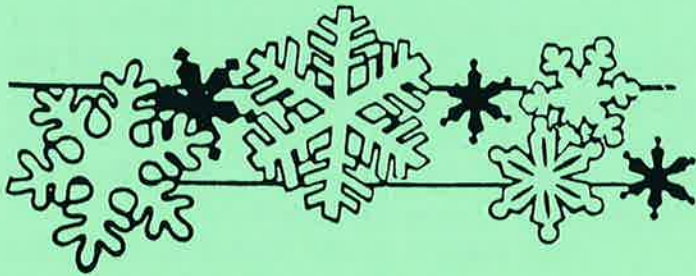


THE ROCKFINDER

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

HAPPY HOLIDAYS



THE ROCKFINDER

DECEMBER, 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.

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

Please indicate areas of special interest.

General Geology___ Beads___
 Gems & Minerals___ Fossils___
 Cabochons___ Field Trips___
 Faceting___ Crystals___
 Carving___ Micromounts___
 Other_____ Jewelry Making___

Name_____

Street_____

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

Additional names:

Name_____

Birthday_____

Name_____

Birthday_____

Name_____

Birthday_____

Name_____

Birthday_____

Date of Wedding Anniversary _____

Phone_____

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

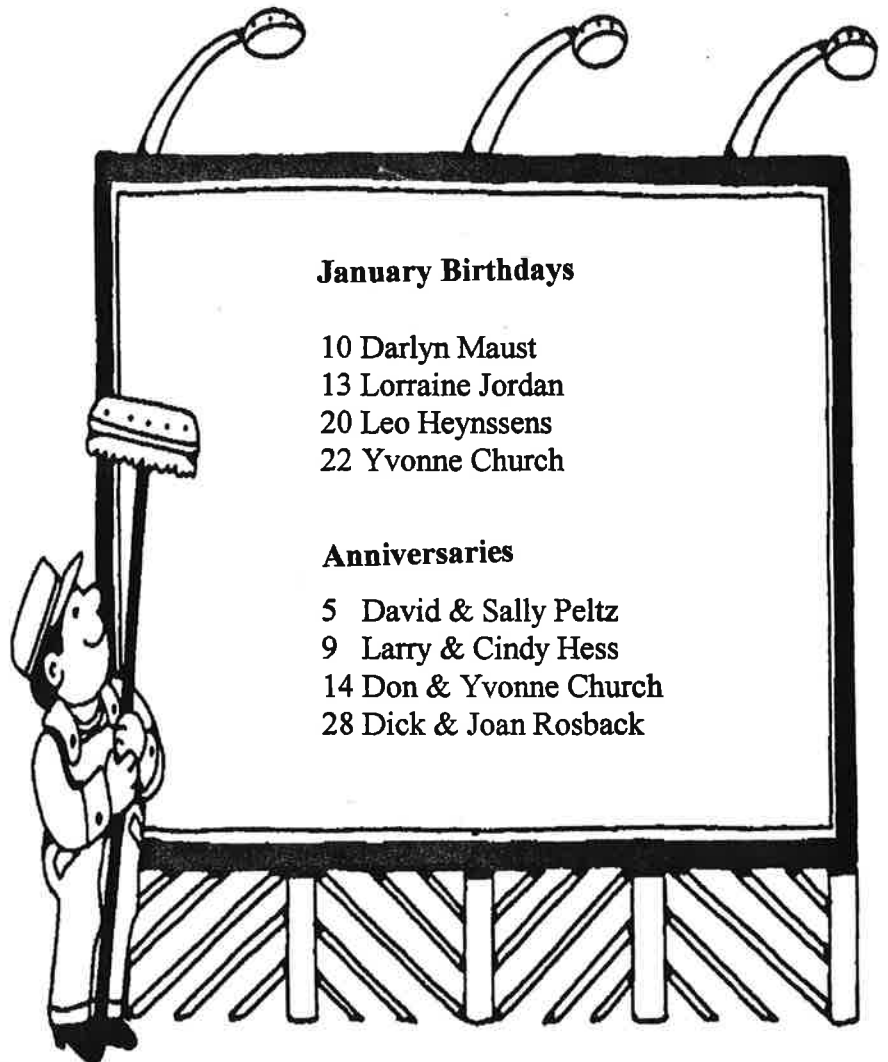
Newsletter of the Michiana Gem & Mineral Society

Volume 39, Number 10

December, 1999

Meeting: There is no regular meeting this month. The Christmas party was the meeting. Our next regular meeting will be January 23.

Dues: It's time to pay your yearly dues. You can pay Bob Heinek by check before December 31.



NEW CLUB OFFICERS

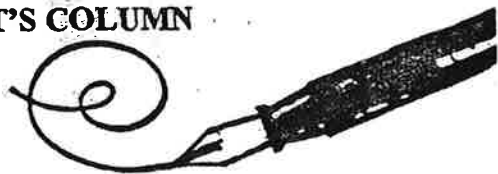
As voted on at the November meeting, the officers for the coming year will be:

Margaret Heinek, president
Don Church, vice-president
Bob Heinek, treasurer
Gladys Pacholke, secretary
Mike Slattery, liaison

We express our thanks to the officers from 1999 (who are many of the same people) and look forward to the new year as the Michiana Gem & Mineral Society enters the third millennium.



MARGARET'S COLUMN



SEASONS GREETINGS.

Bob and I would like to wish all members and friends SEASONS GREETINGS and sincerely wish all a HAPPY, HEALTHY NEW YEAR.

I was just listening to the TV and they "promise really cold weather" for the next few days. We have had such wonderful weather this fall and early winter, we are spoiled. So keep warm and enjoy your holiday. Our daughter-in-law and granddaughters from Georgia will be with us Christmas Day, and it will seem sad not to have our son here. 1999 was a bad year for them and for Bob and me.

The society had a very nice Christmas party, and we missed many of our members. There are so many things going on at this time of year, that one cannot do all of them. Emily Johnson did a beautiful job of table decorations, as did Bob and Kathy on the tree. Sisters Georgia and Jean, Molly Elwell and others did a nice job on the other areas. So if you could not be there, you missed a wonderful time. Bob and I were not able to help with the preparations, as Bob was limping and I had some surgery on my foot, so between us we had one good pair of legs. At least I had my right foot so I could drive the car.

Our November meeting was a good one! We had a very good turnout for The Meteor Man's program. Al Mitterling gave a very interesting program, and I am sure all who attended enjoyed it very much. Al decided to become a member of the society, so welcome, Al. One of our new members brought two large meteors he had gotten from (I think) the Arabian desert. They were very large, very heavy and interesting.

Don Church, our new vice-president, will need some ideas for programs this coming year, so get in touch with him and either suggest a program or volunteer to give one.

Since we do not have a December meeting (except the party), we will see you in January, so keep well and warm until we see you on January 23, 2000.

Get used to dating your checks 2000 and not 1999. It is going to seem funny to date them that way.

Several of our members have informed me they are going west, rock hunting! I know it is because they want to get away from the weather, but they will be missed. Think of us here, and bring back some good specimens.

Oh yes, Herb and Phyllis Luckert gave a specimen to be put in the museum in Oxford, Ohio. The specimen will be given as a donation from the Michiana Gem and Mineral Society. We sincerely hope it is something the museum can use.

In November, the members voted to send donations to the Homeless Shelter, St. Vincent De Paul, the Battered Women's Shelter and Salvation Army as our Christmas gifts. This was done, and so far we have received only one "thank you," and that was from the Women's Shelter.

Again, have a happy holiday season, enjoy your New Year's celebration and be careful on the roads. See you in January.

QUARRY INFORMATION FOR FIELD TRIPS

StoneCo Quarry near Fort Wayne welcomes collectors on Saturday mornings while they do machinery maintenance and aren't actively mining. The quarry is open from 7 to noon. Call ahead of time (219-747-5011) to make sure about the schedule.

This is a limestone quarry with typical fossils, but they are usually hard to get out of the matrix intact. Still, some nice specimens can be found after a lot of looking. Fluorite and calcite crystals can also be found, especially if you get into material that has been blasted from high on the quarry walls. Bring protective headwear and eye protection if you plan on using your rock hammer. You can also just scrounge the piles of broken pieces. After signing a waiver, you will be allowed to go into the quarry for collecting. Stop at the office when you arrive.

Directions: take Highway 30 toward Ft. Wayne, then go south on Interstate 69 when you get close to Fort Wayne. Get off at exit 99, Lower Huntington Road, and head east exactly 2 miles. The entrance to the quarry is on the left.

MINUTES OF THE NOVEMBER 28 MEETING

The meeting was called to order by President Margaret Heinek at 2:00 pm. Present were 29 adults, 2 juniors and 2 guests. Refreshments were provided by Tom Noe and the club.

The minutes of last month's meeting were amended to read that the Peltzes vacationed in Vermont, not in Ohio, and were accepted as amended.

Tom Noe reported that he will soon be sending off copies of the *Rockfinder* to the Midwest Federation contest for rock club bulletins. Winners will be announced at the convention in 2000.

Margaret explained that our insurance payment this year with the American Federation's program is quite a bit higher than in the past. We are now required to pay for members who are out of town and never attend field trips. The club voted unanimously to pay the higher amount.

We have been invited to take part in the Science Alive program at the St. Joseph County Public Library again next year, on February 4. This is an enjoyable event which introduces children to many interesting fields of study, and the club voted unanimously to participate again in 2000.

After discussion, the club voted to donate \$100 to Our Redeemer Lutheran Church in appreciation for our use of their facilities for our meetings. A further donation may be made next year. The club also voted to give Christmas donations of \$50 each to the Center for the Homeless, the Battered Women's Shelter, St. Vincent De Paul Society and the Salvation Army.

Bob Heinek read an abbreviated treasurer's report and it will be filed for audit. Margaret went over the usual instructions for the upcoming Christmas party: everyone bring a dish to pass, and the club will provide the meat (chicken). There will be a gift exchange of some rock-related item in the range of \$4 to \$5. Indicate whether your gift is specifically intended for a man, woman or child. Kathy Miller and Emily Johnson will do the decorating at the church Saturday, December 4; the party and lunch start Sunday at 1 pm.

Displays by members covered two tables, with a very interesting mix of items. Guest Steve Pickering displayed a large rock found some years ago on a relative's farm just off Bittersweet Road. Two very

regular depressions like drilled holes were on one surface, and everyone seemed to think that these were made by Indians, perhaps for grinding pigments.

Tom Noe brought in some fossils from StoneCo Quarry near Fort Wayne: gastropods, crinoids, etc., plus some calcite crystals (fluorite crystals were also found). Several members asked for directions to the quarry; that information is in this issue of the *Rockfinder*.

Bill Nelson and Bill junior showed off some specimens of fire agate, malachite and other lapidary materials which they purchased at a bargain at a recent auction. Nice going!

Sam Shapiro brought in some pieces of slate which had been used for the roof of his house. He explained the process of formation of slate and offered samples for members to take home.

The hospitality list for 2000 was passed around for members to sign up on.

Since Phyllis Luckert will be out of town for a few months, Margaret asked for a volunteer to take over the duties of publicity chair during that time. Sam Shapiro volunteered.

Refreshments were served before the program, which was an excellent presentation by Al Mitterling of Warsaw on meteorites. In particular, he presented the background and reasons for the identification of some meteorites as being from the planet Mars. He brought an extensive collection of meteorites, either complete or sliced, from falls all over the world. Steve Pickering also brought in several very large meteorites from his collection. (These were heavy!)

The November meeting is the occasion when we elect club officers for the coming year. David Peltz acted as chair for the election, in the absence of Vice-President Ed Miller. Nominations were accepted for a new slate: Margaret Heinek for president, Don Church for vice-president, Gladys Pacholke for secretary, Bob Heinek for treasurer and Mike Slattery for liaison. After nominations closed, Herb Luckert made a motion to accept the slate as presented, and Kathy Miller seconded the motion. The motion passed unanimously.

Many thanks to the officers who have served us the past year, and warm wishes to the new officers (well, most of them aren't new) who will fill these posts in 2000. Congratulations!

Gladys Pacholke, Secretary

ALAA REPORT

By Tom Noe

The club, which is a member of the American Lands Access Association, has received its latest newsletter, so here is a summary of some of the most important information. Last year, at the request of Tom Daschle (D-SD) and Tim Johnson (D-SD), the Secretary of the Interior was asked to report on the need for a unified federal policy on the collection, storage and preservation of fossils. Public access to fossils on public land (over one-quarter of the land area of the US) has long been an important issue to Johnson, who cosponsored the Fossil Preservation Act of 1996, a proposed law which was written by rockhounds and would have preserved public collecting rights. (That bill never reached the floor for a vote.) The Secretary of the Interior has presented a draft report, but it does not recognize amateur collecting rights or even acknowledge the immense contributions of amateurs to our knowledge of fossils. Rather, the draft report expands federal control of all aspects of fossil collecting. For example, all vertebrate fossils found on public land would be the property of the federal government in perpetuity (every fossil fish, every fossil horse, every fossil bone). The draft report does allow the possibility of collecting invertebrate fossils "for recreational and educational values," but this would be at the discretion of the land managers, not a public right, as it has been in the past.

The newsletter also details a variety of measures by which the federal government is working to change large tracts of multiple-use public land into wilderness areas. These are parcels of (usually) tens or hundreds of thousands of acres which are currently open for all sorts of activities (birding, rockhounding, cross-country skiing, mineral collecting, etc.), but which will be declared wilderness, with the removal of nearly all roads. The federal government is also planning to spend \$900 million per year, permanently, to buy private land to add to federal land holdings. This would remove from the tax rolls many millions of acres in rural counties which already are short on revenue.

The federal land management agencies are sponsoring a policy on public lands of declaring all

roads closed unless they are specifically posted as being open.

BLM land managers in Idaho have declared all mining sites in the state as closed to human entry. This policy is also being suggested for the whole country (no mineral collecting on mine dumps).

If you would like to write your congressional representatives about any of these measures, more specific information is available from the ALAA newsletter.

THE NIGHT BEFORE TERTIARY

by Stew Spezzano, from the Dinosaur Forum on Compuserve

'Twas the night before Tertiary and all through the crater,

Not a creature was stirring, not even a gator...

Their carcasses were flung in the wind without care;
Making their species exceedingly rare.

Then from the earth there arose such a clatter...

As earthquakes and volcanos spewed out much matter.

Living in darkness, what should disappear...

The plankton, the plants, what else is not clear!

Out T rex, out pterosaurs, ceratopsians, and raptors,
Comet-killed ammonites and all of their captors.

Many small mammals burrowed to bed,
While fire and brimstone roared overhead.

Birds flew away to avoid the hot blast...

Going like hell until it had past.

Then as the snow and ice hit the ground...

The temperature dropped as things turned around.

Mammals came out of their holes with glee,

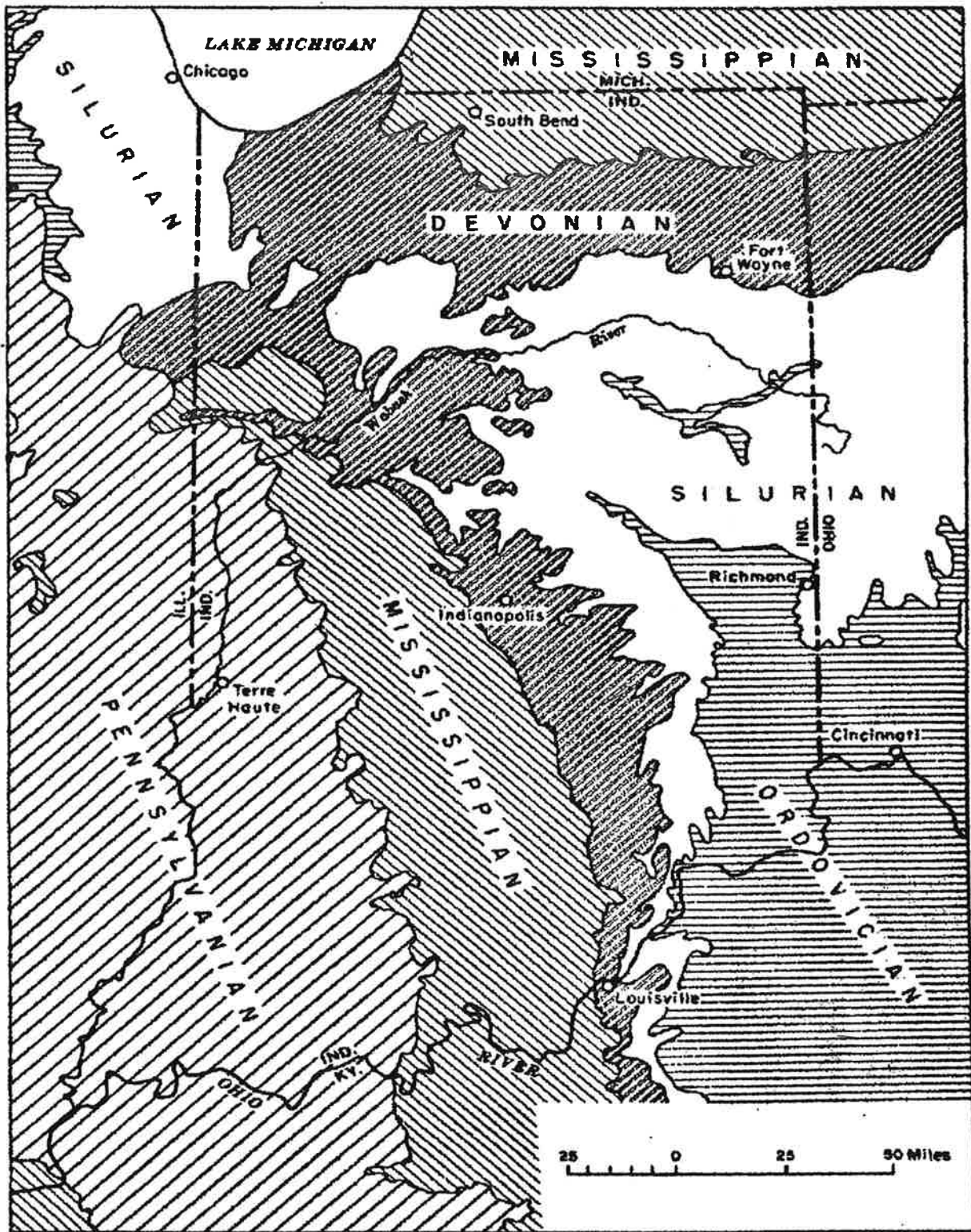
To eat bugs and berries, and of course just to pee.

After a time the sun showed some light;

Evolution kicked in with all of its might.

The earth had survived a terrible fright.

Merry Christmas for some; for dinos, GOOD NIGHT!



Generalized geologic map of Indiana and parts of adjoining states. Part of geology modified from Stose, 1932, Patton, 1956 and Illinois State Geological Survey, 1961. These are bedrock formations. Much of northern Indiana is covered by glacial debris, and bedrock formations are not at the surface.

SPELEOTHEMS

by Karl Estes

A speleothem has always sounded to me like the name of a tiny fish or some other endangered species that is halting road construction or pipe-laying somewhere. Actually, the term applies to general cave formations and their decorations. It includes stalactites, stalagmites, helictites, "draperies," "pearls," "soda-straws" and other similar oddities.

Cave formations are created from slowly dripping water and/or condensation carrying infinitesimal amounts of a mineral. As the water drips or condensation occurs, the mineral is deposited and "grows" into a speleothem. This is repeated again and again until the speleothem is created. Such a process usually takes hundreds of thousands of years, depending upon the volume of water flowing or the degree of humidity and consequent condensation. Speleothems have been found growing over caveman art in Niaux Cave in Ariège, France, that indicated that the growth of the dated speleothem was less than 14,000 years.

Speleothems are usually composed of calcium carbonates but may be composed of other carbonates containing copper, manganese and/or other elements. Copper carbonates such as malachite and azurite form beautiful green or blue stalactites at Bisbee, Arizona. The unusual red stalactites from Argentina are rhodocrosite, the manganese carbonate. Other minerals encountered in caverns are quartz (rare) and selenite, a variety of gypsum. Selenite forms "rams horn" curved crystals while other selenite crystals form as long, slender, sharp, colorless individuals.

Most of the speleothems are slender, round and tapered, e.g., stalactites and stalagmites, while others assume a coralloidal form. The coralloidal habit is evidenced by branching growth culminating in bulbous or cauliflower-like terminations. However, many different crystal morphologies may also be found. Aragonite may exhibit druses and long, slender, sharp crystals, and calcite may form scalenohedrons and blocky rhombohedrons. The latter crystal may sometimes be found residing on the coralloidal growth.

Although not a defined crystal form, helictites grow and branch in all directions, seemingly defying

gravity. They are one of the true oddities of the speleothem family.

When in a cave, remember only to look and admire . . . don't ever touch and never break!

SCFMS Newsletter (Jan.-Feb., 1999)

PAY YOUR DUES BEFORE DECEMBER 31

Check the inside cover for the amount you should pay for your 2000 dues. There are several categories. Please send a check to Bob Heinek for the proper amount. We will be making up the club roster in January, so it's important to pay before December 31.

**NEW WEBSITES**

You may already be familiar with E-bay, the online auction company, which sells jewelry, specimens, rough and supplies to the highest bidder (ebay.com). Now there's another auction site for lapidary materials: auctionwinner.com. This site is specifically set up for rockhounds, so the categories are a little easier to use than E-bay's.

Are you crazy for trilobites? Check out www.ualberta.ca/~kbrett/Trilobites.html. Grad student Kevin Brett is at the University of Alberta and a trilobite fanatic. At his site you'll find taxonomy, bibliography, tips on buying fossils, links to museums, journals, etc., even a source for chocolate trilobites.

Not new, but great for agate lovers, is Roger Pabian's site at the University of Nebraska: <http://csd.unl.edu.csd/programs/agates/framegem.html>. Lots of information, a list of agate names and mar images.

Of course, there's still Bob's Rock Shop, the site at rockhounds.com, with its extensive chat groups, articles and links.

TUMBLING PREPOLISH WITH LIQUID SOAP

Craig McGregor said in Lapidary Digest Issue #222, MSG 6 that liquid soap made a fine tumbling prepolish. I wrote to him about concentration and he replied: "Just use it as it comes from the bottle: remember, it is the stuff that is used for washing clothes in automatic washing machines. About the equivalent of 1/4 to 1/2 cup of dry powder."

I tried the idea and it knocked my socks off! I was going on vacation for two weeks so I filled a tumbler drum (75%) with cull stones, poured in liquid soap to nearly cover and "let it run." The brand of soap was "ALL Laundry Detergent," a gloppy, slimy fluid. Sixteen days later I found that EVERY stone was polished or semi-polished! The raw edges showed very slight rounding. The fluid had a dense haze but no sediment.

The cull was from a hodge-podge jar of mixed scrap waiting to be sorted and tumbled. I added some preforms and stones from a jar of "won't take a polish" rejects.

Each item now exhibits at least a soft reflection and a few (agatey) pieces show a high wet polish. There are pieces of flint where you can see a reflected light bulb, a little soft but an excellent prepolish. I have a piece of basalt with just as good a prepolish (didn't know whether basalt would take a polish). There's some nice sparkling aventurine.

So what's happening here? I checked the Lapidary Digest for previous references and found just a few. Anyone interested can browse these in the back issues on the LD web page: LD Issue #70, MSG 7; LD Issue #109, MSG 2; LD Issue #110, MSG 9; LD Issue #110, MSG 7; LD Issue #110, MSG 10; LD Issue #147, MSG 13; LD Issue #152, MSG 10; LD Issue #182, MSG 3; LD Issue #199, MSG 8; LD Issue #200, MSG 14; LD Issue #222, MSG 6.

I assume the polishing is due to simple rock-to-rock abrasion in the high viscosity environment. To check an alternate idea, I made up a gum solution which has about the same physical properties as the detergent. I am now running a barrel of this against another barrel of the ALL detergent. Same mix of

rock in each. I'll let this run a couple of weeks or so.

For those interested in the techie side, the experimental gum solution is 12% (wt.) medium viscosity, partially acetylated, polyvinyl alcohol with a smidgen of preservative. I think gum acacia (arabic) would be another bodying agent which might work. Corn starch would probably be too soft. There are a "ton" of possible agents if rheology is all that matters, including (maybe) waterglass.

I get so tired of changing grit, keeping any from washing down the drain and scrubbing stones before moving to finer grades. Silicon carbide grit isn't that cheap. I see no reason why the "used" detergent has to be discarded. I'd sure like to hear from other members who have tried this idea for good or bad.

Wonders never cease.

George Butts

<gtbutts@infinet.com>

(The Lapidary Digest is a website with the address www.lapidarydigest.com.)



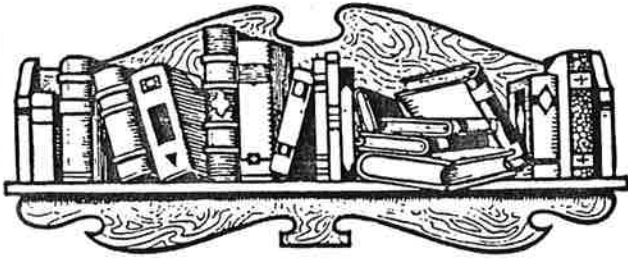
HOW TO PAN FOR GOLD

(read slowly and carefully)

1. From a stream bank, locate a gravel bar.
2. Enter stream to search for black sand in bar.
3. Regain footing, wade out, dry face, empty shoes.
4. Walk downstream and recover pan.
5. Repeat 1-4 until black sand is found.
6. Place sand in pan and dip in stream to add water.
7. Put more sand in pan and dip water into pan with hand.
8. While swirling pan, pour water out.
9. Get more sand and water.
10. Inspect pan bottom for gold. If present, place in medicine vial; if not, repeat 1-10 until gold is seen.
11. Repeat steps 1-10, 10,000 times for each ounce of gold.

(Got it?)

from *SMS Matrix via Ghost Sheet* (Apr., 1990)



FOR FURTHER READING....

Read all about Nefertiti's cosmetics: malachite for green eyeliner, galena for black, mixed with calcium carbonate for grey. Add goose fat and apply.

Discover (Sept., 1999)

Remember hearing that the glass in medieval cathedrals is narrower at the top than the bottom, because glass is only semisolid and eventually flows like melting ice? Well, it turns out it isn't so. It would take over 10,000,000 years for a glass pane to flow enough to be 5% thicker at the bottom.

Discover (Oct., 1999)

An Indiana geologist has reluctantly admitted that fossil footprints do not seem to be much help in identifying the critters that made them. James Farlow of Indiana University-Purdue University, Fort Wayne has applied statistical techniques to footprints made nowadays by emus and big bustards, and found that the prints can't be used to tell the birds apart. Likewise, he says a dinosaur print might have been made by the adult of one species or the young of another species--who knows?

New Scientist (Sept. 25, 1999)

Taiwan's nationwide network of earthquake sensors has given scientists a mountain of data to consider after the recent earthquake. "It's probably the best data set ever collected for an earthquake," a seismologist says. By contrast, rumblings in the U.S. are recorded spottily. During the Loma Prieta earthquake in San Francisco 10 years ago, no sensors were deployed in the soft-sediment areas which sustained the most damage.

Science News (Oct., 1999)

Are museums safe places to display fossils? Apparently not. Smithsonian curators are taking a triceratops off display because of damage caused by humidity (from museum-goers' breathing) and vibrations (the metal mounting rods transmit vibrations from feet and outdoor traffic). The triceratops will be replaced by a cast, with the skull nearby in a sealed case. A stegosaurus and mammoth skeleton also show similar damage.

New Scientist (Oct. 23, 1999)

A 9,300-year-old human skeleton found in the state of Washington is closely linked to Polynesians and the Ainu of Japan, say investigators, and not to modern native Americans. Native Americans had claimed the right to rebury the bones because they said the person was an ancestor of modern tribes.

New Scientist (Oct. 23, 1999)

