

The Rockfinder

Michiana Gem & Mineral Society
Tom Noe, Editor
305 Napoleon Blvd.
South Bend, IN 46617

SEPTEMBER, 1996



**THE
ROCKFINDER**

MICHIANA GEM & MINERAL SOCIETY

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THE PURPOSE of the Michiana Gem & Mineral Society is to promote interest in and study of the earth sciences and the lapidary arts, and the sharing of knowledge and techniques.

General meetings are held the fourth Sunday of each month, 2:00 pm EST, at Our Redeemer Lutheran Church, 805 S. 29th St., South Bend, IN. Exceptions include field trip meetings, June (field trip), July (no meeting), August (club picnic) and December (Christmas Party).

Board meetings are held the second Wednesday of each month, 7:00 pm, St. Joseph County Public Library, basement level.

The annual club show is Labor Day Weekend.

The Michiana Gem & Mineral Society, a not-for-profit organization, is affiliated with the Midwest Federation of Mineralogical Societies and with the American Federation of Mineralogical Societies.

Rockfinder staff:

Editor, Tom Noe, 305 Napoleon Blvd., South Bend, IN 46617
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Reporters, Bob Heinek, Herb Luckert, club members
 All contributions for publication should be in the hands of the editor by the 10th of each month. Call (219) 289-2028 or (219) 654-3673. Permission is hereby granted to reprint any original *Rockfinder* articles, as long as due recognition is given along with the reprint.

cut _____

Yearly Membership Dues (Payable before January 1)

Individual	\$ 6.50 per year
Family	\$10.00 per year
Junior	\$ 2.00 per year

Please send your dues and this form to
 Michiana Gem & Mineral Society
 c/o Margaret Heinek
 7091 E. East Park Lane, New Carlisle, IN 46552-9400

Please make address corrections to the mailing label (reverse side) and/or fill in the optional information below.

Check your SPECIAL INTERESTS:

List Family Members (spouse and children):

- | | |
|-----------------------|----------------------|
| General Geology _____ | Beads _____ |
| Gems & Minerals _____ | Silversmithing _____ |
| Fossils _____ | Artifacts _____ |
| Cabochons _____ | Rockhound _____ |
| Faceting _____ | Crystals _____ |
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| | Other _____ |

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THE ROCKFINDER

VOLUME 36
NUMBER 9

SEPTEMBER, 1996

Published by:
Michiana Gem & Mineral Society

SEPTEMBER BIRTHDAYS

7 -- Janet Pellus
21 - Tom Fields
21 - Marsha Miller
21 - Janet O'Tousa

SEPTEMBER ANNIVERSARIES

1 - Tom & Pat McLaughlin
29 - Ozzie & Jo Kytta



Meeting: Sunday, September 22
Doors open, 1:30 p.m.
Meeting at 2:00 p.m.

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

Hosts: Dick & Jean Rosback
Margaret Schultz

Program Cabochons

UP AND COMING

September 27-29: Club Field trip to Hueston Woods in Ohio
September 6-8: Toledo, IN. Gem & Rockhound Show, Masonic Complex
September 6-8: Greenfield, IN. Gem & Mineral Show, Hancock County 4H Fairgrounds
September 6-8: Muskegon, MI. Rock & Mineral Show, Doo Drop Inn
September 13-14: Holland, MI. Tulip City 27th Annual Show, Holland Civic Center
September 21-22: Auction of Alberring Collection. Seymour, IN. 972 Lynn St. Starts 9:30 AM (812-522-1450)
September 28-29: Eastern Indiana Show, Richmond, IN. Wayne County 4H Fairgrounds
September 28-29: Falls Fossil Festival, Clarksville, IN. Falls of the Ohio State Park
September 29-29: Western Reserve Gem Show, Painsville, OH. Lake County Fairgrounds
October 5-6: Geology Arts Fair, Chelsea, MI. Eddy Center
October 5-6: Miami Valley Show, Fairborn, OH. Lions' Den
October 11-13: Greater Detroit Show, Light House Armory on Eight Mile Road
October 18-20: Ft. Wayne, Three Rivers Show. Allen County Fairgrounds
October 19-20: Earth Science Club of Park Forest, IL. 28th annual Gem & Mineral Show, Keeling Center, 375 Oswego Street
October 25-27: Central Michigan Show. Lansing, MI. Armory
October 26: Fabulous Fossil Festival, Indiana State Museum, 317-466-2288

MARGARET'S COLUMN

It is hard to believe it is September already. The summer was a busy one for us, but a good one.

One sad event occurred in August, we lost a long time member, Fred Niebauer. It was very sudden, and quite a surprise to all. Our sincere sympathy goes out to Adaline and also to Fred's daughter and son and their families.

Bob and I attended the Midwest Federation Convention and Show to see Bob Miller sworn in as the Midwest Federation president for 1997. Congratulations Bob! That makes 3 members of our society to serve as President of the MWF.

Paul Godollei's article that was submitted to the Bulletin contest was awarded a 9th place and the *Rockfinder* took 6th place in the MWF.

Bob and I and Bob and Kathy Miller flew to Riverside, California, early August for the American Federation Convention. I was sworn in as the 1997 AFMS president. My term will be from November, 1996, until November, 1997. The AFMS Convention in 1997 will be held in Jackson, Mississippi, which will be the 50th anniversary of the AFMS, I will serve as the 51st president, as one of the past presidents was unable to finish his term in office.

Now back to our society, our show is over!!! It appears to have been a good show. The Martins, one of our scheduled dealers, could not attend, as they were involved in a robbery in Pennsylvania, and were needed there to work with the FBI. Chris called me on Labor Day, and Ron called me on Tuesday and informed me that the loss to the dealers could amount to \$6,000,000. She said the report of the theft made CNN news. Thefts like this are why we must have a guard on duty in the show.

I would like to thank all of the members that worked at the show. My special thanks to Bill Crull and Bob Heinek, for going to the storage to get the cases, rocks, kiddies' games, displays and table covers on Thursday. The Crulls and Bob and I returned the things to the storage on Monday, THANKS! If it hadn't been for the members that stayed after the show to help pack the items that had to go back to the storage, take table covers off, and break down cases we would have been in trouble.

Tom Noe did an excellent job in the silent auction, and we were able to get rid of quite a bit of our excess rock. The workers at the Kiddies' games worked hard. I do not know all who worked there,

but I do know the juniors helped also, Thanks, guys and gals! Marie took care of the door, and she had many members working there. Several members demonstrated, Tom Fields, Danny Zieger, Bob Miller and Jim Russell along with a non-member, Virginia Steele. Michael Slattery, Jess Zieger, David Feltz (a new member) and others worked on the Petoskey polishing machine.

I know I will forget names, don't mean to!!!! Sister Georgia, Sister Jean, the O'Tousas, Phyllis Smallwood, Alec Rubenstein, Alice Garwood, Tom McLaughlin, Bonnie Brueske, Bill Nelson, Emily & Bill Jr., the Jordans, Bob & Kathy Miller, Addie Niebauer, Bess Wise, Gladys Pacholke, Nick Pellus (he also had a very nice display), the Rosbacks, Tony Spanley, Ed & Marsha Miller, Rebecca Parker (new member), the Cytackis, the Maxwells, Madeleine Martinez and Pam Rubenstein all worked. Several members displayed; Molly Elwell, Bess Wise, Bill Crull, the Heineks, the Russells, Bill Nelson, Jr., Danny Zieger, the McLaughlins, Thanks. We had a lot of pleasant comments on the displays.

Remember, our next meeting will be September 22, and not the 4th Sunday, as that is the field trip to Ohio. The October meeting date will be announced later.

Several things were discussed, with officers and club members, at a "special" meeting at the show. One was that we sell a few of the cases we have in storage, getting rid of some of the green table covers (we have too many) and eliminating the old sand box and sand we are storing (it is so heavy, and we have not used it for several years).

Also I feel it is time to get rid of the extension cords and lights we haven't used for about 10 years (what with the lighting at the Century Center, they are no longer needed). Some of our members bought cases at the show, so we did not have to cart them back to the storage. If any of you members would like a green cover, let me know, and we will see that you get one for a picnic table or some other use. We are not getting rid of them all, still need some, but we do not need so many.

We have several new members that joined at the show and some renewals. Others expressed an interest in becoming members, so we may hear from more.

Everyone had asked how our son Don was progressing since he was diagnosed with throat cancer in Feb. He is doing real well, and the doctors are very pleased with his progress. Thanks for the many prayers!



FOSSILS - FELLOWSHIP - FUN - FIELD TRIP

Hueston Woods and Vicinity

By Kathy Miller, Field Trip Chairman



The Michiana Gem & Mineral Society has a Cardinal coach chartered for September 27 through 29. Our destinations are Oxford, Ohio, Hueston Woods State Park and nearby areas. This field trip will be for collecting invertebrate fossils and similar Indiana Ordovician fossils.

The following is a brief itinerary for those going on this weekend field trip.

Friday, September 27, we meet at the K-Mart parking lot on the corner of Ireland Road and 31 South. We will board the Cardinal bus at 3:45 pm and leave at 4 pm. There will be one stop on the way to our motel in Oxford, OH. Arrival time will be between 9 - 10 pm.

Saturday we board the bus at 9 am (pray for a sunny day), and depart for Hueston Woods State Park six miles away. Between 9:30 am and 3 pm, everyone will be collecting successfully! We will leave Hueston Woods at 3 pm and return to our motel to get cleaned up for dinner.

At 5 pm, we'll be on the bus again for a short drive to town. Our motel is two to three miles outside of town. We will have approximately one hour to walk around downtown Oxford, then meet as a group at the Attractions restaurant. The management will have a room for us at 6 pm, and we will order our meals individually. After dinner we will take the bus back to our motel and relax or, for the more adventurous, stay in town, see a movie and whatever. The only stipulation is that you will have a two or three mile walk back to the motel.

Sunday we will leave the motel at 8:45 am. Thanks to Bonnie Brueske and all the work she has done on helping me with this field trip, we will have a personal tour of the Miami University Geology Museum. This will be at 9 am.

After our tour we will leave Oxford for the area around Cedar Grove, IN. (Again, let's pray for a sunny day!) Because we will not be able to hunt more than a few hours, I hope we will all find excellent fossils.

On our way home we will stop at a fast-food restaurant (driver's choice), then sit back and enjoy a good movie on the bus for our return trip home. Arrival time is 6 pm.

WHAT TO BRING.....

Rock equipment - collecting bag, rock hammer, eye protection, chisel, pick, rake, and a box for your specimens to be stored under the bus.

Collecting clothes - extra socks, OLD SHOES, be aware of weather for clothing (rain gear) and bug spray.

Food - You can bring a small cooler for pop and snacks that can fit under the seat of the bus, and another cooler (if desired) for the bottom of the bus containing extra drinks, your brown bag lunch for Saturday, and/or more snacks for the bus and your motel room. The Oxford Motel is small and a continental breakfast will NOT be provided.

THIS IS GOING TO BE A GREAT FIELD TRIP FOR MICHIANA MEMBERS OF ALL AGES. LET'S LOOK FORWARD TO A GREAT ROCKHOUND WEEKEND!

MINUTES OF THE MICHIANA GEM AND
MINERAL SOCIETY FOR AUGUST 25, 1996

President Heinek asked everyone to sign in at our picnic which was held at Clay Park at 1:00 p.m.

Margaret and Bob Heinek, and Bob and Kathy Miller were at the American Federation Meeting in California. President Heinek was sworn in as president of the American Federation, at which time Kathy presented Margaret with a rose from the club. Margaret was also given a bracelet from the Midwest Federation members. Kathy Miller read a nice note from Diane Dare who could not be present.

President Heinek asked for more displays from the club members. She said Bill Crull will pick up the supplies at the storage shed and also will return them after the show.

A motion was made by Marie Crull to send a \$25.00 donation to the endowment fund in memory of Fred Niebauer, seconded by Tom McLaughlin. All were in favor.

There were 24 adults, 6 juniors and 1 guest present.

The meeting was adjourned so we could enjoy all the good food and all our nice friends. By the way, the weather was beautiful!!!!

Respectfully submitted,
Marie Crull, Secretary

MWF BULLETIN CONTEST

Awards from the MWF Bulletin Editor's Contest, for two articles and the *Rockfinder*, given out at the Editor's breakfast in Macomb, Illinois were as follows:

Paul Godollei's article "Granite" was given a grade 97 points and took 9th place for an adult article.

Tom Noe's adult article "Seeing What's Really There" had a 90 ½ score, and received honorable mention. (Both articles

graded high, so there must have been some really high scores for the rest of the MWF).

The *Rockfinder* took 6th place with a score of 87 ½ combined grade for the October and June 1995 bulletins.

THE ART OF SUISEKI

Suiseki is the art of enjoying and appreciating a stone in its natural state, just as nature created it. True suiseki is an art dating back more than 600 years in Japan, and tracing its origins to the culture of ancient China.

Suiseki falls into definite styles. In shape and/or in patterns and markings, it may seem to resemble a mountain, a waterfall, sky and clouds, flowers, a tree or bush, an island, a landscape or an abstract form. A suiseki stone must be just as nature created it. One is permitted to cut the base for better seating, and a light polish may be applied to bring out luster and color, but no other treatment is permitted. A suiseki stone is displayed on a wooden stand or in a tray in water or in sand. A suiseki stone must be able to stand or speak by itself, providing joy, beauty and peace of mind.

Form and shape are all-important in suiseki. For example, a perfect quality green jade boulder may not qualify as a suiseki. On the other hand, a plain but attractively shaped stone found somewhere in the Mojave Desert may make a perfect suiseki specimen. Rock appreciation, as practiced in Japan, has nothing to do with material value; the emphasis is placed on its intrinsic value.

For the rockhound, the chance of finding the right suiseki stone is good, be it in a river bed, the mountains, the desert or along a beach. But when found, that suiseki is yours to enjoy. Search for a suiseki stone sometime. The fascinations of suiseki with its curious beauty may give you a satisfied, appreciative and peaceful approach to rock hunting

From *The Rockpile* (Feb., 1991)

Two members of the Michiana Gem & Mineral Society have recently been elected to serve on the national and regional levels. Our president, Margaret Heinek, has been elected as president of the American Federation of Mineralogical Societies. Voting took place on August 9, at the annual convention of the AFMS, held this year in Riverside, California. She was sworn in at a banquet on the 10th, and her term of office runs from November, 1996 to November, 1997.

During her term, the AFMS will be celebrating its 50th anniversary. Margaret will be responsible for the American Federation's meeting at next year's 50th anniversary convention, to be held in Jackson, Mississippi, in addition to her regular duties throughout the year, helping the federation run smoothly. Specifically, she has overall responsibility for seeing that the numerous committees of the federation are staffed and working well, committees such as: Ways and Means, Scholarship, Safety, Public Relations, Endowment Fund, Club Publications, etc. She will also coordinate the work of the seven regional federations (our own Midwest Federation is one) with regard to their participation in national events and activities.

All sorts of issues and proposals need to be discussed and voted on over the course of a year in the AFMS. For example, the yearly budget needs to be approved, and the proper procedures need to be followed for decisions about the AFMS's

participation in outside causes. At the meetings in Riverside, for instance, the officers agreed to a proposal for each of the seven federations to gather a selection of typical rocks and minerals from their areas, and donate them as part of a permanent exhibition which will travel around to schoolchildren in China.

All of us in the MGMS are aware that Margaret doesn't shirk from hard work, and we know that she will certainly put forth her best efforts for the AFMS throughout the coming year. We are happy to share her talents and skills with the rest of America!

On July 28, at the Midwest Federation Convention in Macomb, Illinois, club member Bob Miller was elected president of the Midwest Federation of Mineralogical Societies, Bob is also one of 14 directors for the AFMS, representing the Midwest Federation. As with the American Federation, The Midwest Federation has a number of committees, projects and goals, all related to helping club members to gain greater knowledge of the mineral world and to derive pleasure from our studies, displays, shows, field trips and other activities. We know that Bob will do a super job in the year ahead.

Our best wishes to both these members of the Michiana Gem & Mineral Society, and congratulations on their election to these positions of responsibility and service.

PSEUDOMORPHS

A pseudomorph is a mineral whose outward crystal form is that of another mineral species, and is described as being "after" the mineral whose outward form it has. Several categories of pseudomorphs are recognized.

1) **Alteration pseudomorphs**, in which the original mineral loses or gains one or more elements to form the new mineral. This is the most common type of pseudomorph. Examples are: tinalconite after borax (loss of water), gypsum after anhydrite (gain in water), and limonite after pyrite (gain of oxygen and water, loss of sulfur).

2) **Replacement pseudomorphs**, in which the original mineral is completely removed and replaced by something different. This is less common, and it can be difficult or impossible to distinguish this form from alteration pseudomorphs if the original and final minerals share a common element. There may be no way to tell if the original substance was completely removed or just altered. Examples of replacements are: a copper after aragonite (from Bolivia) and petrified wood (quartz or opal after wood).

3) A **paramorph** is formed when a mineral changes to a different crystal structure after it is formed, without any gain or loss of material. This may happen as the mineral cools from its original formation at a high temperature, or the change may occur slowly with time. Examples are: calcite after aragonite (aragonite is unstable at or near surface conditions, and slowly, over millennia, changes to calcite), and acanthite after argentite (the sulfide, argentite, is cubic and exists only above 180 degrees C; at ordinary temperatures it has always transformed to the orthorhombic mineral acanthite).

4) **Encrustation pseudomorphs** are coatings of one mineral over a crystal of another. The original inner mineral may or may not subsequently be dissolved away to leave a hollow mold. A common example is quartz encrusting fluorite.

Good examples of calcite paramorphs after aragonite come from Colorado and New Mexico. Camp Verde, AZ, is a prolific locality for gypsum

and calcite pseudomorphs after glauberite. Transparent glauberite crystals may be collected which, reportedly, can be seen becoming cloudy as the glauberite begins to dehydrate to gypsum. Quartz and chalcedony commonly form pseudomorphs after crystals or modules of barite, gypsum or calcite.

It is sometimes impossible to be certain what mineral a pseudomorph is after, especially from a single specimen, and if the crystal form is not perfectly preserved. One needs to see unaltered material inside the pseudomorph.

From *Serendipity Gems* (March, 1991)

IN ONE DAY

To maintain our standard of living, every day:

... 18 million tons of raw material must be mined cut or harvested to meet the demands of US citizens for "things and stuff" -- about 150 pounds for every man, woman and child.

... 640 acres -- one square mile -- of carpet is woven (barite, calcium, carbonite).

... 9.7 million square feet of plate and window glass -- and about 223 acres are used, enough to cover 200 football fields (silica sand, trona).

... 2,750 acres of pavement are laid, four times as much surface area as is mined, and enough concrete and asphalt to make a bicycle path 7 feet wide from coast to coast (sand, gravel, stone chips, limestone).

... 4,000,000 eraser-tipped pencils are purchased. That's enough erasers to correct all the mistakes from 1,500 miles of notebook paper -- about 129 acres of goofs (graphite, kaoline, pumice).

... 426 bushels of paper clips -- 35,000,000 are purchased. Seven million are actually used; 8 to 9 million are lost and almost 5 million are twisted up by nervous fingers during telephone conversations (iron, clay, limestone, trona, steel).

... 164 square miles of newsprint are used to print 62.5 million newspapers, enough to line a bird cage 12 miles wide and 13 miles long (trona, kaolin).

... 400 acres of asphalt roofing are nailed down

(silica, borate, limestone, trona, feldspar, talc, silica sand).

... 187,000 tons of cement are mixed, enough to construct a four-foot-wide sidewalk from coast to coast (limestone, sand, gravel, stone chips).

... 3.6 million light bulbs are purchased (tungsten, trona, silica sand, copper, aluminum).

... 10 tons of colored gravel for aquariums are purchased.

... 80 pounds of gold are used to fill 500,000 dental cavities.

... 550,000 pounds of toothpaste -- 2.5 million tubes -- are used: enough to fill a small jet liner (calcium carbonate, zeolites, trona, clays, silica).

... 21 million photographs are snapped, more than 29 acres of wallet-sized photos (silver, iodine).

REMEMBER: "If it can't be grown, it has to be mined!"

Courtesy of SME Foundation for Publication and Education, Inc.

POLISHING FLATS

By Roger Pabian

Many lapidaries look upon polishing a slab or a flat as some magic process that is known only to a few hierophants of the art. It is not a difficult process and can be mastered with some practice. There are a few steps to follow to produce excellent specimens.

The specimen should be sawed to produce the most flaw-free surface obtainable. Avoid having broken edges on a slab of agate. Often, the agate does not fit in the vise of the saw to produce this complete pattern. Then, one needs to resort to some manipulation such as gluing the stone on a board or mounting the stone in a milk carton with plaster such that the complete patterns will be parallel to the saw blade. Be sure to let the glue set up completely. I prefer a white glue such as Elmer's Glue. Let it set up several days until there are no more milky areas and all the glue is translucent. A good saw and blade are very helpful, as saw marks are very difficult to remove.

I begin the polishing process with a three-to-five-step sanding operation. With new 80 grit

sandpaper, I remove all the saw marks. The slab should have many parallel, easy-to-see sandpaper marks but no arcuate saw marks at this stage. An arcuate saw mark may often appear as an arc with a frosty surface rather than a groove. Be sure that all these are removed. This can be followed up by old 80 grit sandpaper. The 80 grit process is followed by sanding with 220 grit, new and old. Although the 80 grit sanding is done wet, the 220 grit and subsequent 320 grit are done dry. Follow the 220 with a 320 sanding; usually old sandpaper will suffice in this final stage.

I hold all the slabs by hand and do the above work on a sanding drum such as an Expando-drum, although any other drum will produce good results if used properly. In holding the specimen by hand, it is easy to determine when the specimen is getting too hot and it is easy to avoid the tragedy of having the specimen fracture. Be sure all the scratches are removed by the end of each sanding stage as these can not be polished out.

Now it is time to polish the specimen. Before doing this, one must carefully wash away any grit on the slab and on the edges and back of the slab. One tiny piece of grit will cause severe furrowing on the slab if it reaches the surface being polished.

Place the cleaned slabs in a bucket of hot water. I use tin oxide on a hard leather belt to complete the polishing process. Titanium oxide polishes such as RP 61 usually generate too much heat for polishing slabs, although they are excellent for cabachons. This is because the slab is a flat surface with a great deal of contact with the wheel, whereas the cab has only a small point in contact with the polishing wheel. Here I also hold the slab by hand. Have a second bucket of water with detergent such as Joy or Ivory in it. Place the polished slabs in this bucket as soon as the polishing is complete. This prevents the tin oxide from drying on the surface and makes cleaning them easier. I clean them with a jet of water from a squirt bottle that is available at a hardware store.

From *Cedar Valley Gems* (May, 1990)

Gem Cutting Classes

for Adults and Children

by Gordon Dobecki

You can learn how to cut and polish stones in my home at 11900 Loughlin Dr., Mishawaka, Indiana 46544.

I have been doing lapidary work for 40 years. My workshop is fully equipped with the finest diamond wheels.

The classes run one day per week for four consecutive weeks. The sessions last 75 minutes. The cost of \$49.00 includes all your supplies. Fees are payable the first night of classes. It is usually not possible to make up classes that are missed.

The class size is usually only 3 people. The average student finishes 4 projects ... the value of which can amount to more than half the cost of the lessons. Advanced classes are also available at \$55.00.

I also make custom jewelry, and offer gem faceting services. I have 2000 pounds of rough gemstones and specimens for your selection.

For information call: 219-259-7055 (4:30-8:30 PM)

