

MAY 1990

# THE ROCKFINDER



ED MILLER, EDITOR  
MICHIANA GEM & MINERAL SOCIETY  
114 E. LOGAN ST.  
ARGOS, INDIANA 46501



**FIRST CLASS MAIL**

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144 Spruce Drive  
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The MICHIANA GEM AND 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: Westminster Presbyterian Church
Fourth Sunday of each month	1501 W. Cleveland Road
June-Field trip meeting	South Bend, Indiana
July-No meeting	West of the St. Joseph River
August-Annual club picnic	

Dues

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

Rockfinder Staff

Editor..Ed Miller	114 E. Logan Street
Staff...Club members	Argos, Indiana 46501

All contributions for publication should be in the hands of the editor by the 10th of each month.

Permission is hereby granted to reprint, at any time, items published in the Rockfinder, provided due recognition is given.

# THE ROCKFINDER

VOLUME 30

NUMBER 5

MAY 1990

PUBLISHED BY: MICHIANA GEM AND MINERAL SOCIETY INC.

SOUTH BEND, IN.

REGULAR MEETING:

SUNDAY MAY 20

(Note, the meeting is a week early)

TIME: DOORS OPEN 1:30  
MEETING 2:00

PLACE: WESTMINSTER PRESBYTERIAN CHURCH  
1501 W. CLEVELAND ROAD  
WEST OF THE ST. JOSEPH RIVER  
SOUTH BEND, IN.

PROGRAM: BUSINESS MEETING

I am looking forward to this months program for a couple of reasons. The first reason is the topic looks very interesting and the second reason is the program is being given by one of our members. Sister Georgia Costin is going to tell us about her 16 months at the Holy Cross Mission School in Uganda, Africa. She has slides of the Mountains of the Moon area, crater lakes, and the headwaters of the Nile.

A big thanks goes out to Mrs. Doris Kemp for her very interesting program about "beads".

HOSPITALITY:

BETTY STOUT  
JO & OSSIE KYTTA  
IRENE UNGURAIT

COMING EVENTS:

MAY 26-28

Chicagoland Gems & Minerals As.  
14th Annual Show  
Dupage County Fairgrounds  
2015 Manchester Road  
Wheaton, Illinois

# C U N

TRANSLATION-----

SEE YOU IN EVANSVILLE!

COMING EVENTS CONTINUED:

JUNE 2-3

West Central Ohio Gem & Min. Club  
18th Annual Gem & Mineral Show  
Eagles Lodge  
800 W. Robb  
Lima, Ohio

JUNE 22-24

Lawrence County Rock Club  
25th Anniversary Gem & Mineral  
& Fossil Show & Swap  
(Formerly Bedford, In. Rock Swap)  
Monroe County Fairgrounds  
Bloomington, Indiana

JULY 19-22

50th Anniversary Convention & Show  
"Golden Jubilee"  
Evansville Lapidary Society &  
Midwest Federation  
Green Convention Center  
Evansville, Indiana

AUG. 5

Michiana Club Picnic  
Lakeville Conservation Club

AUG. 31-SEPT. 2

Michiana Gem & Mineral Society  
Annual Club Show  
Century Center  
South Bend, Indiana

SEPT. 15-16

Three Rivers Gem & Mineral Society  
Annual Club Show  
Allen County Memorial Coliseum  
Fort Wayne, Indiana

MARGARET'S COLUMN

Well here it is May and the summer is before us. REMEMBER OUR MAY MEETING IS ONE WEEK EARLY, May 20th, due to Memorial Week End.

Our program should be a very interesting one. The program will be presented by our own Sister Georgia. She spent 16 months in Uganda, Africa as a teacher at the Holy Cross Mission School. The program will feature slides of the Mountains of the Moon area, crater lakes, game parks, the people and their villages and a look of the headwaters of the Nile River.

Be sure and check the front page of the ROCKFINDER for area shows. There will be one over Memorial Weekend, May 26, 27 & 28th. This will be held at the DuPage Fair grounds in Wheaton, Illinois. They have a very interesting show each year.

There will not be a meeting in June, unless someone would like to plan and lead a group on a field trip. I will check on a mine in Michigan, so let me know if you would lead a trip. Bob and I, as well as Kathy and Bob will be in California at the National convention in Ventura. We will be back for the Midwest Federation 50th Anniversary show in Evansville, July 19-22. This will be a great celebration, so if you can, plan on going to Evansville.

The Michiana Club's annual picnic will be Aug. 5th. at the Lakeville Conservation Club. So mark your calendar and don't miss an excellent meal and last minute information about our own show Aug. 31-Sept. 2. (If you picked up the large show fliers we had at the last meeting the dates were wrong so discard them).

We will need plenty of help from ALL MEMBERS for displays, set-up, door, club booth, kiddies wheel, sandbox and especially on Friday morning with the table covers and Sunday eve. refolding the covers.

If you want a trip this fall WE MUST HAVE A GOOD SHOW AND PLENTY OF HELP. We have a good selection of dealers, as usual! Bill has done an excellent job of getting a variety of different dealers. So PLEASE come and help putting it on.

*Margaret*

Here is some helpful information from the MAY 1990 AFMS NEWSLETTER.

Does the community know that you exist?

There are many ways to keep the club before the public eye. Gene Powell AFMS Pres.

1. Talks to school science classes - also help judge at any science fairs in the area - also present your own awards to the winners you pick.
2. Give the AFMS Mineral and Fossil charts to schools and libraries. Call the local TV stations and newspapers. This lets the community know a little about what you do and how you try to return a little something to the community.
3. Talk to church and civic groups. For the school, church, and civic group visits, it does not hurt to leave a polished stone.
4. How about helping the Boy Scouts earn a merit badge? There is a badge for Earth Science.
5. Set up displays in the local libraries or bank foyers.
6. Advertise your meeting in the "What's Happening Next Week" section of the local newspaper. Tell about the program and the speaker.
7. Place your club name, and a contact person, and perhaps a phone number in the local organization list. This is a list that is compiled by the local Better Business Bureau, or that type of organization each year.

\* \* \* \* \*

--Interested in a June field trip? The club has received some information about a quarry up in Michigan. If anyone is interested in heading up a field trip to this area between Battle Creek and Charlotte, see Margaret at the meeting Sunday.

\* \* \* \* \*

Gordon Dobecki's mother is in ill health- Please keep her in your thoughts and prayers.

MINUTES OF THE MICHIANA GEM & MINERAL SOCIETYS APRIL MEETING.

President Heinek opened the meeting at 2:00 P.M.

The program was given by Doris Kemp on "Beads, Ancient to Modern use.". Doris showed lovely jewelry and gave a very nice talk.

Hostess for the meeting were: Mary Miller, Sister Jeanne Finske, Sister Marjorie Parker. A big thank you to these ladies.

Minutes accepted as printed in the Rockfinder by Mary Miller, seconded by Bob Miller.

Treasurer's report was read and filed for audit.

Margaret Heinek order pencils with 5 lines of imprint on for the Evansville show.

Field trips were discusses for fall and will be checked into.

Bob Heinek gave a report on machinery. If you are interested, please call Bob at 654-3673.

Marie Crull got our group 500 Indiana maps to take to the Evansville Midwest Federation show in July.

Bob & Margaret Heinek will take cases to Ventura, California.

Displays were by Mary Miller, bead work and 3 books, Ed Miller, gemstones for Southern Indiana, Diane Bowman, jewelry. Thanks members. Hope each member will take an interested in displays of their own and bring one in.

I told you I would put these changes in the minutes, so PLEASE correct your directory to show the following changes:

Rosback phone # should be 289-2946, Kelsheimer phone # should be 272-4834, Scherer phone # is 1-616-663-8967. Please add James & Sherry Russell, 27911 North Street, North Liberty, IN 46554, phone # is 289-7446.

Door prizes were given to Derek Stodden, Mary Mizer, Joyce Larson, Diane Bowman.

Attendance: 3 Guest, 1 Junior, 26 Members.

Respectfully Submitted,

Marie Crull

\* \* \* \* \*



From the JANUARY 1990 MWF NEWSLETTER

SCENIC STONES

It has been proposed that a 'competition' be organized which would result in a program (or series of programs) depicting scenes, pictures or images that have been found in stones. All the necessary guidelines have not been formulated nor is there a decision regarding prizes for this competition but it appears this is a good time to present this idea for consideration.

All entries would have to be on 35mm color slides with a written description. The name and address of the entrant must be written each slide. 'Winning' slides could not be returned (they would be kept on file for safekeeping). Information regarding the location where the material was found and/or any other interesting details regarding the discovery of the image should be included as part of the description.

DON'T SEND ANY ENTRIES YET. LET'S THINK AND TALK ABOUT ALL OF THIS A BIT MORE FIRST. Can you suggest any further guidelines or rules? Who should be 'judges'? What could we offer as prizes other than inclusion in a Program to be made available to the Clubs across the Midwest - perhaps across the country? If you know individuals who have such stones in their collections get their thoughts and write to the address below.

Then watch this column in future months for final details and be ready to send in your entry when details are announced!

PROGRAMS HAVE BEEN ADDED TO THE LIBRARY IN SEPT. AND DEC. READ THOSE MWF NEWSLETTERS FOR DETAILS.

Contact MWF Program Library c/o: Marge Collins, 3490 S. Hannan Rd., Canton, MI 48188. (313) 722-6043.

## SUNSHINE REPORT

Here I go again- putting something different in for the Sunshine Report. All I really had for the month of May were birthdays (which we are always glad to hear about, and some anniversaries). In my job with the MWF, I receive many exchange bulletins. In a recent one from Flint Flashes Newark, Ohio there was a very interesting article written by Ed Charles, of the Rock Buster News. In turn Lake Agassiz Rock Hound Apr.'90, The Glacial Drifter and Flint Flashes printed it. Now I am submitting it for our club to enjoy.

### HISTORY OF ROCK COLLECTING

#### B.C.

- 4000 - Meteoric iron, lead and copper were used by the ancient Egyptians.
- 3000 - Tin was known in Mesopotamia.
- 2700 - Sumerians produced baked clay tablets.
- 2637 - Chinese first described lodestone (magnetic iron ore).
- 1600 - Silver was known in Egypt, and at the time it was more precious than gold.
- 1300 - Iron was first smelted in Asia Minor.
- 600 - Europeans first described the magnetic mineral lodestone.
- 570 - Anaximander (Greek) had seen fossils in the rocks from the sea and considered that the earth must once have been covered with water.
- 240 - Chinese first observed Halley's Comet.

#### A.D.

- 132 - Chang Heng, in China, made the first seismograph
- 1500 - Leonardo da Vinci, Italy, explained the nature of sedimentary rocks and gave a correct account of fossils.
- 1669 - Bartholin observed double refraction in Iceland Spar (crystal calcite).
- 1672 - Robert Boyle showed that rock crystal (quartz) is not fossilized ice, as had been thought.

- 1772 - J. Kunkel von Lowenstern first recognized zinc. Diamonds were discovered to be a form of carbon.
- 1781 - Henry Cavendish discovered the composition of water (oxygen and hydrogen).
- 1788 - James Hutton distinguished fire-formed rocks from sediments.
- 1789 - H.H. Klaproth discovered uranium.
- 1799 - William Smith began identifying rock strata by their fossil contents.
- 1808 - H. Davy first isolated calcium.
- 1820 - Friedrich Mohs devised the scales for hardness of minerals.
- 1824 - H. Oersted first obtained impure aluminum.
- 1833 - Louis Agassiz did research on fossil fish.
- 1848 - Gold was discovered in California.
- 1852 - William Stokes discovered fluorescence.
- 1864 - Alfred Nobel discovered dynamite. (Peace Prize)
- 1877 - Edward Dana's TEXTBOOK OF MINERALOGY organized minerals by their chemical composition (oxide, silicates, etc.)
- 1912 - Alfred Wegener came up with the theory of continental drift (Pangaea), not accepted until the 1960s.
- 1928 - H. Geiger and W. Muller came up with the first Geiger counter to detect uranium.
- 1943 - Plutonium was first made from uranium (the beginning of the atomic age).
- 1968 - Man landed on the moon.

Many of you know some of these facts, but how many of us really knew all of these. I hope you enjoyed this review as much as I did.

BIRTHDAYS AND ANNIVERSARYS WILL BE ON THE FOLLOWING PAGE.

(continued from page 4)

**BIRTHDAYS****MAY**

- 1 - Adeline Niebauer
- 4 - Kenneth Stout
- 13 - Kathy Miller
- 22 - Marian Fiege
- 26 - Joe Fashbaugh

**ANNIVERSARIES****MAY**

- 3 - Gloria & Clayton Merrill
- 4 - Betty & Kenneth Stout
- 11 - Marilyn & Joe Meier
- 14 - Jane & Stan Kile (52)
- 28 - Marie & Bill Crull

Best Wishes and Congratulations to all!

Keep Smilin'

*Kathy*

\* \* \* \* \*

I received a letter from Catherine McHugh some time ago and I have finally found a big enough space to include the ole letter. I am really glad of that because her stories are always exciting.

Mexico Ole!

My daughter Margaret and husband John were here for a week and we left for a visit to Ensenada, a city in Baja, Mexico. The drive to Tecate, Mexico took us past the sand dunes, miles of vegetables in all stages of growth, and huge fields of cotton plants and asparagus being harvested by hand. It was much faster to enter Mexico through instead of Tijuana because it takes so long to get through the customs station in Tijuana.

Entering Mexico, we passed vineyards as far as the eye could see. Half way up to the foothills there were olive groves surrounding large haciendas--in fact we passed the largest olive grove in the world.

The two lane highway climbs from sea level to the 3,000 foot level, one curve after another. I was very happy there was not much traffic on the road. The treacherous curves ran between huge rounded boulders of granite, often larger than houses and my

heart was in my mouth as I wondered what was coming around each bend.

As we went up and up in elevation John

and Margaret (both geologists) would trace the change in the mineral composition of the rocks by the colors in the road cuts. Rock colors went from dark gray to salt and pepper and pink. They stopped at road cuts and explained to me when a magma chamber cools deep in the earth, the heavy dark materials crystalize first and settle. The intermediate minerals include white feldspar and black hornblende. The last and lightest minerals to crystalize are gray quartz to black mica and pink feldspar.

I tried to look as though I understood it all but it boggled my mind. To me the mountains are awesome. There were no trees to soften the landscape, just masses of huge tumbled rock. Margaret and John examined specimens while I tried to keep an indelible picture of the mountains silhouetted against the azure sky.

Ensenada is the third largest city in the Baja. It lies on the Pacific with the bay crowded with yachts, oil tankers, liners, and fishing boats. It is a bustling town of extreme contrasts of new foreign developments, expensive homes, and squalid housing. We stayed on the ocean front with with a breath-taking view of the sunset. The roar of crashing waves lulled us to sleep.

The next day we explored an endless number of little shops offering fantastic buys of leather goods, jewelry, perfumes, etc. Swarthy Indian women in shawls and long dresses carrying babies on their backs contrasted with young Hispanic girls in leather mini-skirts and the height of styles.

Eating out in patio restraunts was fun and I love Mexican food even though I cried while I ate--HOT! We drove up the coast to Rosarita, about 40 miles from Ensenada and were lucky enough to see a Gray Whale. This part of the coast is where the whales pass on their 6,000 mile migration from the Bering Sea to bear their young in the shallow lagoons of Mexico's Baja. Another sight along the coast would be the gorgeous homes and condos being built for the Americans who use them as vacation homes. I thought about retiring down there but after going through one of the new homes, I decided I couldn't afford \$200,000 for a vacation spot.

The drive home was uneventful except for a sudden stop by 8 or 10 Mexican Federales with machine guns. They meant business as they examined our car for "guns" no less. It was good to get back to Yuma. CATHERINE

## THE MISSISSIPPIAN PERIOD IN INDIANA - PART 3: By Paul Godollee, Club Member

Last month we discussed the Middle Mississippian formations in Indiana. We will describe the Upper Mississippian Period in this article.

The Upper Mississippian Formations in Indiana are broken down into 3 major groups- the Lower Chesterion, Middle Chesterion and Upper Chesturion. The Lower Chesterion is further subdivided into a 0 to 15 foot thick section of the Aux Vases calcareous sand stone at the lowest level. Occasionally there is some layers of green shale. On top of this is 0-38 feet of Paoli limestone. It is a compact, oolitic limestone dark grey to nearly white in color, sometimes broken by thin, calcareous gray shale beds, usually fossiliferous. Contains *Spirifer leidei*, *Composita trinucula* and rarely *Talarocrinus*.

5-30 feet of Mooretown sandstone follow this, with fine to medium grained cross-bedded sandstone with some layers of soft-gray to blue shale. Coal streaks common in shale with casts of *Lepidodendron* and *Stigmaria carbonica* below the coal seam and on top of the sandstone.

The next 2-20 feet of Beaver Bend limestone is highly oolitic, white, often massive and conspicuously jointed. Abundant *Productus* fossils with occasional *Talarocrinus* crinoid heads.

The next 25-30 feet of Sample sandstone is sometimes mixed with shale and sandy shale in places.

0-10 feet of Reelsville limestone lies above composed of thin oolitic limestone containing much pyrite which gives it its characteristic red color in weathered outcrops. Look for sharks teeth

*Endothyra*, *Pentremites* and crinoid heads in this formation. The next layer of 25-50 feet of

Elwren sandstone has occasional beds of sandstone and shale and thin beds of medium to fine grained limestone with ripple marks. The shale is blue-gray to olive green with maroon streaks.

The Beech Creek limestone is 8-30 feet thick of distinctive hard gray semi-crystalline limestone.

Weathers out into ragged cubical blocks displaying large crinoid stems. Also contains *Martina contracta*, *Pentremites godoni*, and *Productis inflatus* in Kentucky.

The Middle Chesterion begins with 25-40 feet of Cypress laminated sandstone in some localities with thin black shale beds between the sandstone and the Beech Creek limestone.

The Golconda Formation above ranges from 40-50 feet in thickness. Mixed limestone and shale. The limestone is coarse, crinoidal and often oolitic broken by thin shale beds. Contains chert. There is a 20 foot layer of olive colored shale below the limestone. You can find *Pterotocrinus* plates *Pentremites* and many fine specimens of the curious bryozoan *Archimedes*, which is screw-shaped.

The 25-45 feet of Hardinsburg sandstone and shale is occasionally massive and cross-bedded with ripple marks. It is followed by the famous Glenn Dean limestone 35-60 feet thick. massive layers of cream-colored oolitic limestone is intercalated with thin gray dense beds and 10-35 feet of fossiliferous shale and thin limestone beds. *Pentremites spicatus*, *Prismopora serrulata*, *Archimedes*, *Fenestella tenax*, *Fistulipora* and many crinoid species have been found.

The Upper Chesturion begins with the Tar Springs massive cross-bedded sandstone 0-90 feet thick



with bands of shale sandstone and limestone. Some scanty plant remains have occasionally been found, .40-60 feet of Vienna limestone is a variable shale with thin sandy beds and thin limestone. The shale is dark to olive green in color with the limestone weathering yellow.

0-25 feet of hard Waltersburg sandstone. resistant to weathering forms waterfalls. 40-65 feet of Menard limestone with shale and shaley limestone and one foot of fossiliferous limestone. The limestone layers are 2-20 feet thick. Abundant Allorisma, bryozoa and crinoid stems.

5-30 feet of Palestine sandstone above is fine-grained, hard and often quartzitic. It forms benches and waterfalls on the hillsides.

The next layer of Clore limestone is 20-45 feet thick. Consists mostly of shale with layers of thin yellow impure limestones. Contains Batostomella nitidula, and numerous Composita subquadrata.

The next layer of 10-35 feet of Degonia sandstone is fine-grained hard and often quartzitic. It often forms waterfalls.

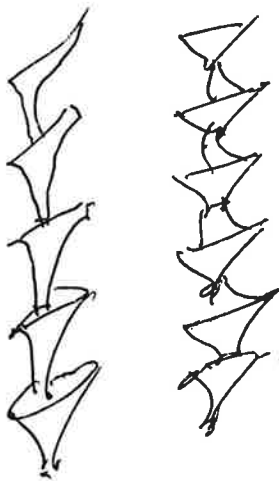
The Kinkaid limestone and shale comes in beds 20-35 feet thick when not cut out by the Pennsylvanian beds above. The 2-15 feet of limestone displays typical undulating bedding-planes on weathered surfaces.

Contains Spirifer increbescens and Chaetetes specimens.

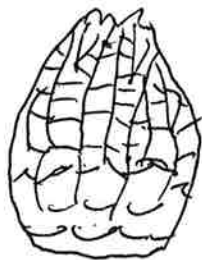
The Pennsylvanian formations above this begin with the Mansfield sandstone which we will discuss next month.

BIBLIOGRAPHY:

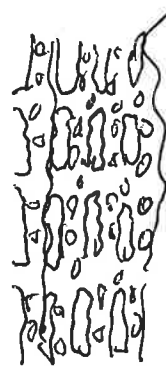
1. Cir 3. Guide Book-"Indiana Geologic Field Conference"-1948-Upper and Middle Mississippian Formations of Southern Indiana.
2. "Excursions in Indiana Geology"-by Burger, Rexroad, Schneider and Shaver, Indiana Department of Natural Resources Geological Survey Guidebook



Archimedes  
Bryozoa



Zeeerivites  
Crinoid Head  
Glen Dean Limestone



Fenestella  
Bryozoa  
Glen Dean

SYSTEM	GROUP	INDIANA OUTCROP FORMATIONS	ILLINOIS BASIN SUBSURFACE NAMES
PENN.	Pottsville	Mansfield ss.	Mansfield ss.
		Kinkaid ls. 25 ft.	Lower Kinkaid ls.
MISSISSIPPIAN	Upper Chesterian	Degonia ss. 15 ft.	Degonia ss.
		Clore ls. 25 ft.	Clore ls.
		Palestine ss. 10 ft.	Palestine ss.
		Menard ls. 55 ft.	Menard ls.
		Waltersburg ss. 7 ft.	Waltersburg ss.
		Vienna ls. 50 ft.	Vienna ls.
	Middle Chesterian	Tar Springs ss. 40 ft.	Tar Springs ss.
		Glen Dean ls. 55 ft.	Upper Glen Dean ls. Glen Dean ls.
		Hardinsburg ss. 30 ft.	Hardinsburg ss.
		Golconda fm. 45 ft.	Golconda fm.
	Lower Chesterian	Cypress ss. 30 ft.	Jackson sand
		Beech Creek ls. 15 ft.	Barlow lime
		Elwren ss. 38 ft.	Cypress ss.
		Reelsville ls. 3 ft.	Paint Creek ls.
		Sample ss. 30 ft.	Bethel ss.
		Beaver Bend ls. 15 ft.	Upper Renault ls.
		Mooretown ss. 20 ft.	
		Pooli ls. 25 ft.	Lower Renault ls.
Aux Vases ss. 5 ft.	Aux Vase ss.		

Compiled by C. A. Malott, R. E. Esarey,  
and D. F. Bieberman, April, 1948.

GENERALIZED STRATIGRAPHIC COLUMN OF UPPER MISSISSIPPIAN FORMATIONS IN INDIANA