

## MICHIANA GEM AND MINERAL SOCIETY

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1106 Clayton Dr., So. Bend, IN 46614

451 S. Illinois St., So. Bend, IN 46619 1606 E. Madison St., So. Bend, IN 46617

Place: Westminster Presbyterian Church

West of the St. Joseph River

1501 W. Cleveland Road

Membership.....Members and Board of Directors

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 p.m. EST

Fourth Sunday of each month

June - Field Trip Meeting

July - No meeting

August - Annual Club Picnic

December - Date to be announced - Christmas Party

Dues

Individual Family Junior

\$ 6.50 per year 10.00 per year 2.00 per year

South Bend, IN

### Rockfinder Staff

Editor.....Joyce Larson Co-Editor.....Margaret Heinek Staff.....Bob Heinek/Club Members 144 Spruce Dr., Westville, IN 46391 7091 E. East Park Ln., New Carlisle, IN 46552

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DECEMBER 1991 SOUTH BEND, IN

MEETING:

January 26, 1992

Doors Open 1:30 p.m. Meeting at 2:00 p.m.

PLACE:

Westminster Presbyterian Church

1505 W. Cleveland Road

South Bend, IN

West of the St. Joseph River

PROGRAM:

Will be announced later.

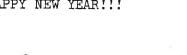
HOSTS:

Irene Ungurait will notify our

first 1992 hosts for the

January meeting.

WE WISH YOU A MERRY CHRISTMAS, AND A.....





HAPPY BIRTHDAY TO ALL CLUB MEMBERS CELE-BRATING THIS MONTH. AS I AM READYING THE DECEMBER "ROCKFINDER" FOR PRINT I DO NOT HAVE THE LIST OF BIRTHDAYS OR ANNIVERSARIES. ENJOY YOUR SPECIAL DAYS AND WE WILL PLAY CATCH UP WITH INFORMATION IN JANUARY.

"Most folk's accomplishments were inspired by being needed by somebody."

(--Compliments of Dr. Harry Raplus, Professor Emeritus - Education Upper Iowa University, Fayette, Iowa)

# DECEMBER BIRTHSTONE - TURQUOISE

Turquoise is one of the minerals most favored as a gem since prehistoric times. Ancient mines in Egypt and Persia produced it many centuries ago and the Persian deposits near Nishapur are still productive. The material they yield is accepted as the standard of quality for clear blue stones containing a minimum of iron-colored matrix. When the matrix, or adjoining rock is present as a delicate veining, it creates the delightful spiderweb pattern, desired by many buyers as a sign of genuineness. Turquoise reaches its peak of popularity with the American Indians, to whom it holds a good deal of symbolism as well as beauty. The one extensive deposits near Sante Fe, N.M. are largely depleted. The leading ones now are in Nevada and Colorado. The mineral usually occurs in stringers and small nodules. Large pieces of turquoise have

been found in copper mines in Arizona. The word turquoise is French for "turkish", the Persian stones have reached Europe by way of Turkey.

(--via Fulton County Rock Hounders)

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TRANSLATION: DUES ARE DUE!

MINUTES OF THE NOVEMBER 1991 MICHIANA GEM & MINERAL SOCIETY:

President Heinek opened our regular meeting at 2:15 p.m.

Introduction of guests were Alice Garwood, Meg Auth, Ron Elias.

A motion made by Stan Kile to accept the minutes printed in the ROCKFINDER and seconded by Pam Rubenstein.

Sister Jeanne gave a treasurer's report which will be filed for audit.

A check was sent to Hope Rescue Mission to feed 4 people on Thanksgiving Day.

Our hostesses for the meeting were Addie Neibauer, Viola Robinson and Catherine McHugh. A big thank you to these ladies!

Gordon Dobecki gave a report on his gem classes. Please call Gordon for classes at 259-7055 if you are interested.

Paul Godollei has 4 videos in our library now. He also asks that all books PLEASE be returned to the library by the Christmas Party. If you cannot come to the party, call a member and ask them to please bring it for you.

Bill Crull made a motion to have the club buy the video on "Flintknapping" seconded by Clarence Finley.

Displays were shown by Paul Godollei on fossils, Ed Miller & Jerry Goble showed Calcite and Marcacite, Bob & Margaret Heinek had petrified pine.

The club has purchased display cases. If you purchase a case Margaret asks that you please display in our show. The cases are \$20.00 each. Terre Haute still has five more.

PLEASE SEND YOUR 1992 DUES TO - Sister Jeanne Finske at Lourdes Convent, St. Mary's, Notre Dame, IN 46556 by January 1, 1992.

Paul Godollei received a certificate from the American Federation. Jessie Zeiger also received a certificate for her article on Egypt. Margaret & Bob Heinek and Bill & Marie Crull will represent our club at the Geodon Show in Wheaton, Il this next weekend.

A program was given by Clarence Finley on "Wirewrapping of Jewelry" (rings and crosses). Very nice, Clarence!

New Officers for 1992 will be:

Pres.

Margaret Heinek

V Pres.

Bob Miller

Secy.

Pam Rubenstein

Treas.

Sister Jeanne Finske

Paul Godollei made the motion to accept these officers, seconded by Stan Kile.

### CHRISTMAS PARTY----

Margaret will buy the beef & ham. Club will furnish rolls, butter, coffee and punch. Each person is to bring their own table service, plus a dish for each 2 people and a serving spoon or whatever you need for your dish. Eat 1:30 p.m. Also, please bring your \$3.00 gift if you expect to take one home. Bill & Marie Crull and Marsha & Ed Miller will decorate. Cathering McHugh and Kathy Miller will take care of the cheese table.

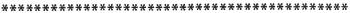
Door prizes went to Alec Rubenstein, Jerry Goble, Kevin Klodzinski, Mary Etta Miller, Joe Fashbaugh and Mike Klodzinski.

There were 32 adults, 3 children and 3 guests present.

Please add our new member to your directory:

Alice Garwood 616/445-3425 56389 Penn Road Cassopolis, MI 49031

Respectfully Submitted, Marie Crull





### MARGARET'S COLUMN -

MERRY CHRISTMAS from the Heineks. I hope you and yours ave a wonderful Holiday Season. It has been a pleasure to know all of you and hope we have more contact in the coming years. It has been such a pleasure to have served as your president.

I want to thank everyone for the help you have given the club this last year. As you know this club is active due to you and your family. So, if you are asked to serve on a committee in 1992, please feel you are needed.



My special thanks to the 1991 officers and committee chairmen. One of the hardest working members, Joyce Larson, has taken over the ROCKFINDER, and she is doing an excellent job. We have had such a good bulletin for lo these many years, and Joyce is publishing a good one too. Our librarian, Paul Godollei, has worked under the worst of circumstances, having to bring the books to the meetings. He has tried to call in the books that have been out so long, but some have never been returned. Certainly wish we had a storage space for them. We do have a very nice book case, but no place to put it. I do not want to miss anyone that has worked so hard this year, so don't feel I am ignoring you.

I sincerely hope our shut-ins will have a good year. We miss Bess and Jess Wise, and wish they were able to join us at a meeting. It has been several years since we have seen Del and Tess Miller, so we would like an update on them, miss you two!!! Just heard Sherry Russell was in the hospital a month or so ago. I know she is better, as we saw her last month at a couple of shows. There are so many of our members that we only see once or twice a year, so if you do not get to the meetings, let us hear from you once in a while, o we will know how you are.

Bob and I have seen several of our dealers at recent shows, and they send their regards and wish "A Very Merry Christmas" to all of the Michiana Gem Society members.

Keep in mind the AFMS-MWF Convention that will be held in Brunswick, Ohio, July 23-26, 1992. If you would like to go, display and/or compete, let me know and we will get you information on camp grounds and motels in the area. There will be several field trips that I imagine a lot of people would like to attend. So plan your vacation now, then when the plans are complete for the field trips, you can sign up to go.

MERRY CHRISTMAS and HAPPY NEW YEAR.

Margaret

## CRYSTAL REPAIR HINT

If you have been looking for a cement to repair quartz crystals check with your local hardware store for a product called CRYSTAL CLEAR. It is made by Duro, and comes in a small plastic red syringe.

It has the same refractive index as glass, is crystal clear, and is cured with UV light. mewhat thick, (only a small amount is needed), the cement dries in a few seconds

under bright sunlight or a longwaver ultra-violet lamp. Under a shortwave lamp it takes longer. On a broken quartz crystal the repair almost disapppears.

The package says it can be used for fill holes and to repair glass. It should also be good for repairing many translucent minerals, especially those having a refractive index close to quartz.

(--via Mineral News, Lapidarian, & The Rockpile)

THE PENNSYLVANIAN AGE IN INDIANA - Part 1 (November 1991) by Paul Godollei, Club Member

Previous ages showed evidence of the seas and the life that lived in them - the Pennsylvanian age in Indiana was almost equally divided between periods when the area was land and sea. The area was low and almost flat, and the relative area of the land and sea changed often, with periods of short invasions of the sea, followed by lowlands covered with dense swamp forests which later supplied the materials for our coal beds, lycopods, norsetails, seed ferns, gymnosperms as well as true ferns flourished in the swamps. In 1843 the stumps of 20-25 fossil trees were discovered standing upright in slaty clay above a coal seam along the banks of Big Creek, 12 miles from New Harmony in Posey County, Indiana. These have been classified as from the lycopod genus - LEPIDOPHLOIOS. One of the stumps measured 10 inches in diameter and was 2 feet high. There are 13 major layers of coal beds in Indiana, and many minor ones not profitable enough for commercial mining, with layers of clay, shale, sandstone, sand and coal in alternating layers between: This indicates that the land and sea were constantly changing over the 25 million years that the Pennsylvanian age lasted.

During the times when the period was sea, brachiopods, cephalopods, corals, bryozoans, protozoa, pelecypods, gastropods, crinoids, and echinoids were abundant. Trilobites became rare. Euripterids were present.

The swamp forests during the periods when the seas receded were filled with giant insects, dragonflys, cockroaches, fish, amphibians were mostly reptiles and spiders were also present. Primitive types of crayfish and crabs began to develop.

The trees and plants that developed included giant lycopods, including lepidodendrons that grew to heights of 100 feet, with diameters of 2 to 3 feet. The Equisetales, or horsetails also grew to giant sizes of 75 ft., even though the trunks were hollow! The exterior surfaces of the stems and roots have been found in Indiana, along with branches and the needle-like leaves. Cones and spores have also been found of Calamites and Annularia.

Small herbaceous plants such as Sphenophyllum have been discovered also, and fernlike plants such as Asterotheca, Ptychocarpus, and the fern leaf Odontopteris. Pecopteris and Sphenopteris were likewise abundant seed ferns and true ferns. An Abundant gymnospermous tree, Cordiates, with its long straplike leaves grew to be over 100 feet tall. Stem and leaf remains, pith casts and winged seeds and pollen casts have also been found.

Further discussion of the fossil plants and animals will be discussed in later articles, as well as the localities where they may be found.

Bibliography: Fossil Plants of Indiana: Indiana Geological Survey Report #14, 1959, by James E. Canright.
Indiana Dept. of Geology and Natural History, 15th Annual Report, 1886 by Maurice Thompson, State Geologist-pp12, 18-25.

My apology to Paul for not getting this article into the November ROCKFINDER. I had just finished printing the November issue, had the copies stapled and folded and headed for home - there to find the above article sitting in my mailbox. Sorry again for the delay.





## THE SMITHSONIAN - DEPOSITORY OF OUR NATURAL HERITAGE ...

Pur National Museum of Natural History is undertaking a ampaign to raise funds for the creation of a new Hall of Geology, Gems, and Minerals. Your American Federation is very excited about the renovation plans for this new Smithsonian exhibit and we hope that you will be too.

The National Museum of Natural History is part of the Smithsonian Institution in Washington D.C. It is more than just a museum, its scientists are not only actively involved in the continuing study of our planet and the forces that shape it, but it contains one of the world's finest collection of rock, mineral and volcanic specimens. It has

It has been a number of years since a major renovation such as the one planned has been undertaken in this museum. The world-renowned Gem and Mineral Hall opened in 1958. Since then, exhibit styles and technology have passed through several generations. Displays have been revolutionized by interactive computers and specialized techniques. Many spectacular gems and minerals have also been added to the collection. While these items would rival anything presently on display they have been relegated to storage for lack of exhibit space. The museum staff estimates that of the overall collection only two percent are on display.

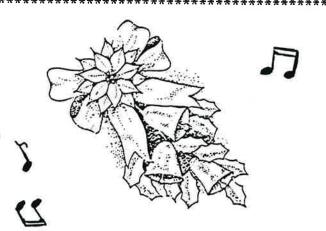
The new Hall of Geology, Gems, and Minerals will use state-of-the-art techniques to tell the history of the origin of the world and the geologic processes which are still at work today. Plans call for the use of equipment such as interactive computers, video monitors, seismic monitor and earthquake tables to tell the story. Subjects that will be addressed by the displays include the theory of plate tectonics, the recreation of a mine and demonstration ? volcanic activity.

Every year approximately seven million visitors view the Museum's exhibits and displays. The Smithsonian believes it has a very important obligation to provide accurate information to its public about occurrences in natural history.

In the coming months watch for more information about the new Hall of Geology, Gems and Minerals. We will be keeping you informed about this exciting project as it moves from the drawing board into design and finally construction. And we want to tell you about some of the very exciting gems and specimens in the collection. In the meantime your AFMS is asking for your contributions to its fund raising efforts for this very worthy project. Please make checks payable to the "AFMS SMITHSONIAN MUSEUM FUND" and send them to Dixie Lee Alf, Treasurer, 816 Whippoorwill Ct., Bartlesville, OK 74006 or Margaret M. Pearson, Chairperson, 9034 West Lisbon Avenue #24, Milwaukee, WI 53222.

(AFMS Newsletter)

Margaret M. Pearson, Chairperson AFMS Smithsonian Museum Fund Committee 



Tomorrow is the greatest labor-saving device invented.

Punctuality is fine if you don't mind waiting.

( -- The Mean Harris Collection, Sarasota Florida and The Rockpile)





### MINERALS FOUND IN INDIANA GEODES

Geodes have long been referred to as "The Jewel Box of Indiana".

For the thumbnail and micromount collector they are much more than a Jewel Box, they are a "Treasure Chest" of a large variety of minerals. The greatest variety and source of minerals occurs in geodes.

I lived in southern Indiana in "Geode Country" for many years. My first interest in geodes was collecting them for my rock garden. As the rock garden collection grew I became interested in the different shapes and forms one could find, such as the geodized fossils.

The different minerals I found in them had always interested me, but it was after I became 'addicted' to the microscope that I realized the wealth of minerals they were hiding. Each one you open can be a pleasant surprise; such as a cluster of Barite in a sheaflike aggregate of tabular crystals, or bright cubes of pyrite of different colors amid sparkling clear quartz crystals; irridescent dolomite with filiform pyrite sprinkled over it, or chalcopyrite with tiny malachite crystals. The combination of minerals and different crystal formations you may find can be a never ending source of information.

Listed are identified minerals that have been found in Indiana.

(--by Mary Dodds in Geologem, via Strata

- 1. Anhydrite
- 2. Aragonite
- 3. Asphalt
- 4. Barite
- 5. Calcite
- 6. Celestite
- 7. Chalcedony
- 8. Chalcopyrite
- 9. Dolomite
- 10. Galena
- 11. Glauconite
- 12. Goethite
- 13. Gypsum
- 14. Kaolinite
- 15. Limonite
- 16. Malachite
- 17. Marcasite
- 18. Millerite
- 19. Pyrite
- 20. Pyrrhotite
- 21. Quartz
- 22. Selenite
- 23. Siderite
- 24. Sphalerite
- 25. Smithsonite
- 26. Smythite
- 27. Strontianite
- 28.

I am sure there are others not listed that may have been found, if so, let us know about them. Just one last thought, as we know the geodes in Indiana were formed in the Mississippian Period, the next time you open a geode just stop for one second and think. "This has been here three hundred million years and I will be the first person to see the beauty that hides inside this shell".

Data) 

---AND ANOTHER ARTICLE ON GEODES--- (--by Lloyd N. Owen from Rocks & Minerals, Crystal Gazer, Smoke Signals, Serendipity Gems & Strata Date)

### OPENING AND CLEANING GEODES

The opening of Geodes can be a pleasurable and surprising experience IF THE PROPER TOOLS

The pro uses a set of two hardened steel points fastened to a hand or powered press. He thus applies pressure from two sides. This works real well, but the outfit is rather

(continued on page 7)

### OPENING & CLEANING GEODES - continued:

expensive. Another ideal way is to score the geode all the way around rather deeply with your trim saw. You can do this by raising the splash guard and rotating the geode by hand until cut all around. It is then very simple to use a screwdriver to pry the sections apart. The third and most used method is to lay the geode in a soft (earth) depression. Look the geode over for any cracks or weak spots. These should be found and force applied there. When you have decided where you will apply pressure, use a medium weight hammer and center punch. (NEVER USE STEEL CHISELS). Put the punch in a spot most likely to keep it from sliding off, and hit several blows; easy at first, then harder. Regardless of the method used, always use gloves and safety glasses. Keep your sections together with tape or rubber bands when transporting them home. Remember, do not hit geodes with your hammer. You may have on safety glasses, but what about the rockhound ten feet away. Chips and burrs from your tools fly like bullets.

After the geodes are opened, extreme care should be taken when cleaning so as not to destroy the many micro crystals they often contain. These are very tiny and easy to overlook. Smythite, siderite, goethite, millerite and strontianite are a few hard-to-come-by crystals that are most times destroyed by the rockhound when cleaning his specimen with brush and water. If the geode, when opened, has iron oxide stains, (brown coloring), these crystals in all probability have already been destroyed. On these it is safe to wash with a hose and brush. If the discoloration is still present after using soap, water and brush - soak in a solution of oxalic acid, 1/8 cup oxalic acid crystals per each gallon of water. (Oxalic acid may be purchased in any drug store). As much mud as possible should be removed before soaking in acid. Do this with a piece of wire, ice pick, etc. - care must be taken so as not to scratch the crystals. CAUTION: DO NOT ALLOW ACID TO TOUCH YOUR SKIN! USE RUBBER GLOVES! Using a hose and brush occasionally will help speed the cleaning peration: eyen though it may take as much as six months to clean all stain from your specimens. When clean, wash in mild soap and rinse extra well.

This method will be very effective when geodes are quartz lined, but oxalic acid will dull or even discolor most of the material while in acid, take it out, wash well and start over with a weaker solution.

#### FOOD FOR THOUGHT

By the year 2042, scientists believe that 12 of 20 of our recoverable mineral resources may be gone! They are crude oil, natural gas, Uranium 235, lead, zinc, tin, gold, silver, and platinum, which will be gone before the year 2000, and tungsten, copper, and helium, which will follow in quick succession. (Quoting a U.C.L.A. Santa Barbara professor in Science Year.)

#### DUES ARE DUE!!!!!!





COUPON - GOOD FOR 50 CENT DISCOUNT ON 1 ADULT ADMISSION

### STATE FOSSILS

Source: U. S. Geological Survey

OFFICIAL STATE FOSSILS as of May 1991

Basilosaurus cetoides, Eocene whale Alabama Mammuthus primigenius, Pleistocene mammoth Alaska Arizona Araucarioxylon arizonicum, Triassic petrified wood Smilodon californicus, Pleistocene saber-tooth cat California Colorado Stegosaurus, Upper Jurassic dinosaur Florida Eupatagus antillarum (unofficial), Eocene heart urchin Shark tooth (no genus or species specified) Georgia Indiana Crinoid proposed; in legislative review Kentucky Brachiopod (no genus or species specified) Louisiana Petrified palm wood Pertica quadrifaria, Devonian plant Maine Maryland Ecphora gardnerae, Miocene marine snail Massachusetts Dinosaur tracks Zygorhiza kochii, Eocene whale Mississippi Missouri Crinoid Montana Maiasaura, Uppper Jurassic dinosaur Mammuthus (Archidiskodon), Pleistocene mammoth Nebraska Nevada No state fossil\* New Mexico Coelophysis, Upper Triassic dinosaur New York Eurypteris remipes, Late Silurian sea scorpion North Dakota Teredo (bored) petrified wood, Paleocene Isotelus, Ordovician trilobite Ohio Phacops rana, Devonian trilobite Pennsylvania South Dakota Triceratops prorsus, Upper Cretaceous dinosaur

\* The 1989 State Geologists Journal listed as Nevada's state fossil the marine reptile, Ichthyosaurus.

Calymene celebra, trilobite

Knightia, Eocene fish

Allosaurus fragilis, Upper Jurassic dinosaur

Fossils have been chosen for the official state stone, rock or gem by several states:

Florida - agatized coral of Miocene age (state stone)

Michigan - Hexagonaria percarinata, Devonian coral, commonly known as Petoskey Stone (state stone)

Mississippi - petrified wood (state stone)

Texas - fossilized palm wood (state stone)

Vashington - petrified wood (state gem)

Vest Virginia - Lithostrotionella, Mississippian coral (state gem)

Utah

Wisconsin Wyoming.

## SEASONS GREETINGS FROM YOUR EDITOR

This is my change to wish all of the club members "HAPPY HOLIDAYS"!!!

Being a member of the Michiana Gem and Mineral Society has been a pleasure for me. I have encountered a lot of opportunities since joining our group, and made new friends. Never before did I buy a rock - I am now. At the time I pick out a particular rock, it's my present to me. When I turn out a finished project, it's my present to whomever, usually a family member as I am a bit slow in finishing a piece of jewelry and a bit selfish when it comes to parting with it. If it was not for our club, I would not have had the chance to do this type of work. It was through the club that I was able to buy some used equipment; a tumbler, saw, grinder & polisher unit. Without the teaching of Gordon Dobecki, I would not have known how to use this unit, or what to do with the slab I had purchased. Without the help of Dick Scherer in making my unit workable, he did the "riggin'", I would still be trying to figure out "how to". Without the teaching of Joan Scherer I would never have made the silver jewelry I have. Now a new challenge, Mr. Finley's wire wrapping class. My first ring was not the most professional piece of work - I was proud of it and I know it will get easier and better.

There is so much talent in our club to be shared - take a look at Mr. Godollei and his knowledge of fossils; the trips & adventures of club members for our programs! I really appreciate what I have learned so far and look forward to many more opportunities. Thanks to all!

My holidays will be spent away from Indiana. On December 24th I am flying to San Antonio to spend Christmas with my grand-daughter & family. On the 30th I will go on to California & spend New Year's with my grandson & family. Note I list the "grands" before daughters. I miss them all but it seems as if the grandkids always look forward to Grandma's visit. Guess it's because I'm a kid at heart myself. I can spend time with the grandkids that I never had to spare when my own were growing up. Best Wishes to

