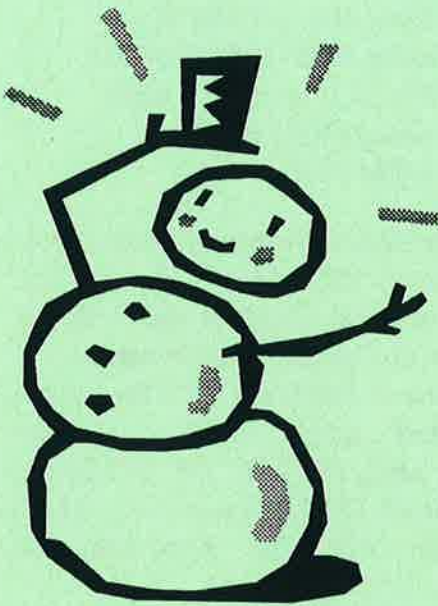


THE ROCKFINDER

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



THE ROCKFINDER

JANUARY, 1999

MICHIANA GEM & MINERAL SOCIETY

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The purpose of the Michiana Gem & Mineral Society is to promote the study and enjoyment of the earth sciences and the lapidary arts, and to share lapidary 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.

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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 (ph. 289-2028). Co-editor, Herb Luckert, 221 Marquette Ave., South Bend, IN 46617 (ph. 282-1354). Reporters, Bob Heinek, Herb Luckert, club members.

Permission is hereby granted to reprint any original *Rockfinder* articles, as long as due recognition is given along with the reprint.

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 _____
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Please send your dues and this form to
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 c/o Margaret Heinek

7091 E. East Park Lane, New Carlisle, IN 46552

Additional names:

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 Birthday _____

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 Birthday _____

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 Birthday _____

Name _____
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PLEASE READ AND SIGN THIS SECTION:

With my signature I hereby release the Michiana Gem and Mineral Society, Inc., and its individual members and the owners of any premises upon which I enter under permit granted to the society, absolutely free of any liability whatsoever, to my person or my property, and further I will respect the equipment and property of the aforesaid owners.

Signed _____ Date _____

THE ROCKFINDER

Newsletter of the Michiana Gem & Mineral Society

Volume 39, Number 1

January, 1999

Meeting: Sunday, January 24, 1999
Doors open at 1:30 p.m.
Meeting starts at 2:00 p.m.
Guests are always welcome.

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

January Hosts: To be announced.

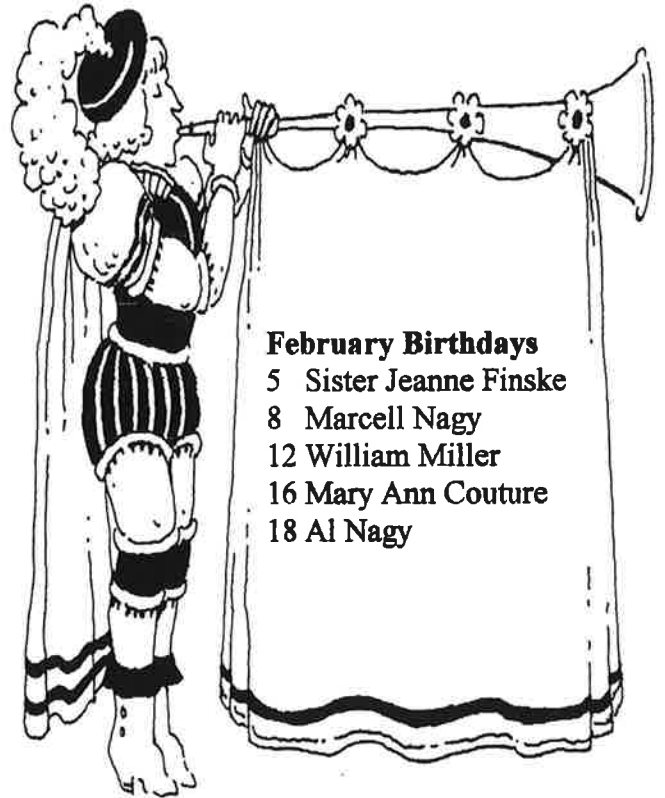
January Program: Bring your pearls
along for show and we'll see a video
presentation on the creation and
use of pearls. Pearls come in many
colors, sizes and shapes.

PAY YOUR DUES RIGHT AWAY IF YOU
HAVEN'T ALREADY.

EARLY DEADLINES: Cutoff for the registration of competitive
exhibits at the Midwest Federation show in April is February
19. Cutoff for other exhibits is March 19. Contact Mark
Peter, 636 Mawyer Dr., Worthington, OH 43085.

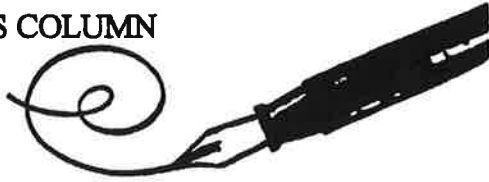
UP AND COMING

- Feb. 26-28--Intergem show, Columbus, OH, Veterans Memorial.
- Mar. 5-7--Greater Cincinnati Show, Sharonville Convention
Center, Sharonville, OH.
- Mar. 6-7--Auction of 1,500 lapidary items, Schoolcraft
College, Livonia, MI.
- Mar. 12-14--Eastern Indiana show, Richmond, IN.
- Mar. 13-14-- Geodeland Show, Western Illinois University,
Macomb, IL.
- Mar. 20-21--Stark Sounty show, Canton Memorial Civic Center,
North Canton, OH.
- Apr. 10-11--Central Ohio Show and Midwest Federation Conven-
tion and show. Veterans Memorial, Columbus, OH.
- Apr. 16-18--Wholesale show to gem trade, Troy (Detroit), MI.
- Apr. 16-18--Gem & mineral show, Mt. Clemens, MI.
- Aug. 8-13--Red Metal Retreat, Houghton, MI.
- Apr. 7--10--Indian Mounds show, Eastbrook Mall, Wyoming, MI.



February Birthdays
5 Sister Jeanne Finske
8 Marcell Nagy
12 William Miller
16 Mary Ann Couture
18 Al Nagy

MARGARET'S COLUMN



Looks like we are having an "old-fashioned winter"—haven't seen one for quite a while. We are not used to so much snow and really cold weather, but guess we will survive.

I sincerely hope everyone had a Happy Holiday. Our son, Don and family, from Georgia were unable to come north for Christmas; this was the first time they missed being here. But with Rob and Judy, Judy's four children and 3 grandchildren, we had a good holiday.

Remember to start saving the egg cartons, plastic rings that come around the soft drink cans, and small and medium-size rocks, fossils and minerals for the *Kiddies' Korner* projects. We will make grab bags for the show, and then fill the egg cartons to start rock collections for the juniors that come to the show. Remember *Science Alive* at the South Bend Library will be Feb. 5th and 6th. The 5th will be for buses of students, and will be a short session, with information about our club, and with displays. The 6th will be from 10 am to 4 p.m., and we will have to decide what we will do for the youngsters. Last year we had a spinning wheel, and the children were able to take rocks home. Will you volunteer for this? Sign up at the January meeting. It's fun, really.

Our program for January will be a video on pearls, how they are grown, color, and how they are sold. If you have cultured or "real" pearls and you can, bring them for display. Pearls come in many colors, sizes and shapes. Ed Miller has some good ideas for programs, and he would like to know what you would like to see or do for programs. I know he will plan some good ones. So plan on coming to see and learn.

If you have not paid your dues, PLEASE SEND THEM SO WE CAN PRINT THE ROSTER BY FEBURARY 1ST. Bob Heinek has agreed to act as treasurer, but if someone would like the job, tell us. Phyllis Luckert, who takes care of the monthly

publicity, is going to be out of town (if they can get past the snow) so she has asked if someone will take care of notifying the TV stations, radio and newspapers. Is anyone willing to take on the job? She is sending me the labels for the letters, and it won't be for more than a couple of months, February and March.

We will see you at the January meeting, if the snow doesn't stop us.

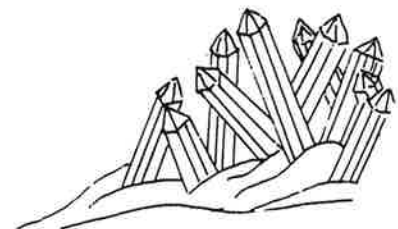
**PLANS ARE UNDER WAY:****FIELD TRIP/FOSSILS/FUN/FELLOWSHIP**

By Kathy Miller, Field Trip Chair

Tentative plans are being made for a three-day field trip in September. On December 27, I spoke with Bonnie Brueske and her son Matt concerning collecting again in Ohio and southern Indiana. According to Matt the collecting is still good and plentiful for fossils. Their main concern was mot. accommodations in the area. Oxford, Ohio, is limited to just a few motels and those are usually booked far in advance.

Bonnie and Matt will try to get back to me before the meeting in January so that I will have a report for members. I have been approached by many members to go back to this area.

If Bonnie and Matt are able to give us a go-ahead, I will start the sign-ups as soon as possible and have an early cutoff date because of the lack of motel space. It would be a great field trip, with bus transportation (*as usual paid for by the club*), great collecting, great fellowship, great times!



(These were served at the October meeting. Here's the recipe, by popular demand.)

PUMPKIN WALNUT COOKIES

By Diane Gram

- | | |
|--------------------------|------------------------------|
| 1/2 cup margarine | 2 1/2 cups flour |
| 1 1/2 cups brown sugar | 3 tsp. baking powder |
| 2 large eggs | 1 1/2 tsp. pumpkin pie spice |
| 1 cup cooked pumpkin | 1/4 tsp. ginger |
| 1 tsp. grated lemon peel | 1 cup chopped walnuts |
| 1 tsp. lemon juice | 1 tsp. salt |
| 1 tsp. vanilla | |

Cream margarine and sugar. Beat in eggs. Stir in pumpkin, vanilla, lemon peel and lemon juice. Sift flour with baking powder, salt and spices. Blend into margarine mixture. Stir in walnuts. Drop by tablespoonfuls onto greased baking sheets. Bake at 375° for 12 to 14 min. Makes about 3 doz. cookies. Frost with any butter cream frosting.

FOSSIL CLEANING TIPS

In most cases, when a fossil is cleaned, the surface is usually left with a dull or chalky look, even if you're very careful. This is caused by the abrasion of the tool against the fossil's surface.

In an effort to make the fossil look better, some collectors use the quick method, and cover their specimens with clear plastic sprays to bring out the details and lessen the scratchy appearance. Specimens treated this way are easy to recognize because every specimen looks as if it is wet or dipped in plastic. The trouble with this method is that it puts an unnatural, glossy appearance on the fossil, as well as the matrix, giving the specimen poor contrast.

In their natural state, fossils are not usually glossy, and professional museum preparators will tell you that making a fossil something it never was, is poor practice. Clear sprays have a tendency to become cloudy over time, and the temptation to spruce up the collection by re-spraying specimens becomes a habit, which only puts more cloudy layers on the specimen. These coatings make photographing fossils difficult; they are very hard to remove and will sometimes render specimens useless for scientific study.

A simple and common sense way to get around these problems is to use an alcohol-soluble, clear shellac. Just mix two parts shellac to eight parts alcohol; the ration can vary slightly to suit personal tastes. This mixture will leave a pleasing, natural matte finish.

When using this method, make sure the fossil is clean of dust. With a small artist's brush, carefully coat only the fossil with the dilute shellac. This will reveal the specimen's actual color and allow the fossil to stand out against the natural matrix, giving excellent contrast. The more attention you give to coating delicate structures, the more beautiful the specimen will be. If you accidentally use too much, or if it runs on the matrix, just dip the brush in alcohol and whisk the coating away. It dries in seconds.

Make no doubt about it, fossil collecting has become very sophisticated in recent years, and collections quickly prepared by obsolete or improper methods are now readily noticed by other collectors. For a good book on fossil preparation, I recommend *The Practical Paleontologist* by Steve Parker and Raymond L. Bernor, printed by Simon & Schuster.

— Maps Digest, 7/9/95, author unknown

**Rockhounds On The Internet . . .
Check 'Em Out!**

- Smithsonian Gem & Mineral Collection -**
<http://galaxy.einet.net/images/gems/gems-icons.htm>
- Bob's Rock Shop -**
<http://www.Rockhounds.com/>
- The Mineral Gallery -**
<http://mineral.galleries.com/>
- Trilobites -**
<http://cc.weber.edu/~czacher/trilo.html>



ORIGIN OF THE WORD "STERLING"

The word "sterling" came from the "Easterlings," which was the name of a band of traders in eastern Germany in the 14th century. These traders came from five free towns where the people made not only their own laws but their own currency. In trading with English merchants, they gave silver coins as payment. The English learned that the coins, which were referred to as the coins of the Easterlings, could be depended upon to contain 925/1000 fine silver. The original designation, Easterlings, was later abbreviated to sterling.

A NEW DINOSAUR DISCOVERY

By Dave Liss

A University of Chicago researcher named Paul Sereno and his team has uncovered a previously unheard of ferocious dinosaur. This new dinosaur's features consisted of foot-long claws, powerful arms, a Tyrannosaurus Rex body design, and a two-foot high sail along its back. The shape of the head resembles that of a crocodile, which was suited for the catching and eating of fish. This dinosaur stood 12 feet high at the hip, was approximately 36 feet in length, and weighed in at about 6 tons. Its lifespan may have been as long as 100 years. With its build and prowess it was able to take down just about any fellow dinosaur. There are about 250 better known species of which some ate plants, some ate meat, but only three ate fish. The first discovery of a fish-eater was the Spinosaurus, it was located in Egypt in 1912; the second discovery was made in Britain in 1986 - the Baryonyx. Now this new discovery! What is it called? The Suchomimus Tenerenis and he was found in the Sahara Desert of Nigeria. A model of this fellow will be on display December 10th at the Chicago Children's Museum at Navy Pier.

Is it related to the crocodile on the evolutionary tree? No, but both evolved with the same skull shape. This is known as convergent evolution, where unrelated species develop similarly.

The excavation area was once a warm primeval forest with lakes and wide rivers. The Suchomimus Tenerenis, by conjecture, died on a riverbank and was later washed into the river. Its bones became fossilized in the river sediment and later became exposed by the erosion forces of the wind. The digging up of these fossil bones became complicated since the bones themselves were broken into as many as 10 pieces. Overall, there were 400 fossil pieces to deal with at this site. This entire process, once the discovery was made, took one week to complete by a five-man team.

At this same site the research team uncovered another type of plant-eating dinosaur that was 50 foot in length (called a Sauropod), crocodiles, turtles and 6-foot long fish. It is believed that this dinosaur was a land mammal with the ability to swim. It sought its prey as it waded in the waters while walking on its rear legs.

Sereno is planning another expedition to this same area but this time to previously unprospected locations.

(Original Source Chicago Tribune 11/13/98 article by William Mullen; Chicago Sun Times 11 /13/198 article by Jim Ritter)

Via Pick and Dop Stick 12/98



THE BIGGEST, THE BEST, AND THE MOST GARGANTUAN

By Benjamin Mark

The largest gold nugget ever found was called the Holterman Nugget. It was found in Australia on October 19, 1872, and weighed 7,560 ounces. That's 472.5 pounds, my friends. I could make a couple of rings out of that, and maybe even a bangle to spare.

The largest silver nugget weighed 2,750 pounds troy. It was discovered in Sonora, Mexico, and was "appropriated" by the Spanish government before 1821. I looked up the word "appropriate" in the dictionary to see if they felt the same about the word as I did. Here are some of the definitions: steal, filch, lift, nab, pilfer, pillage, swipe and thief.

The largest pearl, for you pearl-lovers, weighs 14 pounds, 1 ounce. It is 9 1/2 inches in diameter. It was found in Palawan, Philippines, on May 7, 1934, inside the shell of a giant clam. It presently resides in a San Francisco bank vault and was worth \$4,080,000 as of July, 1971. It is called the Pearl of Lao-tze.

Opals, anyone? How about one found in Andamooka, South Australia, in January, 1970? It weighs 34,215 carats and was unearthed by a bulldozer.

There is a topaz out there that weighs 21,327 carats. Light blue in color, with 221 facets, it's called the Brazilian Princess. It was exhibited at the Smithsonian in 1978 and was then worth \$1,066,350.

Want something from the good old U.S. of A.? How about a turquoise weighing 218 pounds, found in Riverside County, California, on January 17, 1975?

Jade? Well, how about a boulder-sized piece found in British Columbia in 1977? It weighs 63,307 pounds.

Okay. By a show of hands, how many of you want to know about marble? I know, I know. What has marble got to do with jewelry? Well, fact is, I'm thinking of making up some marble jewelry next year, and that justifies this little bit of info. Largest single slab ever found weighed 100.8 tons. It was quarried in Yule, Colorado, and a piece of this slab was cut for the coping stone on the Tomb of the Unknown Soldier in Arlington National Cemetery in Virginia.

The largest sapphire weighed 2,302 carats. It was found in Australia circa 1935, and was carved into the shape of the head of President Abraham Lincoln. Another black star sapphire weighing 2,097 carats was carved into a bust of General Dwight D. Eisenhower, circa 1954.

Now, the largest of gemstones ever found in recorded history was a 520,000-carat aquamarine found in Brazil in 1910. It yielded 200,000 carats of gem-quality cut stones.

The rarest? There are only four of these stones in the world. It is a pale mauve gem known as taaffeite. They were first discovered in Dublin, and the largest one weighs 0.84 carats.

The Slate (Mar., 1997)

LEAVERITE - WHAT TO DO WITH IT

New rockhounds soon learn what Leaverite is. It's any unidentified mineral which, when you pick it up and ask a veteran collector whether you should keep it, the reply is, "No, leaverite there."

Of course, some mysterious force often prompts collectors to take leaverite home anyway, and the question then becomes what to do with it. Below are a number of suggestions attributed to *Chip & Lick*, the Roadrunner (who or whatever that is), via *RRC Newsletter*, 9/98, reprinted in the December 1989 *Paleo Newsletter*, Austin Paleontology Society

NINE WAYS TO GET RID OF LEAVERITES

1. Fix the chuckholes in your driveway.
2. Throw them at bill collectors or door-to-door salesmen.
3. Take them to club displays and leave them.
4. Donate them to grab bags.
5. Slip them into your competitor's case when nobody is looking.
6. Throw them over the fence into your neighbor's garden.
7. Affix a large label, "This material insured by Pinkerton's," and leave them unwatched at the shopping mall.
8. Fill up your car trunk to get you through the winter ice.
9. Best of all, don't take them home in the first place!

LEARN TO LOVE A COPPER MINE OR CURSE THE DARK

By Ron Karvinen, a retired exploration geologist and mechanical engineer.

During the dinner hour several weeks ago, the answered doorbell presented a young lady bearing a petition. Part of this writ sought support to halt a proposed mining operation south of Tucson. The idea expressed was that the mineral extraction industry is a curse to the earth's pristine and fragile state.

As I gently ushered her out of my presence, I turned on an outside light to make her exit safe and stumble-free. I asked her to curse the copper industry for providing the wire that carried the electricity that turned on the light the instant I flipped the switch. She remarked, "I never thought of it that way."

This flogged my thought process and the more I thought about it the more I cursed. Were I a poet, the following could be titled, "Ode to the Electric Light Switch."

Curse the Belgian chemist L. H. Bakeland for finding the right mixture of formaldehyde and phenol that forms the nonconducting toggle and wallplate, thus enabling one to flick the switch without fear of electric shock.

Curse the copper mines. Copper is the metal that has the properties that allow the most practical transmission of electric current. Most precious metals are more efficient conductors, but are too costly for general use. Note that the freeway cloverleafs and sewage treatment plants just in the state of California consume more acreage than all the copper mines in the world.

Curse the gold and silver mines. Gold and silver plate and solder are irreplaceable in the connectors of all electronic devices. Curse the molybdenum, vanadium and chromium mines, which produce iron alloys used to make stainless steel.

Curse the tungsten mines, most of which are underground. Tungsten is the metal that has so much resistance to electric current that it gets white hot when the switch is flipped. The purer the tungsten, the longer the life of the filament.

In a nonsacrilegious way, curse God for the

capricious way He put into place commercially viable deposits of aforementioned metals and minerals. In most cases, even when an ore body is mined out, the real reason for its being there remains a mystery. I know because I misspent more than 40 years studying "ore genesis." If I could predict the location of a viable ore body, who do you think would own every one?

Curse the economists and professors for not knowing or teaching that, for every dollar's worth of a substance removed from the ground, be it carrots or copper, at least \$5 worth of wealth is created. The light switch does not materialize from thin air. I would be interested to know how many people it took to put that light switch into its functioning position.

Curse the taxes the mines pay to local school districts. These schools do not have to operate under fiscal restraints.

Curse the axiom of "There's no such thing as a free lunch." If you're going to dig a hole, you're going to have a dirt pile. If you want to enjoy the benefits of electricity, accept that copper must be mined. Also, mine managers know the cost of moving materials, and the ones I know haven't moved more than necessary.

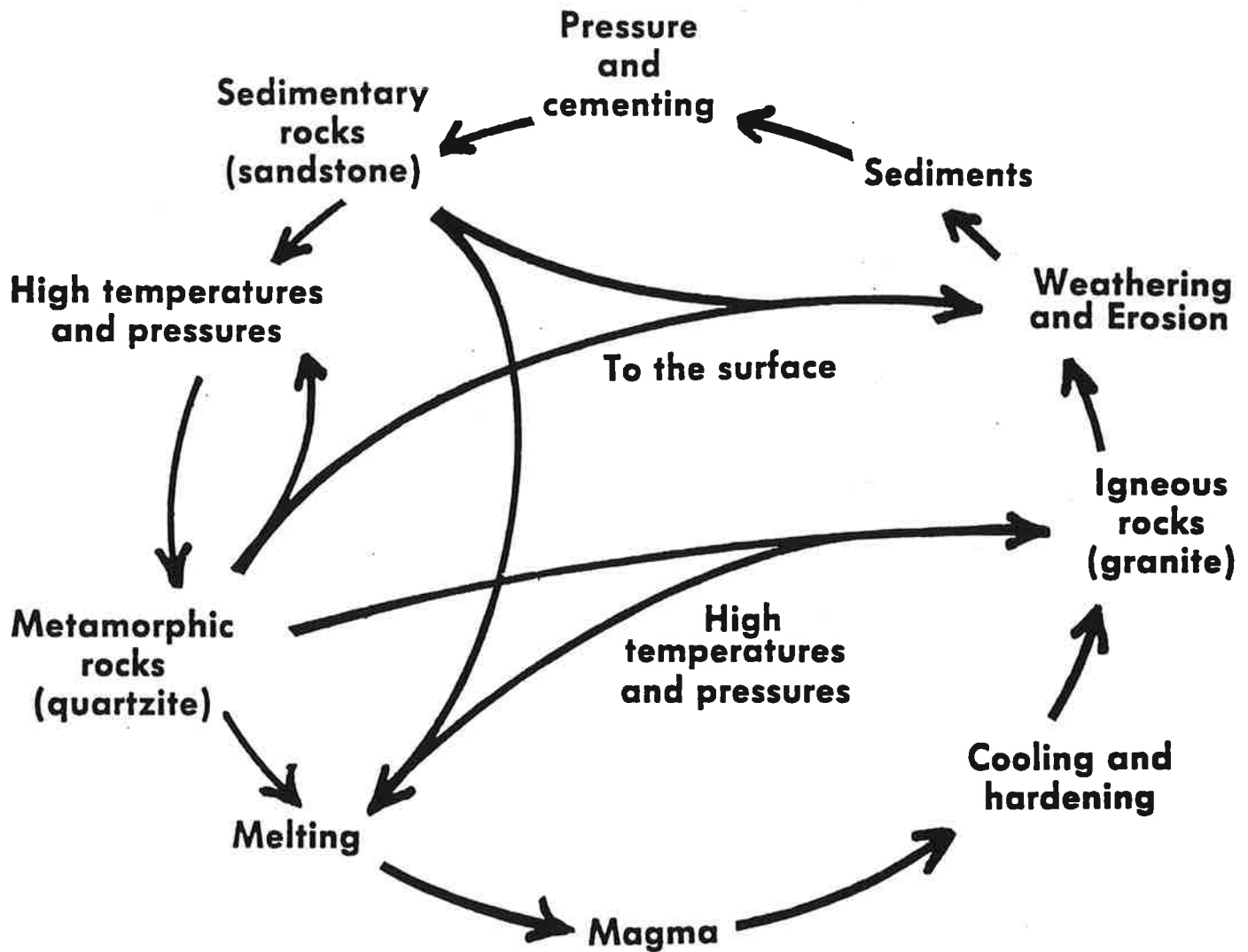
Curse my perceptions. Even the smallest prospect pit to me is a monument to a courageous man, trying in his own way to better his lot, to find wealth and independence. Even with a superb academic background and years of experience, I have to marvel at the powers of observation of these prospectors. The Mining Law of 1872 allows them to claim any mineral discovery made in the public domain, just as a writer can claim a copyright, just as an inventor can claim a patent. Is this American, or what? Think about it!

Excerpted from the April 15, 1997, *Tucson Citizen*, reprinted in *THE DRIFT* (Nov., 1997)



THE ROCK CYCLE

The diagram of the rock cycle shown below illustrates the many ways that rocks are changed. Igneous rocks beneath or on the earth's surface are constantly subjected to physical and chemical conditions that change them. As a result of these changes, sedimentary rocks, metamorphic rocks, or new igneous rocks are formed. The continuous changing of rocks from one type to another is called the rock cycle.



A Review

Ohio Geo Survey Publishes New *Fossils Of Ohio*

By Cecilia Duluk

Almost anyone who collects fossils is familiar with the Ohio Geological Survey's *Bulletin 54: Ohio Fossils* (published in 1955 and reprinted several times) with its silver outline of a *Phacops* trilobite. It got collectors familiar with simple identification keys which worked on the process of elimination. The Survey's just-published "update" *Bulletin 70: Fossils Of Ohio* keeps that aid, but is much more than an update — in fact, it is a condensed paleontological encyclopedia that covers every kind of fossil remains known (from the Ohio viewpoint, at least).

Its 577 pages begin with an introduction on the nature of fossils, collecting fossils, and the identification of fossil life forms through the use of its Ohio-related "keys," followed by a short "overview" which gives a simplified explanation of some terms used in each of the major groups of fossil organisms (example: what the labrum is on a trilobite). Except for a good explanation of how to do an "acetate peel," the section on "Preparation Techniques" is old hat to most collectors, but Chapter 3 on "Ohio's Surface Rocks and Sediments" is better and more concise than many earlier publications.

However, it is best in the chapters dedicated to separate phyla — from the simplest sponges through the fossil vertebrates (the illustrations being from Ohio, it naturally is most complete in the Paleozoic fishes, Permian amphibians and Pleistocene mammals [so that's what a peccary looked like!]) to all kinds of plants. It finishes with "Ichnofossils," showing many familiar tracks, trails, burrows and borings which collectors always thought were fossil life but could never pin down.

A few of these *Fossils Of Ohio* chapters are authored by some of the most notable experts in paleontology, including J. Keith Rigby of Utah's Brigham Young University (the sponge expert) and Ralph Taggart of Michigan State on plants, with Stig Bergstrom of Ohio State doing the "oddballs" — yes, there are entire (although short) chapters on graptolites, conularids, and tentaculitoids. Dr. Bergstrom's approach on the strange "Incertae Sedis" [which is how the old *Index Fossils of North America* referred to them] remains we know as conularids is simply to create a new phylum, CONULARIIDA [the double "i" is not a misprint!]. However, he does not recognize the Class Cricoconarida used by Drs. Fisher (1962) and Kesling (1975) and instead leaves them unclassified (the illustrations of Ohio specimens are great, though).

The color plates of "Scenes of Paleozoic and Pleistocene Life" taken from dioramas at the Carnegie Museum that

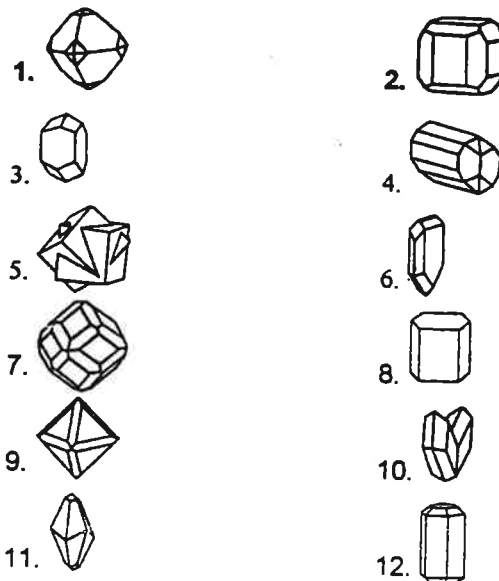
introduce the book are pretty but superfluous, and the *Isotelus* inside is magnificent.

Only one criticism — the cover, which shows the real skull of the Devonian armored fish *Dunkleosteus*, will undoubtedly soon get tattered (it's soft and thin) from lots of use. Still, for \$18.00 plus \$3.00 postage, it's a steal [you can add \$2.00 for two little brass *Isotelus* pins for the same amount of postage].

Order from: Division of Geological Survey, Ohio, Department of Natural Resources, 4383 Fountain Square Drive, Columbus, OH 43224-1362. Make checks payable to the Division of Geological Survey.

The ROCKPILE June, 1997

CAN YOU IDENTIFY THESE CRYSTALS? Try your skill below.



ANSWERS: 1. Silver, 2. Pyrite, 3. Zircon, 4. Epidote, 5. Fluorite, 6. Hemimorphite, 7. Garnet, 8. Beryl, 9. Diamond, 10. Gypsum, 11. Calcite, 12. Apatite.
From AFMS Newsletter (Sept., 1998)