

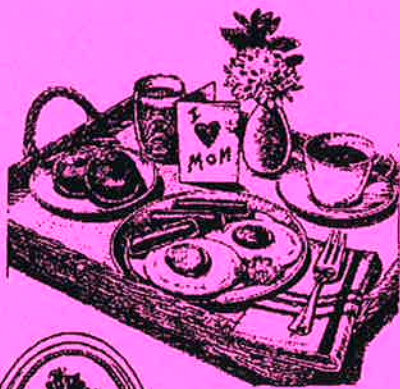


THE ROCKFINDER

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Be sure to bring a T-Shirt to the April meeting.
Check out the program!

Larry Hess, Rockfinder Editor
15358 Kerlin Drive
Granger, IN 46530



MICHIANA GEM and MINERAL SOCIETY

1994 BOARD OF DIRECTORS

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Membership	---	All Members	

The Michiana Gem & Mineral Society, a non-profit organization, is affiliated with the Midwest Federation of Mineralogical and Geological Societies and with the American Federation of Mineralogical Societies.

Regular Meetings

Time:	2:00 PM EST	Place:	Wesminster Presbyterian Church
	4th Sunday of each month		1501 W Cleveland Road
	June - Field Trip Meeting		South Bend IN
	July - No meeting		just west of the St Joseph River
	August - Annual Club Picnic		
	December - Christmas Party		

ROCKFINDER STAFF

Editor	Larry Hess	15358 Kerlin Dr, Granger IN 46530
Co-Editor	Margaret Heinek	7091 E East Park Ln, New Carlisle IN 46552
Staff	Bob Heinek / Club Members	

All contributions for publication should be in the hands of the Editor by the 10th of each month. (219 272-5431) Permission is hereby granted to reprint, at any time, items published in the ROCKFINDER provided due recognition is given.

cut

Membership Dues are:

_____ 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 Club, Treasurer
Marge Collins
3017 Niles-Buchanan Rd
Buchanan MI 49107

Please make address corrections to the mailing label on the reverse side and fill in the optional information below. Your Birth Mo/Yr _____

Check your SPECIAL INTERESTS:

General Geology _____	Gems & Minerals _____	Fossils _____	Artifacts _____	
Cabochons _____	Faceting _____	Silversmithing _____	Carving _____	Crystals _____
Micromounts _____	Beads _____	Other _____		

Family Members include information on spouse and children:

Name _____	Birthday _____	Will attend meetings _____
Name _____	Birthday _____	Will attend meetings _____
Name _____	Birthday _____	Will attend meetings _____

THE ROCKFINDER

Volume 34
Number 4

April 1994

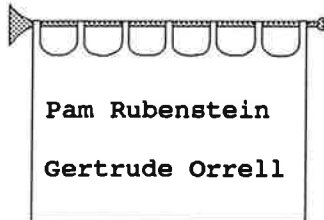
Published by:
Michiana Gem & Mineral Society

Meeting: Meeting: April 24, 1994
Doors Open 1:30 PM
Meeting at 2:00 PM

April's Program: Ed Miller is bringing materials to let us silk screen the 1994 convention logo onto our T-shirts. Please bring a white T-shirt with no pockets.

Place: Westminster Presbyterian Church
1301 E Cleveland Road

Hosts:



April Birthstone - Diamond:

The greatest of gemstone, with properties of extreme hardness and refractive power. It consists of carbon crystalized under high temperature and pressure.

April Happy Birthdays



3 Ed Miller
4 Jim Russell
5 Stan Kile
8 Jan Landato

16 Fred & Addie
Niebauer (Anniv)
21 Jim McHugh
28 Bill Crull
30 Ozzie Kytta





Calendar of Events:



Apr 22-24 Flint Rock & Gem Club
28th Annual Gem & Jewelry Show
Williams Community Center
Carl Mulholland, 313-232-8810

June 17-19 29th Ann. Gem & Mineral Show
Lawrence County Rock Club
Bloomington IN
Margaret Kahrs (812) 522-6093

April 30 Kalamazoo Geological Soc.
May 1 Gem & Jewelry Show
Kalamazoo County Fairgrounds
Kitty Starbuck, 616-649-1991

June 25-26 MGAGS - Rockhound Seminar
Southwestern Michigan College
Niles Michigan
Cathy Hodgson (313) 664-8985

May 20-2 Midwest Mineralogical
20th Annual Gem & Mineral Show
Dearborn Civic Center
Kathy Morris, 313-382-5354

June 3-5 Northwest Federation, Ogden UT
June 23-26 South Central / AFMS, Houston TX
July 8-10 Rocky Mountain, Rapid City SD
Sept 2-4 Midwest Federation, South Bend IN

MARGARET'S COLUMN

Isn't it nice to see the sunshine? It seemed such a long winter. Now for our vacations and possible rock-hunting trips.

This month will be full for me, what with the April show, leaving for Washington, DC on the Monday after the show and then in June, Bob and I will be in Houston at the AFMS Convention. We are attending the MWF Spring meeting in Ohio to talk about our Labor Day Convention, and will take the packets for mailing, but if anyone is there that can take theirs, we will save on postage.

A discussion on a field trip in September was held, and it was decided to try to get a bus load to go September 16, 17 and return the 18th. We will leave in the early evening from South Bend, (to enable the workers and juniors to go) rock hunt on Saturday and return on Sunday. As this will be right after our show we will be ready to relax. The Michiana Society will pick up the bus fare, but each family will be responsible for their motel and food. As we have not had a bus trip for a while, this should make up for it. If you would like to go, let Tom McLaughlin know so he can make arrangements with the motel. We need to make a deposit with the bus company and the motel wants something too. Read my column last month which tells how much the motel cost will be. I want to make it plain, you must be an active member of the society, either work at the show or work during the year, in order to have your bus fare paid. If we fail to fill the bus, we will take outsiders, but they will have to pay their bus fare. So if you want to go, tell Tom, as "first come, first served".

There will be sign-up sheets at the April and May meetings for workers at the show. We need set-up workers, cars and trucks to pick

up the supplies at the storage (cases, rocks, table covers, kiddies corner supplies) we will need help with table covers, hostesses (Pam is chairman), the door (Kathy Miller is chairman), the kiddies corner (Lorraine Jordan), making favors for the meals, and after the show, the clean-up crew. As usual we do not have to take down the tables, that is the rental company's responsibility, but the covers must be folded up and taken to the storage and the cases will need to be taken back.

We need displays, so plan on your display, fill out a sheet for the chairman, Tom Noe, so he will know how many tables we will need to order for them. We want to show the MWF we have beautiful collections here in South Bend. There are many things that have to be done before hand, so if you are willing to help PLEASE COME FORWARD and volunteer to do the job.

Getting back to Pam, (this is very important to me) I dislike going to a show, asking for information about where the washroom, water fountain, phone, meeting rooms or anything is, and have someone say "I don't know". We want to make our guests welcome, and have them go away saying the Michiana Society members were friendly. Pam will have greeters at the door and at the meals, and the rest of us should wear our vests and be able to answer questions if anyone should ask us.

I will see you at the May meeting, I will be in Washington, DC at the DAR convention. Never been there, and I am looking forward to the trip. We will go by bus, leaving from South Bend on Monday a.m., getting into Washington on Tuesday and returning to South Bend the following Monday.

Margaret

**SECRETARY'S REPORT
MINUTES OF THE MARCH 1994 MICHIANA
GEM & MINERAL SOCIETY**

President Margaret Heinek opened our regular meeting. The January minutes were corrected to read that the November (not December) minutes were accepted as printed in The Rockfinder. The February minutes were accepted as corrected: The Saturday hours for Earth Day at Scottsdale Mall are 10:00 - 5:00. Also, there was a lot of discussion at the February meeting concerning entertainment for the awards banquet at the September show. It was moved, seconded, and passed that we hire The Company to entertain. The treasurer's report was accepted and filed for audit.

Committee Reports

Program - We will have a silent auction today. The club will keep 10% of all proceeds.

Sunshine - Earl Smith, past president and member of our club, passed away. Condolences go out to his family.

Liaison - Paul Godollei brought fliers about upcoming shows. Also, the Elgin Rock and Mineral Society will have a silent auction on May 21 from 11:00 to 3:00 at the Highland Avenue Church of the Brethren, 783 Highland Ave., Elgin. They will feature some of the Clint and Mildred Heckert collection including slabs, rough materials, gems, minerals, and fossils. Admission is free. For further info, call 708/894-0410 or 708/428-8105.

Education - Gordon just finished tumbling 20 pounds of rocks at school. He will donate some for Earth Day. Also, his next rock polishing class will begin in early April. Call him for details.

Library - Paul Godollei asks that you return the materials you currently have.

He would love it if more members would borrow materials, too.

Roster - Larry Hess should have the roster out in mid April. Hope you've all paid your dues so you can be included!

Editor - Member profiles, along with any other articles for inclusion in The Rockfinder, would be most welcome.

Old Business

Field trip - Tom McLaughlin reported on the status of our field trip. It was moved and passed that we hire a bus for a trip to Corydon for Sept. 16-18 if a minimum of 30 members sign up. The club will pay bus fare for all members who have been active and have worked at our various functions recently. Attendance will be on a first come basis, so sign up or call Tom if you're interested. Paul Godollei is looking into fossil sights, and Pam Rubenstein will get in touch with her contact concerning the quarry and other hunting grounds.

The 1994 Show

Dealers - Chuck Collins reported that he has 22 registered dealers, but would welcome more.

Kids Corner - We need people to work! Call Loraine Jordan if you can help out. Also, we need materials. It was moved and passed that we buy 50 pounds of tumbled rocks for use at the kids corner and at other programs.

Hostess - Pam Rubenstein will chair the host/hostess committee. There will be a sign-up sheet at the next meeting. This is an important job - and also an easy one. Please be generous with your time so that we have a successful show.

Table Decorations - We have 50 faceted CZ's that we can use for table decorations. If you have any ideas for them, please let Margaret know.

New Business

Margaret received a letter concerning the U.S. Forest Service proposed regulations 36 CFR 261 & 262. She read us her excellent response and urged all members to respond against these proposed regulations.

4 juniors, and 20 adult members were present.
Respectfully submitted,

Pam Rubenstein



Editor's Notes

I'm thinking that April is a great month for homework (for YOU)! We'd sure like to have a few more member profiles and volunteers for meeting programs. New ideas for our hobby activities are always welcome. So that you don't think I'm going to make you do ALL the work, I have the following thoughts to share with you. Please comment and send me your own ideas for the next issue. Thanks.

First from my son Brian, an idea regarding door prizes for monthly meetings. It's a little complicated but main the idea is sharing. For example, we go on field trips and find nice local rocks & minerals (Calcite, Pyrite, Fossils, etc) and we each take home our finds. You might imagine (and you'd be correct) that clubs all over the country do just about the same thing. It seems possible that we could share some small portion of our local treasures with other clubs, maybe just enough for monthly door prizes.

Since I'm talking about clubs all over the country this is a suggestion mainly for the Federation level people to consider but we could all let them know if it sounds good. It's certainly not without problems, trading has to be fair, value has to be low, etc. But the educational prospects are enormous, think about it.

A second idea from another person and more at the local level, is concerned with meeting programs. I'm not sure about all our club members but I don't have time, ideas, or resources to prepare a meeting program. For those creative souls that would have the time perhaps we should consider supporting them with club resources. To be specific, I'm

thinking that some member may be aware of new materials, equipment, craft techniques processes or just information that could be an informative program at a club meeting. Why not reimburse them for some expenses related to the program presentations. Hopefully, this would stimulate some talented craftsperson to share more expertise with all of us.

This proposal also has its problems. A person both financially and technically responsible would have to be in charge. Since my expertise is in the "spend more than you make" category, don't even consider me!

Your own ideas (just get them to me) and input from other member's will be here next month. Please note, the items above are presented for discussion purposes and your comment or criticism would be greatly appreciated.

Looking Ahead to 1995

I have confirmed with the Headley-Whitney Museum located in Lexington KY that the Gold Castle will be available for the 1995 Show.

Publicity materials will be in our hands by April 15th so we can plan our 1995 advertising strategies. To this end it is necessary to select a 1995 Show Theme at our April meeting.

Suggested Themes should be flexible enough to encompass the wide variety of materials available in our hobby. Each member is requested to become part of the development process. So let your creative thoughts flow and bring the results to the April meeting!

Chuck Collins.

PETRIFIED FOREST VISITS

Bob and Margaret Heinek

As most of the members of the Michiana Gem & Mineral Society know, the Heineks love and enjoy petrified wood! We are not "mineral" people as such, but in studying petrified wood, we had to learn.

Much of our petrified wood is from the northwest US. Although we usually try to obtain complete rounds and limbs, we also have unusual specimens from other areas of the US as well as other countries.

On our trip west 12 years ago to California to see our new grandson, we visited the Petrified Forest in Arizona. On the way home we went to Apache Junction to visit Eleanor and Stoney Stonecipher. After our visit we went north, through the Apache Reservation, to St Johns where we purchased specimens from that area. Being in the vicinity, we went through the Forest again. Our most recent visit was on the way to an American Federation Convention in California.

The area, although a desert now, with only a few inches of rain falling each year, will at times receive cloudbursts which flood the dry streambeds. When this happens, an abundance of beautiful flowers magically appear. Fossils of animals and more of the petrified wood are then exposed.

Geologic time is divided into four eras. The first and oldest era was the Precambrian, followed by the Paleozoic, the Mesozoic and the present era, the Cenozoic. Each era lasted several hundred million years and is subdivided into "periods" which lasted many million years. The Petrified Forest, in the Chinle Formation, is of the Late Triassic age, in the Mesozoic era, and the dawn of the age of dinosaurs. It has the largest concentration of

petrified wood known to man. And it contains some of the largest petrified logs in the world, both in length and diameter. The display of exquisite colors and patterns is remarkable.

It is an excellent area for the study of the wood, plants and fossils of the Triassic Period. Many of the fossil areas, along with the wood areas, are open to visitors. But some are not, in order to keep the public from disturbing the valuable specimens. Federal law prohibits taking specimens, but several tons of the petrified wood are thought to be taken out each year, although some visitors are caught and fined. Others are not detected and then feel they have had bad luck after taking pieces home. Some return them by mail each year.

When we visited Stoney we bought a large piece of *Woodworthia* from him. Going into the park we had the Ranger look at our receipt. He marked it so we would not be fined for removing any of the petrified wood when leaving.

There are three species of wood found in the park. The most abundant is *Araucarioxylon arizonicum*, which grew to about 200 feet tall. Rarer is *Woodworthia* and *Schideria adamarica* being the rarest. (We have specimens of all three).

At the time these trees grew the climate was warm and wet all year long. The continents were joined in the landmass of Pangaea, and Arizona laid at about the latitude of present day Panama. It appears that because of all year-around growth, the trees did not develop annual rings. This indicates to the scientists that there was not a cycle of seasons, either warm-cold or wet-dry.

The trees grew on high forested ground, in the mountainous region called the Mogollon Highland that existed during the latter part of the Triassic Period. In the vicinity of the

Forest, the streams flowed north or northwest toward the sea, which was just west of the modern Colorado River in southern California. Scattered across the plain were many lakes, swamps and active volcanoes. For more information on this area, read the books on the Petrified Forest The Story Behind the Scenery by Sidney R. Ash and David D. May, and Merrill D. Beal's Grand Canyon, the Story Behind the Scenery.

continued

In the Tertiary Period of the Cenozoic Era, one of the principal rivers draining northeastern Arizona was blocked by uplift of land to the east. Water of the ancestral Colorado River flowed from the north, forming an impoundment now called Lake Bidahochi. About 10 million years ago the drainage pattern changed and water which had flowed into the lake, was diverted and Lake Bidahochi drained.

About four million years ago, volcanoes erupted in the area of the drained Lake Bidahochi. This formed layers covering the Chinle Formation with sediments of lava and ash approximately 3,000 feet thick.

This is the area where the trees grew, so when they fell, floods carried them north to the area now known as the Petrified Forest. There they were covered by silty water, which containing dissolved silica. After being buried, the water penetrated to the organic material, gradually replacing it with minute crystals of quartz usually so small that the rock took on a 'polished look'. Some logs have large cavities containing quartz crystals, a few of which are amethyst colored.

Erosion followed, stripping away the Bidahochi Formation, cutting into the Chinle beneath it, thus revealing the concentrations of petrified wood and fossils. Invertebrate

fossils, laid down during the Paleozoic Era, are found in small pebbles of chert carried into the park by erosion.

In the last few years fossils of vertebrates have been found in the Park, the most abundant being phytosaurs, crocodile-like reptiles from 17 to 30 feet long and metoposaurs, large flat-headed amphibian carnivores, which were up to 10 feet long and weighed 1,000 lbs. An excellent article on these can be found in the November 1992 issue of "Earth" Magazine.

References:

Earth Magazine, November 1992, "Petrified Forest, The Story Behind the Scenery"

FACET DESIGN SHAPES

Q I A I E Y L V R B G O E Q G
R N L M S N G Q T Q U K A X L
T H M P A Q O N A F Q J S L C
T R P T S O A T R A P E Z E Q
E S U V R V L M S S R P E K R
U V Y A E A J M S Y I I U E Z
Q U R T F P E H M Z E N O K A
I L T T C U S H I O N K A G G
X E K F W A H Q A L U F N G L
K M G B I S V U U Q W Z N C G
X E D N K L L G P M G T N T Q
N R N F E P A U L E T T E W Y
E A U Y E Z V O R Z U Q X H I
E L O A D A O Z T K H G Z S Y
V D R I O N Y L A L U N T M C

Words used:

- | | |
|-----------|----------|
| CUSHION | EMERALD |
| EPAULETTE | FAN |
| HEART | KEYSTONE |
| LOZENGE | NAVETTE |
| OVAL | PEAR |
| ROUND | TRAPEZE |

READING TOPOGRAPHIC MAPS - Part 1

by Paul Godollei, club member

When reading about the location of fossil and mineral collecting sites, you will frequently come across a notation such as this one from "Adventures With Fossils", by Robert H. Shaver by the Indiana Geological Survey on page 24 "Go one mile east on US Highway 24 from the Erie Railroad in Huntington and turn South on North Broadway. after 0.5 mi., turn east on Sabine Street, which

leads to the Erie Stone quarry in Huntington, Indiana. Then it has this (SE 1/4 sec. 12, T. 28 N., R. 9 E. Huntington Quadrangle)



Huntington Quadrangle).

10. A fossil reef.—Yes, a quarry near Delphi in Carroll County

straight south of South Richmond crosses the creek 2 miles south of where the road leaves the highway.

9. Quantity, not quality.—Silurian fossils are abundant in the Erie Stone Co. quarry near Huntington, but they are only in fair shape. The quarry is noted for its many lamp shells and corals, including chain and honeycomb corals. Go 1 mile east on U. S. Highway 24 from the Erie Railroad in Huntington and turn south on North Broadway. After 0.5 mile, turn east on Sabine Street, which leads to the quarry (SE 1/4 sec. 12, T. 28 N., R. 9 E.,

which gives the precise location geographically according to the

topographic maps. It doesn't help much if you don't know what it means. I will try to explain.

In order to read the exact location, you need a Topographic map. An Index of Topographic Maps of Indiana is available on request from the Indiana Geological Survey, Publication Sales, 611 N. Walnut Grove, Bloomington, Indiana, 47405.

Indiana is divided up into zones, and you have to have the right map to find the locations. A map of the Quadrangles is included on the back of the Blue Order form you get when you write for maps. See attached example showing location of Huntington Quadrangle., and Order Form. A large map of the quadrangles is also on the inside of the Indiana Map Coverage booklet. See the figure on the following page showing a portion of the map and identifying the Huntington Quadrangle.

In this case you would need a map of the Huntington Quadrangle. Individual maps cost \$2.50 each, plus Indiana sales tax and postage. Get the maps in the 7 1/2 minute quadrangle series, at a scale of 1: 24,000. An inch equals 24000 feet. When you get the map you see that it is divided into squares of about 2 3/4 inches., or about a mile each.

The figures on the following page point out the county and quadrangle details. In the next article we will describe how to locate the Townships and Ranges on the Topographic Maps and find the fossil and mineral sites.

Note: Copies of Paul's Indiana map order forms are available from your Rockfinder Editor.

**The University of Notre Dame
Fossil & Mineral collection.**

For some time now portions of the Notre Dame fossil and mineral collections have been on display in sixteen cases in the hallway of Fitzpatrick Engineering Building. In April of 1992 the club's meeting was held in the building and we were given a personalized tour and history by Fr. James Rigert.

The collection began when Rev. Alexander Kirsch came to the school in the early 1900s. He taught general geology within the chemistry department. He collected fine specimens of fossils and rocks, and is credited with setting up a museum at the university.

Dr. Knowles B. Smith became head of the Mining and Engineering department in 1908 and expanded the collection. His teaching expanded the curriculum and included Mineralogy, Crystallography, and Chemical Geology. Dr. Smith was an ambitious collector of ore samples from many of the country's famous mining areas especially the copper district of Northern Michigan.

Over the years the mineral collection has been in and out of a museum format. Likewise, the geology department changed periodically and in 1956 was moved into one of the oldest groups of buildings on campus. The Geology students census peaked in 1959 at about fifty and started a decline through the 1960's. Since 1993 I believe that Geology & Civil Engineering have been part of the College of Engineering. One faculty member, Dr. Keith Rigby, has agreed to be a speaker at our Midwest Federation Show in September. Plan to be there; and don't miss the mineral exhibit while on display in the Engineering Building.

During our visit, Fr. Rigert related a story about the collection to us. It seems that one

large quartz specimen in the collection was ready to be discarded and so it was used by a professor to keep his children busy while he was working on the collection. After working for quite some time with hammer and chisel, the specimen was broken and inside it was lined with beautiful veins of gold! A dramatic story in Fr. Rigert's own words, primarily due to the large quartz & gold specimens he circulates during the talk.

References: MILESTONES by Joan Loranger, a University of Notre Dame publication.

FACET DESIGN SHAPES

Z L F Q P T U A D Z M V P X M
J M R L M R H Y S E X X Y I R
V Y G J U E L D R I G X U K O
O N L D M S C H P T M S O H F
Q J O H U R I Q I U E Z L V E
J M Z R Y G R O N A D C X R R
T S D S C S T D N H N X A E P
C R T Z D I E K K E I W P F A
Y A D S J R M P S L L O E R V
L S W T C P O E L U O B X A I
U C N U V Q S A U T A R A C L
Q W T Y B C I N I L C I R T I
I G Y D Z C M V A S M O Q I O
H O U E O K E E D M W G D O N
F L V B H D C R U N J H M N D

Words used:

- | | |
|------------|-----------|
| APEX | BOULE |
| CARAT | CROWN |
| CRYSTAL | FACET |
| GIRDLE | ISOMETRIC |
| LINDE | MICRON |
| PAVILION | PREFORM |
| REFRACTION | TABLE |
| TRICLINIC | UNDERCUT |

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 1994 CONVENTION
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 and More!

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 Saturday Sept. 3 - 10am to 6pm
 Sunday Sept. 4 - 10am to 5pm**

**Adults \$3 daily: 3 day pass \$7
 Age 6 to 16 \$1.50 daily: 3 day pass \$3.50
 Under 6 Free**

OPEN TO THE PUBLIC

Hosted by Michiana Gem & Mineral Society

Information:
 Margaret Heinek
 7091 E. East Park Lane
 New Carlisle, IN 46552
 Phone 219-654-3673



Dealer Chairman:
 Charles Collins
 3017 Niles-Buchanan Rd.
 Buchanan, MI 49107
 Phone 616-695-4313