

# THE ROCKFINDER

Newsletter of the Michiana Gem and Mineral Society

Volume 48, Number 6

June, 2008

Next meeting: *the Picnic! See more details in this issue.*

**Then our show in August.** See you there!

**New and Returning Members!** Add these names to your directory:

Joyce Pyles and grandson Brian Loring  
24271 High Street  
Edwardsburg, MI 49112  
269-699-7519

Debbie and Wayne Vance  
28 Cramer Drive  
Lakeville, IN 46536  
574-784-9424

## **Michiana Rock Enthusiasts, Take Note!**

If you haven't heard about the great mineral displays and fossil treasures at Joshua Tree museum in Lakeville, be sure to get over there and feast your eyes. (You can touch some of them, too!) They specialize in meteorites, but the museum is an eye-full in many areas. A must-see!

Joshua Tree Earth and Space Museum  
106 S. Michigan St.  
Lakeville, Indiana 46536

Jewelry folks might also want to check out Rosanne's Diamonds & Gold for custom jewelry work and repairs. 505 E. Ireland Road, 574-299-1980.

## **UP AND COMING:**

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

**June 28: Club collecting field trip at gravel quarry on Highway 12. For information call David Peltz. 9 a.m., 1/2 mile west of US 12 and Mayflower, Niles.**

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

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

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

July 12 or 26: Possible return field trip to Granitech.

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

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

**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. 19-21: Club field trip to Corydon, IN, quarry for collecting all sorts of things.**

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

Oct. 18-19: Flint Rock & Gem Club show, Carter Middle School, Clio, MI.

Oct. 31-Nov. 2: Rocky Mountain Federation Convention, Tulsa, OK.

KATHY'S COLUMN



I hope everyone had a chance to enjoy the Memorial weekend. We did by planting our flowers and catching up on all things needful around the house.

Before I go on to upcoming club activities I would on behalf of Michiana Gem & Mineral Society, extend condolences to **Ed and Marsha Miller** and their family, in the passing of Ed's father from life to LIFE this past month.

It has been so great to see continued good attendance at our meetings. Between the neat activities of **Cordelia's** class with junior members and the good response of the adult members, our club is in super shape, YEA!!

COMING UP...

**June 28** good fossil collecting field trip to gravel quarry on highway 12. Any questions call **David Peltz** (269-683-4088).

**July 12** dumpster diving for beautiful granite at the Granitech factory on County Rd.3 in an industrial park (meet at 9:00 a.m.) by the gates.

**July 20**, club picnic at Potawatomi Park, meet at Pavilion 1 (Noon)

**Pat and Tom McLaughlin have the sign up sheet, please call them if you are attending, they need to know for purchasing meat and drink.**

The picnics are really fun, and for those with children the Zoo is an added plus.

At this time I would like to bring up what is needed to go on our field trips. If it is by car, there are few requirements, except we would like you to be a member of the club. There are times when we do have guests, but caution all to be careful, because of liability.

For a bus field trip (either weekend or 1 day only) the requirements are more involved.

- a.) You **must be a member** because of insurance
- b.) **Members must participate in 2 club activities**, such as attending 2 club meetings, sign up for demonstrating/giving a program at a meeting, hosting a club meeting, participating at the show by working at set up/take down, or other areas at the show where help is needed during the 3 days by signing up.

The reason I have mentioned this many folks enjoy going on our bus trips but are not aware of the requirements involved. Keep this in mind when another (hopefully next year) bus trip may come up.

Be aware, at some point this summer I will be calling you to ask your participation in helping provide some type of food for the member, dealer, demonstrator's kitchen at this year's show. This is a good thing since it gives all of us a chance to meet with dealers, demonstrators and friends while taking a break as we work at the show and enjoying good food at the same time. ☺

Under Show Chairman, **Marie Crull**, her show assistants may be calling on you in the next few months to sign up for a task to do. We have everything from the Kid's Korner, Door, Club Booth, Silent Auction, Exhibiting, etc. Please do your part to make this show a success, we need to get our name out to the public to make them aware and see how our wonderful earth science hobby really is.

I look forward to seeing you this summer at our "rocky" events,

*Kathy*

**MINUTES OF THE MAY MEETING**

President Kathy Miller called the meeting to order at 2:00 p.m. on May 18. In attendance were 27 members, five junior members and five guests. Joe Perry led the Pledge of Allegiance.

Kathy welcomed the guests and recognized past presidents of the club. 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.

**LIAISON REPORT:** David Peltz— There are new fliers for shows and other functions.

**AMERICAN FEDERATION REPORT:** Bob Miller— The AMF has a national field trip every year, open to anyone who wants to go. This year's trip is one week in Arizona. It's too late to sign up for this year's trip, so for future reference contact Bob Miller.

**MIDWEST FEDERATION REPORT:** Sue Brown— The MWF has expanded the news bulletin for local clubs and is advertising the new MWF apparel, the sales of which benefit the Endowment Fund. Go on line and read the *MWF Newsletter* for more information.

**COMMITTEE REPORTS:**

**EDITOR:** Tom Noe would welcome articles and stories from club members to publish in the *Rockfinder*.

**HOSPITALITY:** Tom McLaughlin— The meeting's refreshments were furnished by Phyllis Smallwood, Sue Brown and Diane Gram. For the September meeting it will be Patty Enos and Sally Peltz.

**JUNIORS:** The junior members are polishing Petoskey stones and making pet rocks. Club members are welcome to go to their room and see their accomplishments.

**PROGRAM:** Many of the members discussed the items they brought in and guest Victor Riley, a sculptor, discussed and demonstrated the healing effects of the heated granite spheres he makes.

**SHOW:** Marie Crull— Everything is going very well for the show. There is a ½ booth left to fill. Also, there are fliers for members to pick up and sign-up sheets to work at the show.

**WEBMASTER:** Jim Daly— Still in need of pictures for the web site and is checking into scanning the *Rockfinder* onto the web site.

**OLD BUSINESS:** Tom Noe has volunteered as club delegate for the MWF convention.

**NEW BUSINESS:** David Peltz has organized a field trip June 28 at 9:00 a.m. to Michiana Aggregate. You must sign the sign-up sheet or you will not be allowed into the site.

There is a possible trip to Granitech on July 12 at 9:00 a.m.

Don Church made a motion to adjourn the meeting. Patty Enos seconded the motion. Motion carried.

Marty Perry, Secretary

**IT'S SCIENCE!**

After having dug to a depth of 1,000 meters last year, Scottish scientists found traces of copper wire dating back 1,000 years and came to the conclusion that their ancestors already had a telephone network more than 1,000 years ago.

Not to be outdone by the Scots in the weeks that followed, English scientists dug to a depth of 2,000 meters and shortly thereafter headlines in the UK newspapers read: "English archaeologists have found traces of 2,000 year old copper wire and have concluded that their ancestors already had an advanced high-tech communications network a thousand years earlier than the Scots."

One week later, Texas newspapers reported the following: "After digging as deep as 5,000 meters in west Texas, Texas A&M scientists have found absolutely nothing. They have therefore concluded that 5,000 years ago, Texas inhabitants were already using wireless technology."

*The Pegmatite* (April, 2007)

## 2008 Michiana Gem & Mineral Society Show

### NEWS:

### WORKERS NEEDED!

All members of MGMS should plan on volunteering several hours to help make our annual show in August a success. This is our chief fundraiser for the whole year, so it's essential that each member help out in some way. Here are the people to contact for volunteering. Check your directory for the phone numbers and e-mail addresses.

**Marie Crull**—organizing the set-up before the show (Thursday and Friday) and take-down after the show (Sunday).

**Bob Miller**—inviting folks to demonstrate their lapidary skills. Can you show and tell?

**Patti Enos**—staffing entrance table (selling tickets with a smile, greeting people, promoting the club, etc.).

**Kathy Miller**—organizing the potluck lunches and snacks for dealers and club workers.

**Lana Wright**—Kids' Korner (run games, hand out prizes to giggling youngsters, etc.).

**Tom Noe**—silent auction (pricing and selling items).

**Tom McLaughlin**—organizing the display cases. Get some of your finds together in a nice format for others to see.

*If you can help in any of these ways, sign up for time-slots during show hours:*

Friday, August 22, 2 p.m. to 7 p.m.

Saturday, August 23, 10 a.m. to 6 p.m.

Sunday, August 24, 10 a.m. to 4 p.m.

**St. Joseph County 4-H Fairgrounds**

### What else can you do?

ALSO, bring small rock-related items like polished stones or small fossils that we can hand out for free at the Kids' Korner. If you can get these to Lana before the show (at the picnic, perhaps?), that would be best.

ALSO, remember that you can either donate or consign items to the silent auction. They will be sold to benefit yourself and the club.

ALSO, talk up the show among your friends and neighbors.

ALSO, put up posters, flyers and yard signs. These will be available at the picnic!

ALSO, wear your club vest when you come to the show.

Our annual show is ALL volunteer-run (this means you), so your help is important! The club is counting on you.

### TOM'S PLEA FOR DISPLAYS

Dear Fellow Member:

It's time to make your DISPLAY CASE plans so you can participate in our club's 2008 Michiana Gem & Mineral Show. **AS ALWAYS, THE DISPLAYS ARE A BIG HIGHLIGHT OF THE SHOW.** This is the time and place where all MGM Society members can share this fascinating geological hobby with the community. It's educational, enjoyable and often the link that encourages newcomers to join us.

If you are new to the club or if you have never displayed before, this experience of showing your collection of rocks, fossils, gems or finished jewelry is a satisfying reward all by itself. Regardless of how simple or elaborate you want to make it, your display is a generous way to share this very special hobby with others.

Do you need case dimension plans? We've got them. Just give me a call and I'll send you some sketches so you'll have an idea on how to go about it! If you have a case you aren't using, let me know and maybe someone else can use it. I hope to hear from you soon!

Tom McLaughlin, 574-259-1501.

### SILENT AUCTION

The club runs a silent auction of lapidary-

related materials during the show. Anyone can consign items to the auction. If you have a lot, contact Tom Noe in advance. Otherwise, just show up with them at the auction table with some idea of what minimum price you want to get. Machinery, books, rough stones, crystals, jewelry, fossils, etc., are fine. For members, 20% of the proceeds go to the club, for nonmembers, 50%. Contact Tom Noe or Bill Crull if you have questions.



### A GREAT SITE FOR OHIO FOSSILS

The fossil hunters in the society should visit [bedrockbugs.com](http://bedrockbugs.com), a very useful site with numerous photos of Ohio fossils, the same kind found in most of the quarries in our area—trilobites, brachiopods, etc. The following article appears on the site.

By Dave Mielke

America has been built on the backs of trilobites. During the Paleozoic Era, when trilobites were living in the warm ocean waters south of the equator, Ohio's bedrock was being prepared. Trilobites lived throughout the entire Paleozoic, a period of 295,000,000 years. Now America is north of the equator because of plate tectonics, which caused movement from 1 to 2 inches a year, all the way to 25 inches during early Paleozoic times. So the Ordovician, Silurian and Devonian trilobites that we find in the rocks in Ohio have moved over 3,000 miles from where they were when they were alive.

Trilobites are found in all Paleozoic rocks and therefore are part of the foundation for America's infrastructure, its highways and buildings. Ohio's cement is made with Devonian limestone and shale, rock which contains millions of trilobites, especially *Phacops*. In our lifetime each American will need 65,543 pounds of cement to maintain our standard of living. That's a bunch of trilobites. Most

building stone in Ohio is Silurian and Devonian dolomite, which contains millions of *Calymenes* and *Phacops*. Aggregate for driveways, alleys and roadbeds is often the same, so trilobites by the millions are laid down there too. Every sidewalk, house foundation, street and skyscraper is built with trilobites--it cannot be avoided.

We will use 12,528 pounds of stone each year for every person in America to maintain our standard of living. That's a load of trilobites. Every sheet of paper has a thin coating of calcium carbonate to provide the friction needed for your pen or pencil to work. You might be writing on trilobites. Every stick of gum is coated with calcium carbonate so it does not stick to the wrapper. You might be eating trilobites.

Trilobites are everywhere but are very seldom seen and hardly ever recognized. No one seems to be willing to give trilobites credit for all they have done and for what they are still doing. Trilobites were one of the first animals to have legs which enabled them to walk and run. Their tracks are the earliest to be found on what was once the ocean floor. Trilobites are one of the first animals on the planet to have eyes. They were the first to see their watery world. Seeing where they were going proved very advantageous for trilobites and these genes were shared with other species.

Trilobites were the first arthropods, they had jointed legs and they shed their exoskeleton in order to grow. This life form has proven to be life's most successful, if you measure success in numbers. There are more species of arthropods on planet earth than any other life form. Every ant you step on, every spider you squash, every fly you swat, every mosquito you kill, every shrimp you eat is an example of an arthropod. Scientists claim that if the earth is incinerated by nuclear war or an asteroid, it is the cockroach, another arthropod, which will survive.

Because of all that trilobites have given to us on planet earth, I have made it my mission to see that trilobites get some recognition. It is my job to rescue the few that I can before they are ground up into cement or crushed into asphalt. So I get permission to get into the quarries where trilobites are being mined to be transformed into useful products. I need to get there before the rock is taken to the crusher.

Please understand: these trilobites I am trying to rescue are now fossils. No trilobite has been alive for the last 250,000,000 years. The exoskeletons of trilobites have been preserved in the rocks in many ways. In some the chiton shell of the trilobite has been replaced by calcite molecule by molecule and you see a perfect representation of the original trilobite. In dolomite quarries, the calcite replacement has been dissolved by magnesium in the water and you get an internal and external mold of the trilobite. It is these fossils that I am trying to find as I search through the rocks so that I may share the beauty of their creation with others who might not have the time or opportunity.

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Source: bedrockbugs.com.

## ROCK CANDY

<http://rockhoundingar.com/pebblepups/growcrystal>

Dissolve 1 1/2 cups sugar in 1/2 cup boiling water. This is a thick, hot syrup. It will burn you and keep on burning your skin because it is sticky, so be very careful not to spill it on yourself! We put our solution in a 1 1/2" deep tray, and suspended crochet twine from chopsticks for the crystals to grow on to. These crystals grew for about two and a half weeks before we couldn't stand it any more and took them out.

*Editor's note: If desired, you can add a few drops of flavoring or food coloring when dissolving the sugar. Use a natural string or thread for this; not nylon. One week is usually long enough, although the longer you wait, the larger the crystals will grow.*

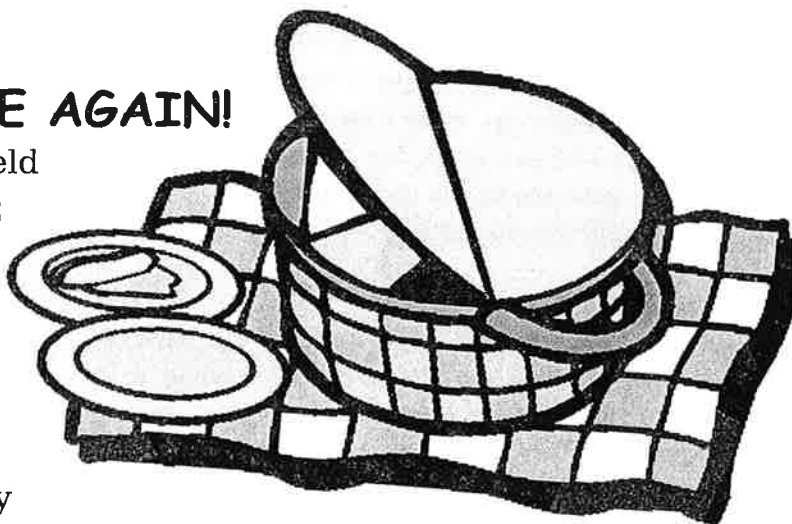
## IT'S (almost) PICNIC TIME AGAIN!

Our annual club picnic (rah!) will be held **Sunday, July 20, 2008**, starting at **12 noon**. We have reserved Pavilion 1 in Potawatomi Park, by the zoo (just past the pond). Parking is on the park exit road or on Greenlawn Ave., and rest rooms are available a short walk away. This is always a lot of fun, so everybody come! Visit the zoo afterward!

**Please notify Pat McLaughlin at 259-1501** ahead of time so she knows how many to plan for and what kind of dish you'll be bringing.

We are having potluck except for the main meat dish, which the club will provide. Bring a dish to pass with a serving utensil, plus your own table settings. There are plenty of picnic tables. Bring lawn chairs if they're more comfortable than benches for you. No alcohol allowed this year. Contact Pat McLaughlin or Jess Zeiger if you have any questions.

PLEASE notify **Pat McLaughlin at 259-1501** ahead of time.  
NOTE: We will do a little bit of show business at the picnic, and flyers will be available that you can hand out to friends and neighbors.



## HOW PTEROSAURS FORAGED

Researchers who studied pterosaurs, flying reptiles that lived (and died) with dinosaurs, thought that some of them might have foraged in a very dramatic way—by flying low across a body of water with their lower jaws slightly submerged to scoop up fish or other food. The idea was based on what appeared to be anatomical similarities between pterosaur fossils and few existing bird species that feed in this way. But a recent study by Stuart Humphries of the University of Reading in England and colleagues shows that the pterosaurs probably were incapable of such skimming behavior. Their jaws would have created so much drag that they would have tumbled into the water. More likely, Humphries said, they foraged the way existing birds like albatrosses do—by swooping down to pluck food out of the water.

*Detroit Free Press (Aug. 9, 2007)*

## MINERS UNEARTH WORLD'S BIGGEST DIAMOND

By David Beresford & Lee Glendinning

### South African find is twice as big as the Cullinan. Expert predicts feverish bidding on huge stone.

The world's biggest diamond, believed to be twice the size of the Cullinan, has been discovered in the North-West province of South Africa. The find has electrified the diamond community, but the circumstances of the discovery are shrouded in mystery.

A spokesman for the mining house which made the find, Brett Joli, said the diamond was being rushed to a bank vault in Johannesburg and would be kept there for a couple of days "until we calm down and decided what we are going to do." A security company was being hired to protect the precious stone.

The mining company which made the find has not been identified.

Fred Cuellar, the founder of Diamond Cutters International and author of *How to Buy a Diamond*,

said he first heard about the find a few days ago. "I get a phone call when any rare stone around the world is found and when I heard about this one it was stunning news."

The Cullinan, which was found near Pretoria more than a century ago, was until recently acknowledged to be the largest cut diamond in the world, weighing in at 530.20 carats. In 1985 it lost the record to the Golden Jubilee, which was found in the same mine as the Cullinan and weighed 545.67 carats.

In its rough state the Cullinan weighed 3,106.75 carats. It now forms part of King Edward's scepter and is in the Tower of London.

The Cartier diamond, famous as a gift from Richard Burton to Elizabeth Taylor, weighed a mere 240.80 carats rough and 69.42 carats cut.

Mr. Cuellar said the most important information about the latest find was yet to be forthcoming, including whether it is colorless. "The reported size of the stone is accurate, but there are all these other factors we still don't know and what matters now is how wide, how clear and how well cut it will be."

"Will this diamond rank above the best quality diamonds in the world? I can tell you right now, no. But in as far as the list of the largest diamonds ever found in the world goes, would it make that list? Yes it would."

He said the first seven people who looked at the stone thought it was industrial grade, but that view has changed and it now appears to be a stone that will be cut into a piece of jewelry.

The quandary facing the owner of the diamond now is how best to cut the stone, he said. "The thinking usually is with these types of things, we know how big we could get it but we don't know how much it will hurt us on the quality side."

The Cullinan, also known as the Star of Africa, was thought by some to be part of a larger stone which still lies somewhere undiscovered.

There will be interest in who made the find and how they will be rewarded. The black miner who discovered the Excelsior, said to be the second largest uncut diamond ever found, received a horse and saddle, and a sum of money.

Source unknown

## IN SOME SPOTS, GEOLOGICAL FORCES SPEED UP GOLD-MAKING

By Dale Gnidovec

Gold! Just the word conjures visions of sparkles and wealth.

Gold makes up a mere 0.0000002 percent of the Earth's crust, which means you would have to mine more than 20,000 tons of average rock to get 1 ounce of gold.

Luckily, we don't have to do that, because in some places natural processes have concentrated the gold into rock we call gold ores.

Among the most important of those processes are hydrothermal, in which hot water deep in the Earth dissolves gold out of rocks and carries it toward the surface. As the temperature and pressure lessen, the water no longer can hold so much dissolved gold and the metal precipitates in cracks and pores of more-shallow rocks.

Half of all the gold mined, as well as other metals such as zinc and copper, comes from hydrothermal deposits. For a long time, geologists argued about the water's source. Some said it was surface water that seeped deep below and became heated. Recent research shows that the water comes from magma deep below ground.

How long does it take hydrothermal processes to make an economic concentration of gold? A 1,320-ton deposit at Yanacocha, Peru, formed during a period of about 5 million years. Recent research indicates that hydrothermal gold deposits can form much faster.

The gold deposit at Ladolam, in Papua New Guinea, contains an estimated 1,300 tons of gold. The area is still volcanically active, with smoking vents and hot springs.

Using a titanium sampler, scientists collected hydrothermal waters from depths of more than 3,600 feet, where water temperatures were higher than 527 degrees Fahrenheit. At those temperatures and pressures, the water held enough gold to have produced the entire deposit in just 55,000 years, a geological blink of an eye.

Even that might be much too long. Other evidence suggests that gold concentrations in that hydrothermal system were much higher in the past, and that the water sampled today might be a mere trickle representing the spent ore fluid.

The Ladolam gold deposit sits in the center of

an extinct volcano. About 400,000 years ago, the top of the volcano collapsed or was blown off. The resulting rapid drop in temperature and pressure might have caused the gold to precipitate very quickly, in less than one human lifetime.

*Columbus Dispatch* (Dec., 2006)

## MINERAL ETYMOLOGIES

Etymology is the study of word origins. From where do some common mineral names come?

**Copper:** Because of its malleability, native copper was used by many early cultures for ornaments, and later, for coins. Its softness made it a poor choice for weapons, but alloyed with tin, bronze is produced. In the Bronze Age, the alloy was used to make swords, spear points and other weapons. The Romans called copper *aes* and in Greece it was termed *chalkos* ("copper pyrite" is thus *chalcopyrite*). The term *aes* came to include bronze (the alloy of copper and tin) as well as pure copper, thus the need arose for a term that meant copper by itself. Much Roman copper was derived from the Mediterranean island of Cyprus and called *aes cyprium*, or "copper of Cyprus." First *Aes cyprium*, then *cyprium*, then *cuprum* came to be used to indicate a pure copper. (It is interesting to note that the Latin *aes* eventually became the source of the English word *ore*.) The shortened term *cuprum* is the source of the scientific symbol Cu, used for copper on our periodic tables and in chemical formulae. In English, the Latin term *cuprum* became *coper* and then *copper*.

*The Quarry* (Nov., 2007)