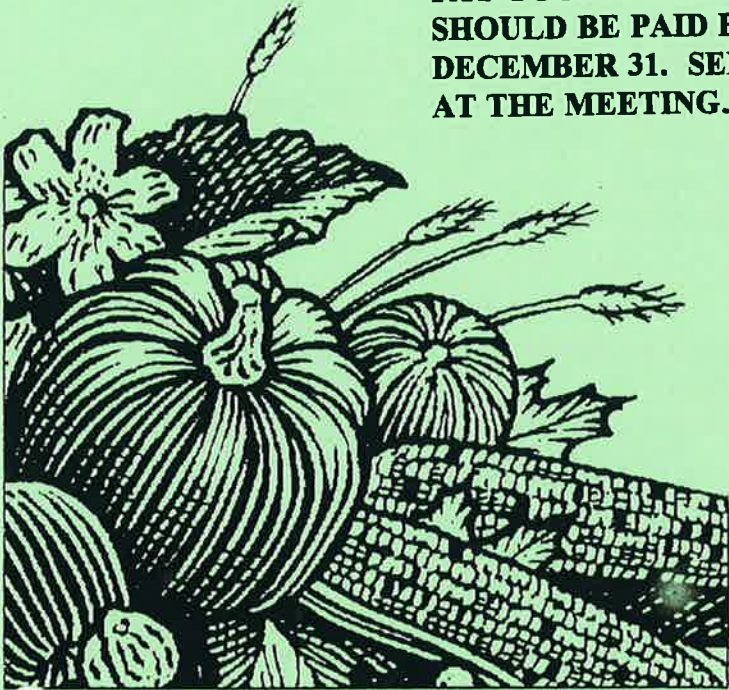


# THE ROCKFINDER

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

**PAY YOUR DUES. YOUR DUES  
SHOULD BE PAID BEFORE  
DECEMBER 31. SEE DIANE GRAM  
AT THE MEETING.**



# THE ROCKFINDER

NOVEMBER, 1998

# MICHIANA GEM & MINERAL SOCIETY

## 1998 BOARD OF DIRECTORS

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 Educational Emily Johnson  
 Librarian Diane Gram  
 Historian Ed Miller 498-6513  
 Sunshine Sally Peltz (616) 683-4088  
 Publicity Phyllis Luckert  
 Field Trips  
 Membership All Members

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. Regular exceptions include May (third Sunday), June (field trip), July (no meeting), August (club picnic) and December (Christmas party).

Board meetings are held before the general meetings.

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.

*The Rockfinder* is published monthly except July and August. Staff: Editor, Tom Noe, 305 Napoleon Blvd., South Bend, IN 46617. Co-editor, Herb Luckert, 221 Marquette Ave., South Bend, IN 46617. 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 289-2028 or 282-1354. Permission is hereby granted to reprint any original *Rockfinder* articles, as long as due recognition is given along with the reprint.

✂ STANDARD BUSINESS REPLY MAIL PERMIT NO. 100 SOUTH BEND, IN 46617 POSTAGE WILL BE PAID BY ADDRESSEE

### Yearly Membership Dues (Payable by January 1)

\_\_\_\_\_ Individual \$10.00 per year  
 \_\_\_\_\_ Family \$15.00 per year  
 \_\_\_\_\_ Junior \$1.00 per year  
 \_\_\_\_\_ Subscriber \$7.50 per year

(One-half these amounts after July 1)

Please indicate areas of special interest.

General Geology\_\_\_ Beads\_\_\_  
 Gems & Minerals\_\_\_ Silversmithing\_\_\_  
 Fossils\_\_\_ Artifacts\_\_\_  
 Cabochons\_\_\_ Rockhound\_\_\_  
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 Other\_\_\_\_\_ Jewelry making\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City, ST., Zip \_\_\_\_\_

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

Will attend meetings?

Name \_\_\_\_\_  
 Birthday \_\_\_\_\_ yes \_\_\_ no \_\_\_

Name \_\_\_\_\_  
 Birthday \_\_\_\_\_ yes \_\_\_ no \_\_\_

Name \_\_\_\_\_  
 Birthday \_\_\_\_\_ yes \_\_\_ no \_\_\_

Name \_\_\_\_\_  
 Birthday \_\_\_\_\_ yes \_\_\_ no \_\_\_

Date of Wedding Anniversary \_\_\_\_\_

Phone \_\_\_\_\_

# THE ROCKFINDER

Newsletter of the Michiana Gem & Mineral Society

Volume 38, Number 9

November, 1998

**Meeting:** Sunday, November 22, 1998  
Doors open at 1:30 p.m.  
Meeting at 2:00 p.m.

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

**Program:** A video from a PBS series entitled  
"Miracle Planet."

**Hosts:** Addie Niebauer, Mike Slattery

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#### December Birthdays

1 Ann Robbins  
6 Joey Bieschke  
9 Margaret Schultz  
10 Marge Hawkins  
15 Carl Simpkins  
19 Lynn Miller  
24 Clayton Merrill  
24 Joan Rosback  
28 Bonnie Brueske  
29 Bob Heinek, Sr.

#### December Anniversaries

22 Bob & Judy Heinek

# Happy Thanksgiving



## TOP 10 WAYS TO TELL IF YOUR TRILOBITE IS FAKE

10. It has a battery compartment.
9. It melts in your mouth, not in your hands.
8. The expiry date on the bottom says "Permian period."
7. It comes attached to a shower rope.
6. It has "Made in Morocco" stamped on the back.
5. It comes with a child-proof safety cap.
4. When you put it in water it grows green hair.
3. It's still twitching.
2. When you turn it upside down it's eyes close and it says "Waaaah!"
1. It's from the Bre-X mine in Indonesia!

## MARGARET'S COLUMN



It was so good to see so many of our new members and some "old" members at the last meeting. I hope that we see more of new and old at the November meeting. This will be very important, since this is the time of year we vote on new officers. If anyone wants to nominate a member for an office, please do so, but make sure you have permission to name the person. The vote will be this month, and those elected will take office at the Christmas party in December.

In October Tom Noe gave a very interesting program on agates, and I am sure everyone was able to learn more about them. Tom is very knowledgeable when it comes to "those beautiful agates."

We were so sorry to hear about Bess Wise's fall and being laid up with a bad back. Our thoughts are with her for a speedy recovery. Hope to see you, Bess, at the Christmas party. A report was given me last week about an accident Alec Rubenstein had with the lawn mower. "Gotta watch those toes, Alec!!!"

I was sorry to miss the trip to the Field Museum on Sunday Nov. 8, but I am sure no one wanted to share my cold. I heard it was fun, and very interesting. Our trips are always educational and fun. Kathy Miller does a good job planning them. She asked if we planned on a weekend trip next fall. I, for one, look forward to them.

Please start saving your egg cartons, the plastic holder that comes on the top of soft drink cans (the plastic that holds the cans together), extra rock, mineral and fossil specimens that we can use for grab bags and "collections" in the kiddies' area at the September show.

I had a call from the South Bend library asking if the club will come again next year to Science Alive. I told them I imagine the club will be there. They are sending information about the 1999 session.

Bob and I talked in two schools to 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grades, on rocks, fossils, minerals and the world. All I can say is, "most of the youngsters are well versed in the collecting of stones." The club gave us

permission to give colored, polished stones to each child. You would have been pleased to see how much they liked them. I am going to quote from some of the letters we received from the students at St. Joseph school. (I kept the original spelling.)

See you at the November meeting.

\* \* \* \*

"Thank you for coming and sharing some rocks with us. I really like them, especially the dino droppings and fossilized pieces of ancient trees. Matt."

"Thank you for coming to talk to us about rocks, minerals, crinoids, and petrified wood. Thank you for sharing your rocks with our class. My favorite thing was the crinoids. Thank you once again for your time."

"Thank you for coming to my class at St. Joe Grade School and teaching us about rocks. It was really fun and interesting and I learned a lot. I liked the movies and it was really nice of you to give us those rocks."

"I enjoyed learning about your different rocks. I also thank you for all the rocks you gave to everyone. I did not know that there was a theory that asteroids formed earth."

(This young man drew pictures of a geo(de), obsidian, sandstone, quartz.)

The teacher, Cheryl Madison, reported that the students liked the polished stones from the club, and many of the students keep them on their desks.



## MINUTES OF THE OCTOBER 25, 1998, CLUB MEETING

President Margaret Heinek called the meeting to order at 2:05 P.M. Present were 25 adults and 1 junior member.

Several members brought in examples of agates. Junior member Lauren Slattery brought a rock with a trilobite fossil which she found in an area just outside her school. When she found it, she identified it and showed it to the other students. Bob and Margaret brought in a display of minerals and asked members to help identify the specimens for use with school children.

Door prizes went to Don Church, Phyllis Luckert and Diane Gram.

Treasurer Diane Gram noted that dues for the upcoming year were being accepted. All dues are due before December 31. Hostesses Jesse Zeiger and Diane Gram prepared a treat of apple cider, cupcakes, popcorn and caramel corn, all arranged in a Halloween theme with colorful gourds, Indian corn and orange napkins. Many thanks!

Two new family memberships were announced: Fred and Pat Baker and Don and Yvonne Church. All were present at the meeting and were introduced.

The minutes of the September meeting as printed in the *Rockfinder* were amended to say that Bob and Margaret spoke at Corpus Christi school, not Christ the King. Sr. Jeanne made a motion to accept the minutes as amended; Phyllis Luckert seconded and the motion was approved.

Treasurer Diane Gram gave a report on the club finances, which will be filed for audit.

Margaret noted that the profit from the 1998 show was a little less than for last year's show. We discussed the issue of competition from other activities on the Labor Day weekend. Margaret said that the dealers still liked that date and were satisfied with their sale results, so there is no plan to move to another weekend.

Kathy Miller gave a report on the status of the bus trip to the Field Museum in Chicago. Five seats (later changed to six) are still available. Members

were invited to let Kathy know if any nonmembers have an interest in filling up the remaining seats. Admission to the museum is \$7 for adults, \$4 for seniors and children.

Kathy Miller made a motion, seconded by Don Church, that the club send \$200 to Our Redeemer Lutheran Church in appreciation for their letting us use the church facilities for our monthly meetings. The motion passed unanimously.

Margaret explained a kids' activity which we might be able to introduce at the Labor Day show. It involves a lot of brown paper grab bags with plastic handles fastened on top (from six-pack holders). Kids are given a fishing pole to hook a bag, which is filled with small fossils and minerals. Everyone liked the idea, so we'll start saving the plastic holders and use a future club meeting to fill the bags. Betty Stout has donated Petoskey stones and Indiana geodes to the club for use in our kids' activities. Thanks, Betty.

Elections are coming up next month. Nominations prepared by the committee included Margaret Heinek, president, Gladys Pacholke, secretary, and Mike Slattery, liaison. Nominations from the floor were Ed Miller for vice-president and Bob Heinek for treasurer. All club members should try to get to the November meeting to elect the officers for next year. Other nominations may be made to Sr. Jeanne, chair of the committee. (We would like to have another nomination for treasurer. Bob will do it only if there is no one else nominated.)

Tom Noe presented a program on agates and how they are formed. He defined agates and illustrated a variety of types, using examples from his collection that we could pass around.

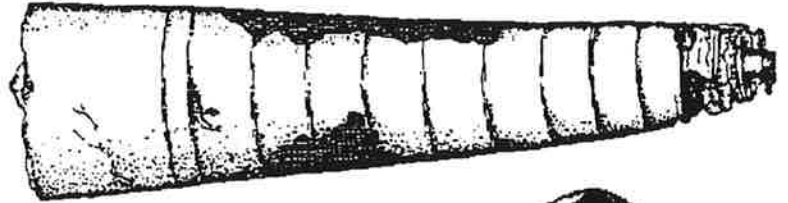
The meeting adjourned at 3:55 P.M.



# Common Cincinnati Fossils



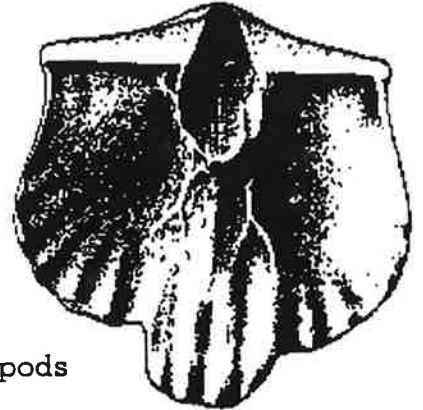
Trilobites



Cephalopod



Bryozoan colonies



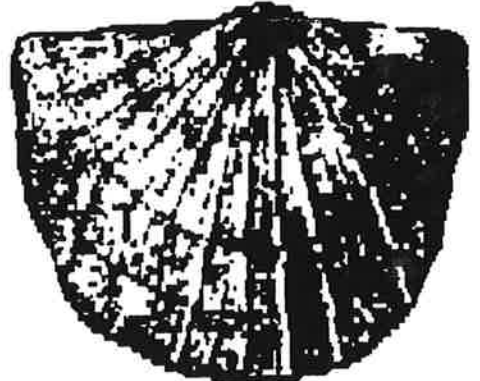
Brachiopods



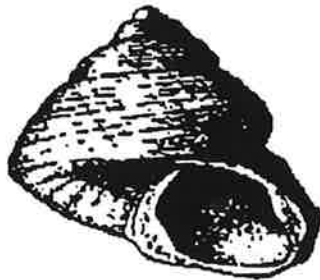
Edrioasteroid



Crinoid (top)



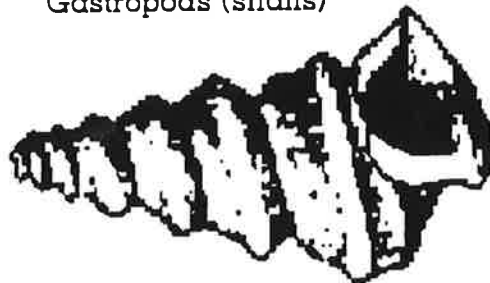
Horn coral



Gastropods (snails)



Pelecypods (clams)



**SHELL ENGRAVING**

Glen R. Hanning, Lapidary Arts Chairman, MWF

For about a year now I have been learning to do shell engraving. In some ways it is similar to scrimshaw, only not having as delicate workmanship.

I first must collect freshwater mussel shells from the Mississippi, the Rock and Illinois Rivers. I also have some from my local Cedar Creek. Good working size for this project is from three to six inches across.

Next comes the shaping of the shells to either a circle or an oval. This can be done using the diamond trim saw. Turn the shell on edge to cut off the hinge area. Finish shaping on the grinding wheels. The inside of the hinge area can then be smoothed out using a small ball-shaped grinder on the electric drill.

Always work shell wet, wearing a good dust mask in a well-ventilated area. I also use a fan to blow the dust away. Shell dust is very toxic.

I choose for my work prehistoric Indian designs which I find in archaeological publications. With the copier, they can be enlarged or reduced until the design fits the prepared shell blank. The design may be placed on the inside or outside of the shell. I prefer the inside because of the beautiful mother-of-pearl coloring. Cut out the design the same size as the shell, and cut a piece of ordinary carbon paper the same size. You will note that most shells are concave, and your papers are flat. This can be remedied by cutting four or five slits in the papers.

Now you are ready to tape the papers to the shell. Cut four or five strips of transparent tape (1" to 1½" long), and stick them to something where they can be easily reached. Be sure the carbon paper is right side down and center the design correctly over the shell. Push the papers down in the center, holding them tight as you tape the papers to the shell. Now go over the design with a fairly dull lead pencil, starting at the center and working to the outside. When you remove the papers you should have the design on the inside of the shell. You may want to go over the design again with pencil or a fine-tipped marker. The ones marked "photographic marker" do a good job.

Some shells have such a high gloss that the carbon will not stick to the surface. To remedy this I mix corn starch and Elmer's glue with a little water, making a paste to cover the shell surface.

When this dries the carbon will stick a lot better. The coating will also eliminate a lot of dust while drilling. When the engraving is finished, the coating will wash off easily after a few minutes soaking in plain water.

When I started doing shell work, I was cutting the design into the shell with scrimshaw tools. This is a lot of hard work! Then I learned to use my Dremel drill with a flexible shaft and old dental bits. You can probably get these bits from your dentist. He can use each bit only on one patient; then they must be discarded. Remember to wear your mask as you are engraving the design.

Now you are ready to ink in the design, using India ink in whatever color you select. I use an old-fashioned straight pen for this job. They can be obtained from art suppliers in several different sizes. If you accidentally get some ink on the shell outside the groove, it can be scratched off easily without harming the shell surface, after the ink has dried.

Good luck!

From *Midwest Federation Newsletter*, (May 1998)  
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Rt. 1, Box 63, Huntsville, IL 62344

**VIDEOS AND SLIDE PROGRAMS AVAILABLE**

*From the MWF Newsletter*

Individual members of all clubs in the Midwest Federation may borrow video and slide programs from the MWF library for use at schools and other meetings (some are restricted to home use only). If you would like to organize a presentation to your church group, senior center, library, school, etc., contact John Blue for programs. Two new ones will be available later this fall: "Spelunking" by Richard Raber and "The Mineral Deposits in Eastern Iowa/Western Illinois" by Dr. Paul Gavin. John Blue's address is 16155 Shurmer Rd., Strongsville, OH 44136.

**NEW CHEMICAL ELEMENT DISCOVERED**

Anonymous from the internet

The heaviest element known to science was recently discovered by investigators at a major U.S. research university.

The element, tentatively named administratium, has no protons or electrons and thus has an atomic number of 0. However, it does have a single neutron, 75 vice neutrons, and 111 assistant vice neutrons, thus giving it an atomic mass of 312.

These 312 particles are held together by a force that involves the continuous exchange of meson-like particles called morons. They are also surrounded by vast quantities of lepton-like particles called peons.

Since it has no electrons, administratium is inert. However, it can be detected chemically as it impedes every reaction it comes in contact with. According to its discoverers, a minute amount of administratium has caused one reaction to take over four days to complete when it would have normally occurred in less than a second.

Administratium has a normal half-life of approximately three years, at which time it does not decay, but instead undergoes a reorganization in which assistant neutrons and assistant vice neutrons exchange places. Some studies have shown that the atomic mass actually increases after each such reorganization.

Research at other laboratories indicates that while administratium occurs naturally in the atmosphere, it tends to concentrate at certain points such as government agencies, large corporations, and universities. It can usually be found in the newest, best appointed, and best maintained buildings.

Scientists point out that administratium is known to be toxic at any level of concentration, and can easily destroy any otherwise productive reaction when it is allowed to accumulate. Attempts are being made to determine how administratium can be controlled to prevent irreversible damage, but results to date have not been promising.

**YOU SAY FOSSILS ARE USED FOR WHAT?**

By Doris Smith

If someone should ask you, "What are fossils used for?" what would your answer be? Possibly you would mention fossil fuel, such as petroleum or coal, but could you name the many other ways fossils are useful?

Fossils tell us where there were seas in the past and where there was land. They show whether these seas were shallow or deep and the nature of the water. Besides acting as guides in geological chronology, they show changes in the climate and the former distribution of plants and animals and their routes of migration.

Index or guide fossils help to identify strata and to date rocks containing similar fossils. Rings of growth in fossil trees indicate seasonal changes. Fossils show how today's living plants and animals have emerged gradually from those of the geological past by the process of evolution.

Diatoms are used for testing the quality of microscope lenses, for filtering liquids, in the refining of sugar, and in the manufacture of paint and varnish to distribute the oil. Oil geologists make use of foraminifers to help locate possible oil-bearing strata. Phosphate made from fossil bones is used in agriculture.

The pyramids are made from fossiliferous limestone. Some other building stones are coral rocks and coquina limestone, containing large masses of fossil shells.

Radiolarians, as most rockhounds know, give us tripoli powder for polishing. Let us not forget the fossil amber, coral, petrified wood, jet (from fossil coal) and turrítella used for making jewelry.

The ancient Chinese used ground fossil bones as medicine to cure many ills. And, of course, what would we do without the modern-day plastics, which are a byproduct of fossil petroleum?

From *Dinny's Doin's* (Oct., 1991)



## THE AMERICAN FEDERATION

### Code of Ethics

- I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.
- I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.
- I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.
- I will use no firearms or blasting material in collecting areas.
- I will cause no willful damage to property of any kind—fences, signs, buildings, etc.
- I will leave all gates as found.
- I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.
- I will discard no burning material — matches, cigarettes, etc.
- I will fill all excavation holes which may be dangerous to livestock.
- I will not contaminate wells, creeks, or other water supplies.
- I will cause no willful damage to collecting material and will take home only what I can reasonably use.
- I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- I will cooperate with field trip leaders and those in designated authority in all collecting areas.
- I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- I will appreciate and protect our heritage of natural resources.
- I will observe the "Golden Rule," will use "Good Outdoor Manners," and will at all times conduct myself in a manner which will add to the stature and public "image" of rockhounds everywhere.

## JASPER — Born of Fire and Ice

Jasper is in the silica group of minerals. The silica group is divided into crystalline quartz, which includes all varieties occurring in large crystals, cryptocrystalline, which includes all varieties in which submicroscopic crystals form granular to fibrous aggregates, and amorphous, which does not form crystals. The jaspers fall into the cryptocrystalline group along with chalcedony, chert, agate and flint.

The name jasper applies to various forms of opaque to subtranslucent chalcedony of richly colored rock consisting of interlocking crystals of cryptocrystalline quartz too small to see with the naked eye. Mineralogists can discern jasper's structure by the way it diffracts X-rays. The cryptocrystalline structure indicates how the stone came into being. Jasper has various names applied to its sub-varieties.

Jasper is born of fire and ice, the impact of hot lava and cold rock. Most common, the cold source rock is porphyry, a dark igneous rock that contains large and conspicuous crystals in a fine grained ground mass that is, they melt while the other components remain solid. This produces a silica-laden fluid that flows into cracks in the porphyry where it quickly cools and crystallizes. It is the rapid cooling that prevents the growth of large crystals and thus promotes the formation of a jasper. Jasper may also form in sedimentary parent rock, again, with lava as the heating agent.

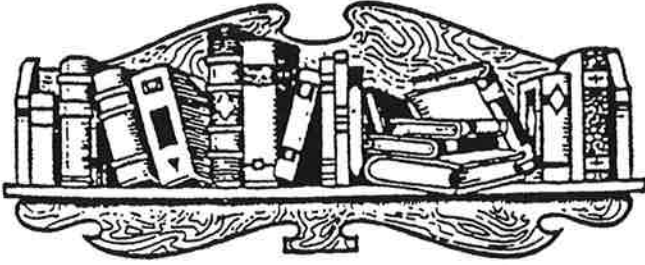
Jasper is frequently found near deposits of iron ore, and often it contains iron compounds and impurities. These impurities usually give a red and brown color to the jasper, but there are also yellow and green jaspers. Red, brown and yellow colors come from different forms of iron oxide.

The mossy green tones come from chlorites (minerals containing magnesium, aluminum and silicone) as well as iron oxides. It is rare if anyone finds a single color jasper. More often the stone displays deep hues in indistinct ribbons. Jasper's suggestive markings contributed to its ancient popularity, but also to its modern downfall. Many people nowadays find the pattern in the rock too garish for their taste.

Jasper has been popular in the Middle East and Europe for over 5,000 years. In ancient Egypt and Rome, craftsmen worked the jasper into magic symbols, secret signs and large polished tablets. The Russian Czar's winter palace in St. Petersburg had a beautiful collection of carved jasper. The maharajahs of India had many beautiful ornaments made from jaspers. Present-day rockhounds still work with the beautiful rock.

It is the cryptocrystalline structure of jasper with its tiny crystals, its density and hardness that enables the craftsmen to work the jasper and get a high polish.

By Donald Barr, Oregon Rockhound, 3/95



### FOR FURTHER READING

Jonathan Bloch of the University of Michigan has announced the discovery of the smallest known mammal. Weighing only about as much as a dollar bill, *Batodonoides vanhouteni* is known from a fossilized jawbone found in a limestone nodule from Wyoming about 53 million years old. A relative of shrews, the tiny critter had teeth only a fraction of a millimeter wide.

*Science News* (Oct. 17, 1998)

Jeannot Trampert and colleagues at Utrecht University have reported observations of shear waves passing through the inner core of the earth—good evidence that the inner core is solid. A solid inner core has been suspected for some time, but evidence of shear waves has been lacking. These waves (generated by earthquakes) can pass through solids but not through liquids.

*Science News* (July 25, 1998)

An analysis of 454 fossil species living in Mongolia 40 million years ago has concluded that a large change in the mammal community was caused by climate change. When global temperatures cooled by about 13°C., open grasslands replaced forests and large rhinolike animals gave way to rodents and rabbits.

*Nature* (July 23, 1998)

Known as the "living fossil," a rare fish called the coelacanth turned up in 1938 after it was supposed to have been extinct for 80 million years. The original population off the South African coast has now been joined by a second one in Indonesia. The discoverer, Mark Erdman of the University of California, Berkeley, was even able to join a coelacanth in the water for a short swim.

*Nature* (Sept. 24, 1998)

MICHIGAN GEOLOGY & GEMCRAFT SOCIETY  
presents its

## 25th ANNUAL ROCKHOUND SEMINAR

### JUNE 19 & 20, 1999

SOUTHWESTERN MICHIGAN COLLEGE  
NILES, MI

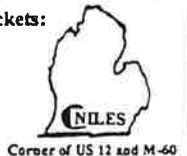
Learn how to facet  .....Learn how to string beads  
into necklaces  .....Learn how to do "wirewrapping"   
.....Learn how to make a gem tree  .....Learn how to make a  
cabochon  .....Learn how to make silver jewelry 

.....AND MUCH, MUCH, MUCH MORE!!!

TICKETS: \$15.00 per day. Advance \$12.00  
For further information/schedule and advance tickets:



Cathy Hodgson  
1360 Roods Lake Road  
Lapeer, MI 48446  
(810) 664-8985 5-9 pm



### SAW BLADE SERVICE

Herb Luckert reports a very pleasant outcome to an originally depressing event. Herb's 20" slab saw blade was recently warped as the result of an accident while sawing bookends. Local machine shops weren't very helpful.

Leo Heynsens suggested that Herb call Star Diamond. When he did so he found that Star Diamond no longer services blades but he was referred by them to Barranca Corp., 18205 S. Broadway, Carson, CA 90248. He wrote a short note asking that the blade be straightened (retensioned) and enclosed a check for \$35. Three weeks later he got his blade back cutting even more smoothly than before the accident. The \$35 includes return shipping charges.