

THE ROCKFINDER

Newsletter of the Michiana Gem and Mineral Society

Volume 48, Number 4

April, 2008

Next Meeting:

Visitors are always welcome.

Date: April 27, 2008

Doors open at 1:30.

Meeting starts at 2 p.m.

Next Month's Meeting: MAY 18!

Announcement: Sign-ups for the Grani-tech trip in May will take place at the April meeting. Get your name on the list!

Place: Our Redeemer Lutheran Church,
805 S. 29th Street (29th & Wall)
in South Bend

Program: Flintknapping by David Peltz.
Display suggestion: arrowheads or other
knapped items, flint specimens, etc.

Refreshments: Gladys Pacholke, Sr. Jeanne
Finske, Michelle Winters



UP AND COMING:

Apr. 19-20: Chippewa Valley Mineral Society show, Expo Center, Eau Claire, WI.

Apr. 26: Blossomland Gem & Mineral Society rock/mineral/fossil/etc. Swap 'n' Sell, St. Joseph-Lincoln Senior Center, 3271 Lincoln Ave., St. Joseph, MI. 10:00-4:00.

May 2-4: "Michigan Magic," Kalamazoo County Expo Center (Fairgrounds).

May 10: (Tentative) collecting Granite slabs at Granitech in Elkhart

May 17-18: Parma Lapidary Club (Cleveland), County Fairgrounds, Berea, OH.

June (date not set) Collecting at gravel quarry on Hwy. 12.

June 6-8: (Toledo) State Line show, Fulton County fairgrounds, Wauseon, OH

June 20-22: Lincoln Gem & Mineral Club 50th annual show & Midwest Federation Convention, Pershing Center, Lincoln, NE.

June 20-22: Northwest Federation Convention, Ontario, OR.

June 27-27 California Federation Convention, Venture, CA.

June 28-19: MGAGS Rockhound Seminar. Godwin H.S. Wyoming, MI (Grand Rapids)

July 10-13: Wonderful World of Agates, U. of Wisconsin Fox Valley, Menasha, WI.

July 20: Our club picnic. Potawatomi Park. Details to follow.

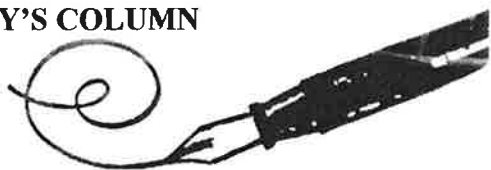
July 27-29: Bloomington show and swap, County Fairgrounds, Bloomington, IN.

Aug. 22-24: Our own Michiana Gem & Mineral Society show, 4-H County Fairgrounds, South Bend, IN.

Sept. 13-14: Geology Arts Fair, Eddy Discovery Center, Chelsea, MI.

Sept. 25-28: South-Central Federation Convention, Humble, TX.

KATHY'S COLUMN



Wow, I am quite impressed with the great attendance we have been having at the meetings. It is so good to see so many friends who have the same interest and enthusiasm regarding our hobby. And what a kick to see so many junior rockhound artists showing their talents, thanks to their leader, **Cordelia Tomasino**.

For the adults and children, last month's program of fossil cleaning given by **Dr. Julie Weiger and Rena Terrill** gave us an insight into how to clean our own collected fossils and the ones we will be collecting yet this year. It was very informative and interesting.

Speaking of **Julie and Rena**, they have graciously contributed a DVD player to our club. Now we can have up-to-date programs that are being put out in the earth science field. For the entire club, many thanks. I would also like to thank our new member **Peg VanNevel** for assisting **Pat McLaughlin** by volunteering to co-chair the club picnic on July 20. We appreciate your jumping in and helping out.

For all of you who brought in displays, this is what our hobby is all about. We all have interesting things for show and tell, and it is great for visitors and new members alike to learn from us and what they too can do with earth science and lapidary arts. Keep the displays coming.

Now I have a request to make, besides bringing in displays. With the influx of new members, guests and wonderful attendance, I would ask anyone who wishes to contribute food for our social hour, please feel free to do so. All donations are welcome. The social hour is a good chance to enjoy friendships and fellowship and, let's face it, we all like to eat.

Vice-President **David Peltz** will be heading the meeting in April. Bob and I, Pat and Tom will just be leaving the state of Texas that day from a weeklong family reunion. We are getting together with brother and sister-in-law Jim and Barb

McHugh (club members), sister Marge (club member) and sister Marilyn, who is the ultimate rockhound.

On our way home, Bob and I, Pat and Tom will be collecting quartz crystals and fluorite. Yea! I hope the collecting is good.

Isn't it nice that winter is finally over and we are enjoying the month of April? I was actually thrilled to see a robin and feel 60-degree sunshine!

I'm looking forward to seeing you May 10 on the field trip, or at the May 18 meeting. Don't forget that we meet the **third weekend** in May because of Memorial Day being the fourth weekend.

Happy spring, Kathy

MINUTES OF THE MARCH MEETING

President Kathy Miller called the meeting to order at 2:05 p.m. on March 30. In attendance were 39 members, 15 junior members and 6 guests. The Pledge of Allegiance was led by Joe Perry.

Kathy welcomed new members and guests and recognized past presidents of the club, who are Bob Heinek, Margaret Heinek (also a MWF and an AFMS past president), Don Church and Diane Gram. Don Church made a motion to accept the minutes of the last meeting as printed in the *Rockfinder*. Marie Crull seconded the motion. Motion carried.

Lana Wright gave the treasurer's report and it will be filed for audit.

Sue Brown (MWF state director) reported that the new contact people for the *MWF Newsletter* editors are Homer and Linda Eshbaugh. Their e-mail address is MWFNewsletter@wi.rr.com. Also, the 500 Earth Science Club of Indianapolis has an online newsletter on their web site.

COMMITTEE REPORTS:

EDITOR: Tom Noe sent copies of the *Rockfinder* to the MWF for the newsletter competition.

FIELD TRIP: Kathy Miller is planning a trip to Granitech in May. The exact date is not set yet.

HOSPITALITY: Pat and Tom McLaughlin noted that refreshments were furnished by Audry and Annitta Hostetler, Pat Bell and Kathy Miller.

JUNIORS: Cordelia Tomasino, chair. Kathy Miller reported that Cordelia bought two books for the juniors in memory of Kent Hoffman. Today the juniors crushed pigment and made cave paintings with the pigment.

SHOW: Marie Crull said that 13 dealer contracts have come in for the show so far.

WEBMASTER: Jim Daly asked for pictures of club activities and field trips to post on the web site. If you have any pictures, you may e-mail them to him or bring prints to the next meeting.

OLD BUSINESS:

Committee for the club picnic on July 20. Pat McLaughlin volunteered to chair the committee for the picnic. Kathy Miller read a note from long-time member Tess Miller. She enjoys reading the *Rockfinder* and keeping up on the club news.

NEW BUSINESS:

Bill Crull read a short article about the Pledge of Allegiance. Diane Gram has information on some lapidary equipment for sale. If you are interested call Diane for more information. Bob Miller made a motion to purchase a DVD player for the club. Don Church seconded the motion. Motion carried. Then Julie Wieger offered to donate a DVD player. Bill Nelsen reported on a theft of a meteorite from Joshua Tree in Lakeville. The perpetrator was apprehended. Bill made a motion that we obtain a picture of this person and keep it at the entrance table at the show. If this person shows up we can deny him entrance to the show. Marie Crull seconded the motion. Motion carried.

Sally Peltz made a motion to adjourn the meeting. Don Church seconded the motion. Motion carried.

PROGRAM: Julie Wieger and Rene Terrill demonstrated how to clean Sugar Creek type limestone fossils and club members talked about the various items they brought to the meeting.

Marty Perry, Secretary

PLEASE ADD TO DIRECTORY

Heidi Cerdas

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Alice Garwood

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269-445-3425

Linda Garwood

69750 M 103
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Rob Heinek

% 7091 E East Park Ln.
New Carlisle, IN 46552
574-654-3673

Doug and Diane Larson

3019 Lincoln Way East
Mishawaka, IN 46544
574-252-2962

Tess Miller

57021 C.R. 13
Elkhart, IN 46516-9718

Lawton Shank

7365 N. 725 E.
Howe, IN 46746
260-367-2464

Peg & Larry VanNevel and Nick

806 E. Broadway St.
Mishawaka, IN 46545
259-2466

under WINTERS (Jim) not Joe

APRIL BIRTHSTONE

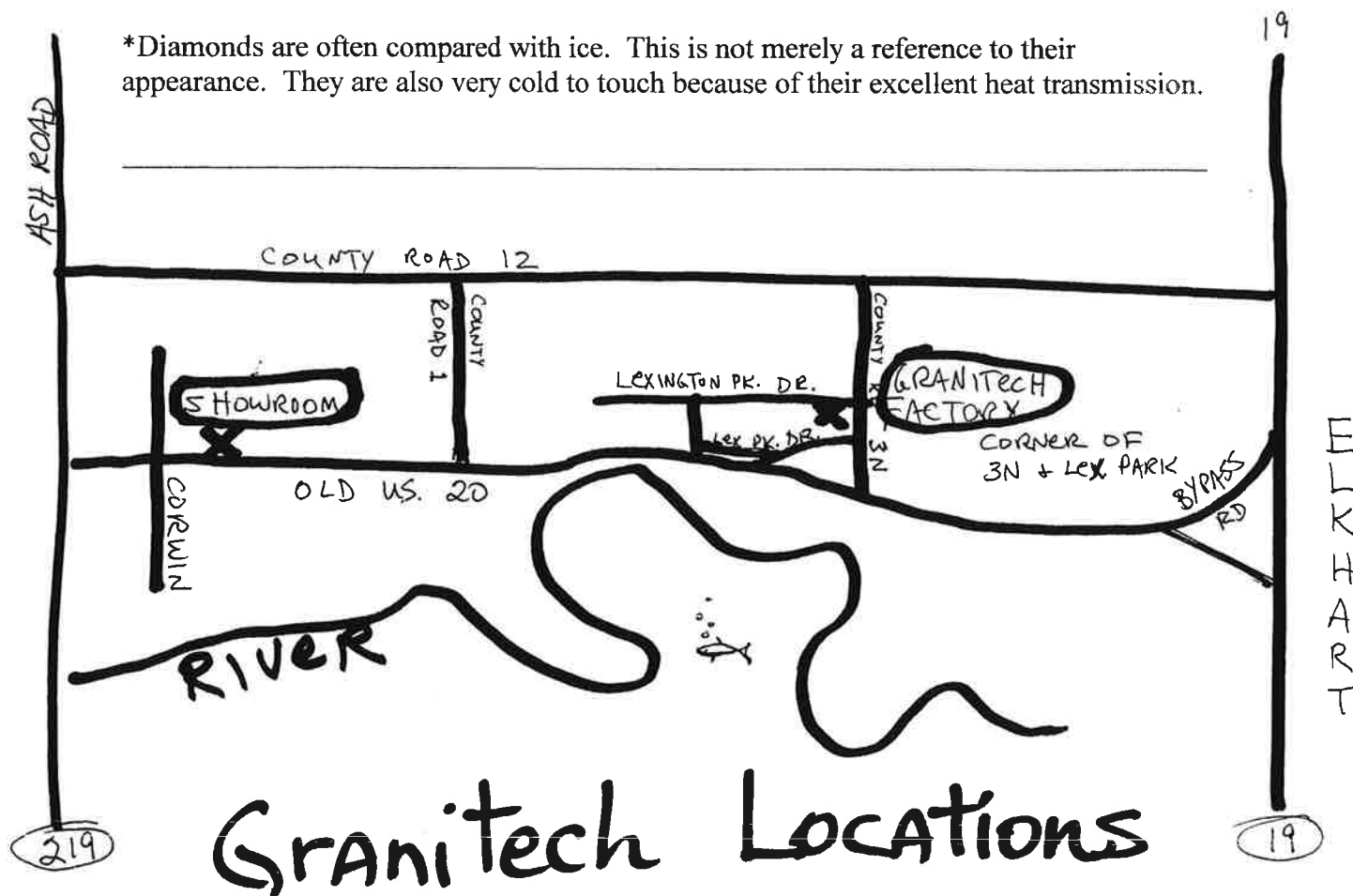
DIAMOND

From "The Gemstones Handbook" by Arthur Thomas

DIAMOND is a name derived from the Greek 'adamas' implying extreme hardness. It is the hardest natural material and the most efficient conductor of heat. In India and Brazil diamonds were recovered from alluvial deposits. The origin of the stones was to remain a mystery until the discovery of the first diamond-bearing kimberlite pipe in 1870 at Koffiefontein, in the Orange Free State, South Africa. Subsequent research established that the diamond crystals brought to the surface in volcanic pipes were formed in the upper mantle region 93 miles or more below the Earth's surface.

*The ancients believed that the bearer of a sword with a diamond set in its handle was unconquerable.

*Diamonds are often compared with ice. This is not merely a reference to their appearance. They are also very cold to touch because of their excellent heat transmission.



THE ROAD TO MAPS

by Linda Eshbaugh

Joined by our cousin Gary from Phoenix, Homer and I started out on our trek to the Mid-america Paleontology Society (MAPS) National Fossil Exposition XXX in Macomb, IL, on April 3, 2008. We were drooling at the thought of all the fossils we would see—including our “fossil friends”—and we couldn’t wait to get there!

For those of you who have never been, the MAPS show is a 3-day show and sale (Free Admission!) held at Western Illinois University around the first of April. *Only* fossils (or fossil-related items) are permitted to be sold! But those in the know come a day early to get a jump-start on shopping at the satellite show held at the Days Inn Motel. Dealers rent rooms there and sell that day and in the evenings, after show hours. There you can find rocks, minerals, antiquities, insect specimens, etc.

Friday morning, we were raring to go! The MAPS Show is heralded as the world’s largest fossil show, and we agree! Over 60 dealers from all over the world offer everything from crinoids to a vertebra from a T-rex for sale. You can find trilobites, amber, fossil fish, fossil insects, fossil coral, coprolites, museum quality casts, fossil jewelry, books, pamphlets and artwork! Plus a lot of fun stuff for the kids!

This year, Holmes Semken, emeritus professor of geoscience, University of Iowa, gave a lecture on the 2001 Tarkio Valley sloths find in Nebraska. At first I thought, ground sloth = ho-hum. But was I wrong! I could still be sitting there listening to Dr. Semken!

The owners of a property in Nebraska, with part of the West Tarkio Creek running through it, were out poking around one day, found a bone and knew they had something good! Tom and Loreta Tiemann took the find to Dr. Semken, and he pronounced the find as remains of *Megalonyx jeffer-soni*, about which very little is known. The Tiemanns and their neighbors were delighted to have the team from Iowa State University come and investigate. The dig has been progressing ever since, and producing fascinating results!

So far, they have found enough bones to be able to create a model of the sloth—and it is huge. And believed to be female! Bones from immature sloths have been found on site too! Could they have found a nursery? Only time will tell.

While dealer attendance was down some this year—no doubt due to the high cost of gasoline (\$3.44/gallon when we left Milwaukee) and a last-minute announcement from the State of Illinois regarding how sales tax was to be collected, there was still a museum’s worth of stuff to see and buy! The dealers are knowledgeable and ready to tell you about any fossil. It is like getting a free paleontology class! But the best part, we think, is getting together with our fossil friends from all over the US, and catching up.

If you get a chance to go, next year’s show will be held April 3–5, 2009. The MAPS web site is: www.midamericapaleo.org. You can also contact Tom Williams, Paleotom234@dishmail.net, 815-223-9638,

PETOSKEY STONE POLISHING

Materials Needed:

220 Grit Sandpaper

600 Grit Sandpaper

Polish

Leather Pad

Sanding Board

Petoskey Stone

Use a Petoskey stone that is beach worn and tumbled. Quarry stones will take much longer to grind down.

Place the 220 grit sandpaper on sanding board. Wet well. Rub the stone on the paper and continue sanding until the stone is very smooth and you can see the pattern and color. Continue the sanding process with your 600 grit sandpaper. This sanding should remove all the scratches from the coarse grit step. A smooth dull surface showing your pattern will now be evident.

Clean your sanding board and place the leather pad on the surface. Dampen the leather and apply a small amount of the polish so you have a creamy paste, not dry or too watery. Rub the stone vigorously in the paste and cover all areas that were sanded. Continue polishing until you achieve a mirror-like shine on the stone.

THE MINERALS THAT ATTACK YOUR CONCRETE DRIVEWAY

by Dr. Bill Cordua

(Seventh Place AFMS Advanced Adult Articles)

Those hard concrete driveways! How nice they are when first laid. Then they crack, crumble, spoil and need replacing. This is not only true of your driveway, but also of our whole concrete infrastructure ranging from stadiums to dams to interstates, which costs the U.S. an estimated \$150 billion a year. What eats the concrete? It turns out that many of concrete's foes are minerals.

Concrete consists of cement paste (a complex mixture made mostly of calcium hydroxides and calcium aluminum silicates) and aggregate (sand and gravel). The process of making the cement begins with limestone and clay. These are mixed, heated, ground and treated with gypsum. Adding water to this starts a number of chemical reactions, forming calcium hydroxides (one of which is called portlandite), calcium aluminum silicates and calcium sulfates (such as ettringite). These reactions continue for days until the cement is finally set and hard. What minerals attack this formidable material?

Ice is an obvious villain. Ice is a perfectly good mineral - inorganic, naturally occurring and possessing a crystalline structure. When water freezes to ice, it expands by about 9%, exerting tremendous force on the sides of any cracks or pores into which it has seeped. As the cracks and pores enlarge, it is easier for more water to enter.

Salt is another enemy. As you spread salt on your driveway, or as salty residue drips off your car, the salt water soaks into the concrete. As the water evaporates, salt crystals grow, forcing apart cracks. Salt can have a more insidious effect, depending on what aggregate is in the concrete. If the aggregate contains poorly crystalline silica, in the form of opal or even chert, it reacts with sodium, converting the hard silica to a hydrated alkali gel. This decreases the strength of the concrete. Since the gel occupies more volume than the original chert or opal, it further cracks the concrete and helps more water enter. By the way, Scott Wolter describes some deposits of the solidified gel material in voids in concrete that show agate-like banding. This may help us to better understand the formation of agates.

Sulfur, which occurs in soils, seawater, and acidic rain, is another enemy. Portlandite, formed during the hardening of the cement, reacts with the sulfur-bearing

water to make gypsum and more ettringite. Gypsum is soft and water soluble, degrading the concrete. Both gypsum and ettringite cause an increase in volume, cracking the concrete. The more cracks, the more water and sulfate and salt can enter. This cycle limits concrete's lifetime. Millions of research dollars are going into making concrete more resistant to these attacks. The only way to avoid this completely is to build in where water, salt and ice don't occur. The nearest surface like that is on the moon.

References: Wenk, Hans-Rudolf and Andrei Bulakh 2004. *Minerals: Their Constitution and Origin*. Cambridge University Press.

Wolter, Scott, 1996, *The Lake Superior Agate*, third edition, Burgess International Group Publishers.

Leaverite News (Jan., 2005)

ITEMS FOR SALE

Jim Whiteman (Plymouth) is selling some machinery, supplies and rock specimens on behalf of his father, Jim Sr., who passed away recently. Call or e-mail Jim if you're interested. 574-936-4197 or jnwhiteman@netzero.net.

Two MDR faceting machines, one works, the other useful for parts or it might be fixable with a new rheostat, and lots of diamond compound, faceting laps, etc., all the supplies for faceting
Spencer microscope, model 300C
Lapidary Journal magazines
Faceted stones and decorative objects in stone, cubic zirconium and glass: gemstone-size and larger in spheres and various shapes
Faceting rough in CZ, glass, semiprecious stones
Many spheres, some home-made, others bought, in alabaster, onyx, jasper, agate, petrified wood, etc. Mostly 4" and smaller.
Various crystal specimens, Bookends, Findings
Books on faceting and minerals
16" vibrating lap, 10" vibrating lap, grinding arbor
8" trim/slab saw
18" Lortone slab saw with extra blade
Rough collected on trips out west: Oregon picture jasper, agates, petr. wood, etc, Mex. coconut geodes

WORDS OF CAUTION

by John Wright, AFMS Conservation & Legislation Chair

As I research material for my articles, I find it interesting to see who is trying to eliminate or at least restrict access to public lands. I have said in the past, a few are truly concerned about the environment and sincere in their efforts to preserve areas with special interests or appeal. Most, however, are individuals or groups with a selfish or self-serving purpose. Following the money trail used to finance opposition groups is also very interesting. It would take a book to just touch on these two areas and I often get sidetracked by the pure unadulterated sham being perpetrated on the American public by these individuals and special-interest groups.

The problem we have is that federation members, like most of the American public, for the most part do not understand or cannot fathom just how dedicated and well-financed these special-interest groups are, and the gravity of what they want to do will have on our hobby and our lives. Ignorance and indifference are major assets used by these groups to dupe the public and rob them of their access to public-owned lands.

We have already relinquished many of our rights due to their intrusions and are paying for it in more ways than you think. The only good thing about being seduced into allowing our access to public lands being taken away from us is that we are in good company. A lot of the supposedly intelligent members of our government, academia, legal and entertainment professions, just to name a few, are marching right along in the parade with us.

Unfortunately, many of these esteemed individuals are unwitting puppets controlled by special interests, or use the propaganda espoused by these groups, for the notoriety that keeps them in the spotlight. Many of our elected officials go out of their way to maintain the support of special interests, or avoid offending them, and our constitutional rights are conveniently being ignored.

How do we fight these problems? The first thing we need to do is be informed about issues that could potentially affect us. I listed two great sources

other than AFMS in my article last month for obtaining information and there are many other informative sites that can be found online. Also check out the sites of the special-interest groups so that you know your competition. You might want to start with the Wildlands Project (rewilding.org) or the Yellowstone to Yukon Conservation Network (Y2Y Network). While these two organizations are primarily involved in the Northwest, there are similar groups diligently working in other parts of the country and reviewing these sites will give you a good idea of the mind-set behind these movements.

We are also a special-interest group and need to make our desires known just like our adversaries. Write and petition your elected officials. Letters to the editors and articles about your club activities published in your local newspapers can gain you recognition and support. Visit schools, put displays in your local libraries and other public facilities. In other words, let it be known that you exist, that you have rights and that you have every intention of continuing and keeping your rights for access of public-owned lands.

American Federation Newsletter (Apr., 2008)



“Look, bud, if I run across any unusual rock I’ll let you know.”

Rock Chip Reporter, (Oct., 1997)

Juniors' Page

March meeting notes: Fourteen of us tried our hands at smashing rocks to make differently colored pigments for “cave paintings.” We now know that it takes a strong arm and a good binding agent to actually make the pigment usable as paint—oils from vegetables and egg white worked but were pretty messy! We had a lovely array of artwork made from our pigments. Mastodons, mammoths, dolphins, flowers and ladies weaving graced our art papers. A big thank-you goes to the following rock “angels” for their time, donations, and bringing in rocks from their collections: Bob & Kathy Miller (turquoise, volcanic ash and various other rocks for grinding plus help with clean-up), Don Church (sulfur and garnet for grinding), Jim Daly (various “pigment” rocks from his collection), and Debra Loprete (hands-on helper).



April Meeting: Stone Age Tools & Art



Don those old clothes again since we'll be working with clay during the adult business meeting time. Clay is the mineral kaolin. Clay is soft and easily shaped when moist yet can be baked “rock” hard to create water-tight vessels, tools, jewelry, and sculptures.

We'll join the adults for the program and learn how ancient peoples made arrowheads and spear points by a process called knapping.

Show & Tell for Everybody

Do you have some rocks in your collection that might have been used as tools or weapons? How about some ancient pottery shards or beads, or maybe a clay craft you've already completed? Let's bring in those arrowheads, hide scrapers, grinding stones and various artifacts for all to see.



—Juniors' Activity Chair: Cordelia Tomasino
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