oldest crust and rock ever sampled from Zealandia was just 500 million years old, whereas all the other continents contain crust that is 1 billion years old or more. But a recent study found that part of the submerged continent is twice as old as geologists previously thought, which could boost Mortimer's argument. Tiny mineral grains taken from granite rocks have led to a potential breakthrough in ancient continental reconstructions. The geologists behind the recent research (published in *Geology*) looked at 169 chunks of Zealandia granite, which were found under New Zealand's South and Stewart Islands. Granite forms when magma crystallizes deep within the Earth's crust. The granites were brought to the surface by uplift of the Zealandia continent in response to earthquake activity along a plate boundary over millions of years. By extracting microscopic crystals from the granite, the team was able to determine both the age of the crystals themselves and of the crust in which they formed. The results showed that crust was once part of another supercontinent known as Rodinia, which formed between 1.3 billion and 900 million years ago far earlier than 500 million years ago. Dr. Rose Turnbull says, "...The new study has enabled scientists to place Zealandia in the 'family tree' of continents descended from Rodinia."...

References: Ringwood, M.F., et al., 2021, Phanero-zoic record of mantle dominated arc magmatic surges in the Zealandia Cordillera: *Geology*, v. 49, p. 1230– 1234, <https://doi.org/10.1130/G48916.1>
Mortimer, N., et al., 2017, Zealandia: Earth's Hidden Continent: *GSA TO-DAY*, v. 27(3), p. 27-35, <https://doi.org/10.1130/GSATG321A.1>

-Excerpts from A.F.M.S. Newsletter, Dec. 2021/Jan. 2022

From The Strata Data 1/22

Field Trip Safety

Flatirons Facets, March-April 2022

The U.S. Forest Service provides these safety tips for rockhounding field trips:

Stay out and stay alive; abandoned mines are potential killers. Rotten timbers, open shafts, toxic gases, and a lack of oxygen can be deadly.

Rockhounding is mostly a rugged and dirty pastime. Clothing, especially footwear, should be serviceable and adequate for hiking in rugged terrain, digging, and weather conditions. Boots are recommended.

Be prepared for extreme weather conditions including rain or snow at any time of the year. Temperatures in the winter can drop below 0 degrees and summertime temperatures can be over 100 degrees. Carry extra food, water, clothing, fuel and other supplies.

Always tell someone where you are going and when you plan to be back. Always wear proper protective equipment (gloves, safety glasses, etc.) when striking or breaking rocks.

Rockhounds may unknowingly create hazards through careless digging. Undermining the root of a tree is both destructive and dangerous, as it may cause the tree to fall. Tunneling through unsupported soil or under overhanging banks that may cave in on the digger are unsafe practices. Deep or steep-sided pits or trenches should be filled upon completion of digging, as they pose a hazard to both people and livestock.

Be aware that the roads leading into the digging sites may be used by heavy trucks carrying logs, gravel, livestock or other products. Travel at

your own risk. Unimproved roads can be dangerous to travel when wet, muddy or snowy. Rockhounds should inquire with the BLM or USFS about possible road closures and fire restrictions prior to visiting the rockhounding sites.

Rattlesnakes may be found in certain areas during the warm months. Watch for them in rock slides, around damp areas, under old buildings, ledges, etc. Prompt medical treatment is always advisable if bitten.

In the spring, wood ticks are found in sagebrush and timber fringe areas, where they can hang on the tips of bushy twigs and transfer to any person or animal that brushes past. Ticks can carry spotted fever and other infections. They should be removed promptly, and the bites should be treated.

Protect your pets by keeping them under control at all times.

From the AFMS Newsletter 4/2022



Water & Your Mineral Collection Part 1

There are a few minerals that can be damaged by water. Here we are not talking about water from a flood, but water that is in the air, also known as humidity.

There are some minerals that absorb water from the air. This is a process known as deliquescence. The minerals that can have this problem are salt minerals, and they include halite, sylvite, hanksite, carnallite, and epsomite. A "salt mineral" is one that can dissolve in water. When one of these minerals is left in a humid room for long periods of time, a puddle can actually form around the specimen and the mineral itself will show signs of dissolving.

I have (actually, I had) a really nice specimen of halite from California with large cubic crystals. It felt damp during the summer months, but I didn't do anything to take care of the problem. Over a number of summers, the crystals became smaller and actually began to fall off of the matrix. The whole specimen now crumbles when I touch it and the largest crystal is falling apart. The specimen had been placed on a cloth and the cloth is stained where water dripped off of the specimen.

Since humidity is the cause of the problem, your goal as a mineral collector is to store these minerals or display them in a DRY environment. In many situations, this can be accomplished by running a dehumidifier in your collection room. Homes that have air conditioning will also be dry because the air conditioner takes water out of the air.

To be very sure that these minerals will not be damaged by humidity, store them in a sealed plastic bag. This keeps the specimen sealed from the room in which it is stored. If there is a little moisture trapped in the bag, place a small amount of silica gel in its own cloth bag with your specimen in the plastic bag. The silica gel will absorb any water. Silica gel is easy to buy through any florist.

Here is an idea if you want to display your salt specimens and still protect them from humidity. Get a fish tank that is the right size for the specimens you have. Pour a layer of silica gel on the bottom of the tank. Cover the layer of silica gel with a cloth of your choice. On top of the cloth arrange any display stands you want to use and place the specimens on their stands. Place a fitted piece of glass on the top of the tank. Seal the top with window caulking from a hardware store.

NOTE: Do this in the place where the tank will be

standing. If you try to move it after you have sealed the top, the specimens may fall off of their stands! You now have an air-tight, sealed container for your specimens. The silica gel will absorb any water in the tank and the specimens will not absorb any moisture and then dissolve.

From *Mini Miners Monthly* Vol. 10 No. 9 September 2018

From *The Quarry* 11/18

A SHOP HINT MAYBE!

While paging through 'Gem Cutting Shop Helps' published by Lapidary Journal in 1964. I came across an article from the Voice, El Paso Mineral and Gem Society. It states put your gem in a little plaster of Paris. Then after it hardens you can drill through one side with out break out or chipping. I got to try this.

Interesting Tidbit

Do you know the difference between a fossil limb section and a limb cast? Some call a specimen by either name, not realizing there is a difference. A limb cast occurs when a buried limb has decayed and the resulting void was filled with agate or some other material. The cast is in the form of the original limb, but no cell or ring patterns have been preserved. A fossil limb section is a portion of petrified wood. As the wood decayed, it was gradually and completely replaced by mineral deposits, cell by cell. This, a part of the wood structure - cells & rings -has been preserved.

Author unknown, source The Petrified Digest Jun 1999. Via

Quarry Quips, sept. 2003

From *The Strata Data* 4/22

Some Thoughts Submitted By Our Own Velma Bradley

1. *When one door closes and another door opens, you are probably in prison.*
2. *To me, "drink responsibly" means don't spill it.*
3. *Age 60 might be the new 40, but 9:00 pm is the new midnight.*

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.

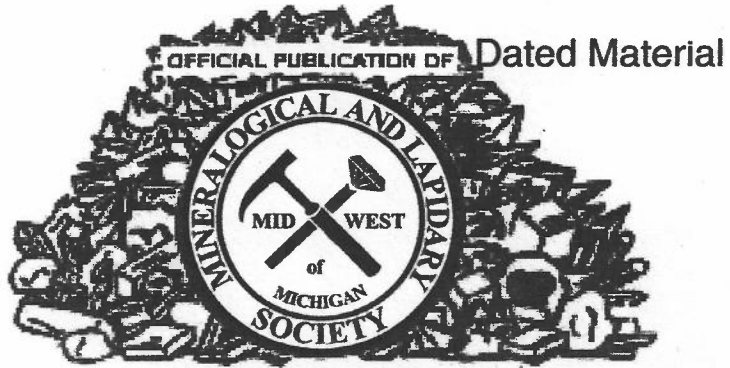
Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.

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
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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