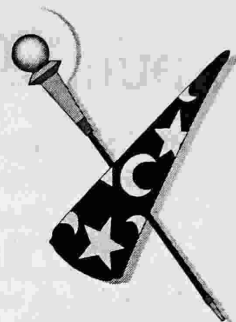
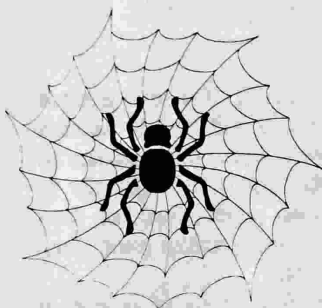


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ROCKHOUND NEWS

OCTOBER 1999

**IMPORTANT NOTICE: CHANGE OF MEETING DATE TO
OCTOBER 14!!!**

SEE YOU OCT. 22 AT THE ARMORY FOR SHOW SET-UP.

Official publication of the
Central Michigan Lapidary & Mineral Society
Member of MWF & AFMS

EDITORS NOTE: The inside cover is at home. I am at work. I need to get this printed today. Please forgive me for one month w/o all the phone numbers!

The ROCKPILE

May 1996

How about some more information instead? Yeah, I figured that would be ok. ☺

BURIED TREASURE

A Brief Story of Agatized Coral

Agatized coral, in many forms and colors, is found all over Florida. Sometimes these heads are solid, some, as around Tampa Bay, are hollow and properly called "geodes." Agatized Coral is scientifically identified as "Chalcedony Pseudomorph after coral" because one mineral has been replaced with another.

Millions of years ago these "rocks" were colonies of little animals belonging to the phylum coelenterata. One of the anthozoos — they grew as polyps. Coral is the name of the limey skeleton with which they encase themselves. It is also a fossil.

Diluvial action of some kind covered these colonies of animals. This water contained other minerals. Over a long period of time the carbonate of lime skeleton was replaced by the mineral quartz. This form of quartz is called "chalcedony" (cal-CEDE-0-nee). The geodes found in the Tampa Bay area may have centers colored red, blue, or black, of varying size of quartz crystals. In the northern part of Florida solid heads of various shades of yellow, banded with blue or black have been found. Beautiful specimens have been located in the Perry area — Econfinia and Buckeye. The crystal heads of northern Florida differ from the Tampa Bay heads. While heads have been found in all areas, no fingers have been found in the northern Suwanee basin. Many enhydros are found, sometimes in salt water, but the water contained in them is always fresh.

Heads and fingers are highly prized as specimens. Smaller pieces are made into jewelry. They have come to be called "Ballast Point Diamonds" because they were first found in quantity at Ballast Point — and to coral lovers their beauty rivals that of the diamond.

— Wilma D. Bonar, Shawmish Roktawk 2/96,
via T-Town Rockhound, 3/96

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 relatively large and conspicuous crystals in a fine grained ground mass that is, they melt while the other components of the rock 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 color 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. Jaspers' 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.

— Donald Barr, Oregon Rockhound, 3/95,
via Rock Rollers, 3/96.

OCTOBER MEETING WILL BE OCTOBER 14-- 1 WEEK EARLY BECAUSE OF OUR SHOW! LOCATION REMAINS NORTH SCHOOL, 7:30 pm.

PROGRAM: "Ungerground Wealth" a twenty minute video on mining.

SHOW ALERT (jawn)

Your contributions of time, energy and materials are appreciated! Scan the list of needs below & see what suits you. You can sign up for a job at the meeting, or just show up and say: "Where do you need me?"

STUFF NEEDED:

WE NEED OF RAFFLE PRIZES! These should be something real nice which will incite visitors to buy a \$1.00 ticket. Get your donation to Gail Hopkins.

SPECIMENS OR FINISHED PIECES are also welcomed for **Silent Auction, Door Prizes and the Kids Table.** Please label any of the above with identity & location.

HOSPITALITY ROOM: Snack donations are always welcome.

DISPLAYS. We depend on our club members to provide most of the displays at our show. An "application" is attached to this newsletter. Please fill it out & give it to Jean Ann at the meeting, or put it in the mail. If you have an empty case that someone could borrow, please let me know as well.

WORKERS NEEDED:

Thursday

--9:00am meet at Turner's house to begin hauling rock, signs, equipment etc. to armory.

--till 5pm, limited set up at the armory. (Have to leave room for the 5-7pm dance classes.)

--7:00-9:00pm finish set-up; bring in displays

Friday

--8:30 ish am to 1:00 p.m.. The invasion of over 1000 school children. We need help selling minerals to these young'uns and monitoring their behavior. Dress comfortably & be ready to hustle!

--At 1:00 there is a flurry of activity to rearrange things a bit to accommodate the arrival of our dealers, and reorganize the kids table and silent auction for the evening.

During Show Hours:

--Ticket Sales

--Raffle Tickets

--Silent Auction

--Kids Table

--Security/Host(ess)

--Swap Table

--Hospitality

OCTOBER FIELD TRIP-- George Heaton

The field trip for October will be our Gem and Mineral Show at the Marshall Street Armory October 22-24. I hope all of our members will be willing to participate in this event by working at one or more of the many jobs that must be done to put on a good show. The Children's Table will need lots of help, especially during the school tours on Friday morning. And, George would like enough help on Saturday and Sunday so he can goof-off now and then and look at stuff, have a snack, check the silent auction, etc.

A LITTLE MORE ABOUT QUARTZ -- Duane Jorgenson

A bit more about quartz, and as usual a rambling dissertation filled with things you really didn't need to know. Quartz, and its relatives, with its hardness of 7 usually takes a good polish, as you who are lapidarists and faceters already know. Thus you find quartz based polishing powders and abrasives of various type readily available, e.g. sandpaper. Also, the lack of quartz in some kitchen cleanser became an advertising slogan of sorts, as those of you who remember BonAmi with the image of the chick that "Hasn't scratched yet" because it is all carbonate and contains no quartz. Although prisms and pseudo pyramids are the common crystal form, deformed crystals are fairly common. Seemingly forever ago I collected some modestly deformed quartz crystals that looked like miniature deformed obelisks, and still have a few. Japanese twins seem to be highly prized among ardent collectors as they are fairly rare, but don't occur only in Japan. Did you know that quartz, like most people, is either right-handed or left-handed, but not ambidextrous. If your quartz crystals don't have the appropriate crystal faces; it takes an x or s face to tell, you'll have to etch your crystals to see if they are right or left handed. Anyway, as you face m, if x and/or s is on the right, its right-handed quartz, and conversely, if x or s is on the left, the quartz is left-handed. Since x and s are rhombs there are only 3 faces that cut the 6 sided prism m so there should be no confusion about being right or left handed, and only a few folks are sometimes confused about which is their right or left. Etching your crystals sounds difficult to do, that is unless you have a supply of hydrofluoric acid. Handle with care. If it eats quartz, it might eat other stuff too. In addition to being right or left handed, quartz, which name is German provincial origin, has two temperature variations, alpha, which forms at temperatures below 573 degrees and beta which forms at above 573 degrees C. Above 870 degrees there is no quartz formed as tridymite is the stable silica mineral.

Quartz is abundant and easy to collect, common in geodes of George Heaton fame, and I suspect several of the Club members have been collecting in other famous collecting locations:

Arkansas (crystals and whetstones or novaculite), Thunder Bay, Ontario (amethyst), Herkimer, New York ("diamonds"), Pecos River ("diamonds"), Saltville, VA ("diamonds") and many more. However, my reference, Dana-4th edition, also lists the Keweenaw Peninsula as a location for amethyst.

ANNUAL ELECTION OF OFFICERS

The proposed slate of officers is as follows:

President	Mary Kay Bean	Corresponding Sec.	Connie Snepp
Vice-President	Ed Drown	3 Year director	Beth Stinnett
Recording Secretary	Mary Gowans	Liaison Officer	Bettie Patterson
Treasurer	Alan Hukill		

Other nominations are welcome the night of the election, however, you must have the permission of the person you are nominating.

NEEDED: ONE EDUCATION CHAIRPERSON, please contact Larry Bourland if interested.

CUTTING STRATEGIES FOR AGATE NODULES

By Tom Noe

There's nothing quite like it for excitement -- cutting into crystal-lined geodes, dark and mysterious thundereggs or colorful agate nodules such as Lagunas or Condors. Each piece is unique. It might be fairly ordinary . . . or a moderately pleasant arrangement of colored bands . . . or a spectacular example of patterns and colors, destined for your personal museum. You'll never know what's inside until you saw it open and look.

Here are a few hints about what should happen before you start sawing, as you evaluate this humble hunk of possibilities and decide where to make your cuts.

First, clean the nodule or geode thoroughly. Scrub it. Get rid of dirt, lichens, extraneous matrix, etc. Sometimes an exposed agate surface has developed a whitish coating. If so, you can grind off some of this coating to expose the genuine colors of the agate. If the nodule is coated all around with hard, dirty layers, consider tumbling it overnight in rough grit.

Also, chisel out as much soft matrix as you can from large cavities and irregularities in the surface. The goal is to know where the matrix stops and the agate starts.

After cleaning, do a thorough exam of the spruced-up agate. You want to find out everything possible about the interior before you actually start cutting. Here is where an amateur has a big advantage over a dealer. He can't afford to spend lots of valuable time considering where to make cuts; an amateur can take all the time needed to make sure the cut is just right.

Wet the nodule, and look over the entire surface carefully. Check for spots of color change, chipped surfaces, areas which are lighter or darker than the rest. Chipped surfaces will not only tell you what the true colors are, but also how translucent the agate is.

Dark spots or areas of color change on the surface might be signs of inclusions within the nodule. Many agates form by the gradual filling of hollows in rock layers. If crystals or minerals happen to be in the hollow already, they can become encased in agate (like fruit in Jell-O, sort of). The point where they were attached to the rock ends up on the surface of the agate nodule. Inclusions are a very attractive feature of some nodules, so you should look for signs of them on the surface.

Also, hold the agate up against a strong light. What will this tell you? Probably not very much, but it's worth a try. Many of the most colorful nodules are opaque. Obviously, the ones which are the most translucent will have the faintest colors. You might be able to see some inclusions, though. If your painstaking inspection doesn't reveal anything about what's inside the agate, life just got a lot simpler. (Meaning, you have less to think about).

Now let the agate dry out thoroughly and look for any cracks or structural problems. This is important because fractures will limit your cutting options. One thing you definitely do not want to do is listen to a nodule coming apart as you are sawing it. This can be very exciting but quite expensive, since you may need to repair or replace the blade. I say this from experience.

If you see fractures, you might as well go ahead and try to split them apart. I use a small hammer with a very small chisel or a tough knife blade. If the fracture splits easily, fine. If it doesn't split after a few generous taps, I stop. Perhaps the fracture has healed, or perhaps it isn't weak enough to be a problem. The goal here is to insure against cracks that are just on the point of giving way.

So, now you know as much as you can about the nodule without actually cutting into it. It's time to consider your collecting goals. Will you be cutting for specimen halves? For small slabs to tumble? For transparent thin sections? Do you want to expose inclusions? Regular patterns? Irregular patterns? Are you after slabbing material for cabs? You need to plan your cuts, based on the objective you have in mind.

Personally, I like to cut nodules into halves, with each half displaying a full banded pattern and a complete circumference of the original nodule. To achieve this, I have to avoid cutting through any chipped areas on the surface, because then I wouldn't have a complete circumference. Even when a nodule is badly chipped, I can usually find at least one cut that I like, but it may take some doing.

Theoretically, it is possible to pick any three points on the surface of any hunk of rock and make a single saw cut passing through all three points. You probably learned this in high-school geometry - something about a plane passing through any three points on a sphere. Good theory. In practice, though, you may not be able to make this work. Hold the nodule up and rotate it in your hand. If you have only one point that you want to cut through, you have many, many options. If you have only two points to hit, you still have many options. If you need to hit three points, there is only one option.

It helps to think "circumference" constantly as you consider where to make your cuts.

One consideration I have is that I want to expose larger surfaces rather than smaller ones. So, I will often try to cut a nodule lengthwise, down the long axis. Sometimes, on the other hand, I'm looking for a circular cross-section, and that usually means cutting across the width of the nodule.

When I cut to expose inclusions, I plan very carefully. In a very translucent nodule, I can cut somewhere to one side of an inclusion: the whole thing might be visible inside the nodule, as if looking through a window at it. If the nodule is not very translucent, I'll usually cut right down the middle of an inclusion (if the surface shows me where to cut).

If there are two inclusions, you can have some fun. The possibilities are endless with three or more.

So, you are turning the nodule this way and that in your hand, considering where the plane of the saw blade will intersect this theoretical sphere which actually has irregular edges. The realities of our physical universe will now begin to separate the men from the boys.

Pick out a prime cut -- the one that meets all or most of your collecting goals. This is the cut you would make in a perfect world. Relish it; this may be the last time you will see it.

I don't think I need to go into the principles of getting a good cut. The most important requirements

CUTTING STRATEGIES FOR AGATE NODULES, cont.

are looking out for fractures, clamping securely and keeping the leading edge of the rock at approximately 90 degrees as it contacts the saw blade. Experience will tell you how much you can fudge these principles and get away with it.

If your prime cut is workable, go ahead. Saw away. If something is preventing your prime cut, you are now ready to join the real world. (Hey, I never promised you a rock garden.) Start looking for a new prime cut. Think and consider. Rotate that rock some more and try for a third option.

Somewhere along the line, you may realize that your original goal may need to be adjusted. Instead of cutting for a display specimen, perhaps the best you can do with this nodule is to get some slabs for jewelry. In any event, keep at it, thinking and considering. This nodule has been waiting millions of years for you to bring out its inherent beauty; you can volunteer a few more minutes to come up with a bright idea. If totally befuddled, just set it aside and wait a week or two before coming back to it.

Of course, no matter how detailed and creative the planning process, these nodules still bring surprises, but that's what it's all about.

Via The Rockfinder 5/97

SHOP TIPS: Cleaning Crystals

Using Oxalic Acid - Obey ALL Rules - (AAA - Always add acid to water. Wear rubber gloves and do your cleaning outdoors.)

1. Remove all dirt from crystals.
2. Place in Pyrex or ceramic container.
3. Cover with water.
4. Add one (1) pound of oxalic acid powder to three (3) gallons of water.
5. Place over heat outside.
6. Let steam or simmer for 3-6 hours.
7. Set aside until completely cool.
8. Rinse material with warm soapy water.
9. Rinse in clear, cool water.



Above information furnished by Coleman's Crystal Mines, Hot Springs, Arkansas. Recommend you use plastic sieve or strainer to remove crystals from acid solution.

-from Rock Rollers Newsletter, 1/92

More Cleaning Quartz Crystals: One way to clean all types of quartz crystals is to cover them with fresh vinegar to remove carbonates such as calcite, barite, and lime. Allow to stand overnight. Repeat if necessary, then wash well and place crystals in washing type ammonia for 8-12 hours. Remove, rinse and wipe dry.

-from Rock Chip Reporter 2/90

TEN WAYS TO GET RID OF UNWANTED ROCKS via Crystal Cluster 5/98

1. Fix chuckholes in the driveway.
2. Throw them at bill collectors or door-to-door salesmen.
3. Donate them in grab bags.
4. Put them in a tumbler with a double dose of grit.
5. Take them to club displays, then go off and leave them.
6. Slip them into a competitors exhibit when they aren't looking.
7. Throw them over the fence into your neighbor's rock garden.
8. Label them "This gem material insured by Pinkerton." and leave them in the driveway.
9. Take them back to where you got them for other collectors to get.
10. Don't take them home in the first place.

GEMSTONE DYEING via Cabber Gabber & Crystal Cluster 11/97

Mix a box of Rit with a couple of ounces of wood alcohol. Let your stones, polished or tumbled, soak in this solution in a small jar until the desired shade has been reached. This could take 30 minutes or overnight. If too much dye is absorbed, soak in clear wood alcohol. After dyeing, wash in clear water, apply a good wax and polish with a soft cloth. Crazy lace, banded Brazilian agate, etc. can easily be dyed a more pleasing color. Slicing after being dyed can result in some fantastic results.

CLUB CALENDAR

Oct. 14 Regular Meeting, North School
 Oct. 21 Show set up
 Oct. 22-24 OUR SHOW: "A Century of Gems" Fri. 6-9 p.m., Sat. 10-7, Sun. 11-5.
 Marshall Street Armory, Lansing.

SHOWS AND SUCH

Oct. 8-10 Detroit Show. NEW LOCATION: South Macomb Community College Expo Center,
 Building P, 12 mile Rd & Haynes, Warren MI Fri. 9-7, Sat. 10-7, Sun. 10-6.
 Nov. 6 Dearborn Club Auction, Allen Park Civic Hall 15871 Philomene, Allen Park MI
 Sales tables open 6 - 7 pm; Auction starts 7:00 pm
 Nov. 12-14 Midwest Faceters Guild Show. Gibraltar Trade Center South, I-75 Exit 36 Eureka Rd, Taylor MI

-----tear here & give to Jean Ann Wahl-Piotrowski-----
 other options: e-mail: jawp2@voyager.net or phone (616) 948-9589

You can count on Noil & Connie SWAPP to bring a display to the show.

I will bring 3 standard club case(s)

1 pony case(s)

 faceting case(s)

24 + 24 flat something else. Please draw a rough sketch:

 Hey, I want to borrow a case.

No, can't display this year, but would be glad to let
 someone else use my case.