



# *the BEMS Tumbler*

September  
2008

The monthly newsletter of the **Boeing Employees' Mineralogical Society, Inc.** Seattle, Washington

***Next Meeting:  
September 11, 2008  
7:30 p.m.***

**Boeing Recreation  
Activity Center**

Room B at  
22649 83rd Avenue S.

Just off the Valley  
Freeway (Highway 167) North  
edge of Kent

The Program was not known at  
press time

**First Place for Small Bulletins  
in the 2007 NFMS Bulletin  
Editors' Contest!**



*This month remember  
to wish a*

*Happy Birthday to*

*Susan Neill on September 7,*

*Carolyn Sealson on September 13,*

*Tom Dove on September 18,*

*Elliott Woodward on September 18,*

*Roberta Paramore on September 21,*

*Betty Swift on September 25,*

*Karin Wheeler on September 25,*

*Crystal Waters on September 25,*

*Charlotte Churchill on September 27,*

*Kevin Scheyer on September 28,*

*Florentino Francisco on September 30,*

*and also remember*

*to wish a*

*Happy Anniversary to*

*Scott & Anna Burch on September 2,*

*L. W. (Bud) & Marcia Wollam on September 2,*

*Bob & Virginia Bird on September 12 (61 years),*

*Paul & Shirley Stewart on September 17 (47 years)*



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Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

When on field trips this organization uses CB Channel 7.

*Keith Alan Morgan, Editor*

Postal, or Email, Exchange  
Bulletins are welcome.  
Email preferred.

morgangraphix@yahoo.com

## Officers & Directors 2008

*President* Malcolm Wheeler, Sr.  
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*Treasurer* Richard Russell  
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*Director* Bill Cook  
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*Raffle/Display* Keith & Dick Morgan  
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    *Casting* Joe Poston  
    *Faceting* Cliff Frome  
    *Jewelry* Joe Poston  
    *Lapidary* Dick Morgan

Club eMail address is  
**morgangraphix@yahoo.com**

2008 BEMS Dues are \$15 flat rate Individual, Family, or Retired.

Send or deliver dues to:

Richard Russell

(or pay him at the meeting)

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the *Boeing Company*; the *American Federation of Mineralogical Societies*; the *Northwest Federation of Mineralogical Societies*; and the *Washington State Mineral Council*.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Dick Morgan

To get information to the Tumbler via the Internet send it to **morgangraphix@yahoo.com** Please put Tumbler and subject in the Subject Line. The deadline is the 20th of each month, (except December which varies).

The BEMS external website is **<http://www.bemsonline.com>**

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Don't be satisfied with scratches on your cabochon. Go back and do the job again. When a stone is properly polished, you can read the information from the bottom of an overhead light bulb in the high polish of your stone.

To work out a flat spot on a cab, mark a cross on the stone with an aluminum pencil. When it's properly ground and shaped, you will have erased the cross and flat spot.

When polishing, don't use a messy brush to apply polishing agents. Such methods invite contamination. Instead procure a plastic bottle with a long tip, such as beauticians throw away every day. Put the polishing agent into the bottle, add water and a small stone or buckshot to agitate and stir up the polishing, and apply to wheel.

via West Seattle Petroglyphs, 8/08; via Carny Hound, 6/08; via Rock Rollers 6/08; via Mountain Gems, 5/08



# September



SUN	MON	TUE	WED	THUR	FRI	SAT
Goodbye Summer, Hello Fall!	1 Lapidary Shop	2 Board Meeting 	3 Show Committee Meeting	4	5 Faceting Class	6 <u>Red Top Pow-Wow</u>
7 <u>Red Top Pow-Wow</u>	8 Lapidary Shop	9 Lapidary Casting Jewelry	10	11 General Meeting 	12 Faceting Class	13 <b>BEMS &amp; Puyallup Clubs Trip</b>
14 <b>BEMS &amp; Puyallup Clubs Trip</b>	15 Lapidary Shop	16 Lapidary Casting Jewelry	17	18	19 Faceting Class	20 <u>Marysville Club Trip</u>
21 <u>Marysville Club Trip</u>	22 Lapidary Shop	23 Lapidary Casting Jewelry	24	25	26 Faceting Class	27
28	29 Lapidary Shop	30 Board Meeting 				

Lapidary Class Hours:.....Monday.....7:00 pm to 9:00 pm  
 Lapidary Shop Hours:.....Tuesday.....9:00 am to 6:00 pm

More Field Trip info can be found on Page 9  
 More Show info can be found on Page 10

Jewelry Shop Hours:.....Tuesday.....9:00 am to 6:30 pm  
 Jewelry Casting Hours:.....Tuesday.....9:00 am to 6:30 pm (Casting Information All Day)

Faceting Class Hours:.....Friday.....4:30 pm to 8:00 pm

South Sound Show Committee Meeting...1st Wednesday...11 am - Noon

BEMS Board Meeting:.....Tuesday (9 days prior to General Meeting).....9:30 am to 10:00 am  
 BEMS General Meeting:.....2nd Thursday.....7:30 pm to 10:00 pm

**Unusual Mineral Fact:** Many rocks look better in the field than they do when you get them home

TKRM ©2008

Wow! This specimen is beautiful!

Why did I pick up this ugly rock?

The Tumbler has received One-Time Rights to publish this cartoon

**BEMS Board Meeting Minutes monthday, 2008**



Not enough members for a quorum.

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**BEMS Picnic August 10, 2008**



The picnic was held on a nice day. Members brought good food, good stories and memories and some rocks. A very good picnic.

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**From Atop The Rock Pile**



By Malcolm Wheeler, Sr., 2008 BEMS President

September

It's back to school for all of us. Shop class is ready to start. Faceting class also. Don't be BLUE, I'll give you a sapphire clue.

We need volunteers to show us how to work in both rooms. Please see Dick Morgan or his crew of rock nobbers to teach the do's and don'ts in our rooms. We need to stop unnecessary wear on our equipment and learn how to be safe and clean up after our selves.

Cliff and Dick and their rock nobbers want to help all of us shine like a bright sapphire for all to see and admire. Thanks.

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**Young Richard's Almanac** by Dick Morgan

As we approach November, we have to endure the electioneering which makes one think of the people who wrote the constitution and that the thoughts on that piece of paper are still valid to this day. Over the years it endures even though there are those who wish it wouldn't.

For Socialism to work requires a Fascist leader.

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**Cracking Geodes Open (Without Destroying Them!)** by Ray Hill

Seems I'm always getting calls from folks asking "How can I crack a geode open without breaking it into small pieces?" Well, there are a number of ways, some good and some not so good. Here, I will outline four of the most common ways for you.

1. Diamond Saw. Should you be fortunate enough to have a large diamond saw, or know someone that owns one, you can saw the geodes in half. This works best when there is a vice to hold the specimen. You can cut the geode open and end up with two halves with a smooth face on each. (But not every one has a diamond saw.)

2. Another method of opening geodes that works well, (the method I use most often) is to crack the geode open with an old fashioned cast iron plumbing pipe cutter. This is a tool that plumbers used to use in doing plumbing in homes when they worked with the cast iron plumbing pipes. (Homes built prior to about 35 years ago.) I have one of these tools that I use to break geodes open and most of the time I can break them with two matching halves. This really does a good job. Maybe you have seen show dealers that were breaking geodes open with one of these tools. The tool has a chain at the business end with links like a bicycle chain, and in this chain there are round carbide rollers with sharp edges on them. To break the geode open, you simply wrap the chain, with the carbide rollers, around the geode, and fasten it into a notch in the tool and press down on the handle. This constricts the chain around the geode evenly all the way around and squeezes to where it breaks the geode open into two halves. This works good. Like I said, I use one myself. I got my cast iron plumbing pipe cutter from a retired plumber here locally. If you're going to break a lot of geodes you may want to get you one.

3. Hammer and chisel. Most folks don't have a diamond saw or plumbing pipe cutter, and only want to break a couple of geodes open. Well, you can do a pretty good job with a hammer and cold chisel. I've done it a number of times and it works good. Take your hammer, cold chisel, and geodes outside where there is a concrete walk, driveway, steps, etc., in other words a hard surface. I wouldn't try it on a wooden surface. And you almost need three hands to do this. Place the geode on the concrete and hold it on the sides with one hand, then hold the cold chisel on the top of the geode and strike it LIGHTLY with your hammer. Don't try to break it open now.... Rotate the geode about a half-inch, place the chisel in line with where you just hit it and strike the chisel again... LIGHTLY. Do this all the way around the largest part of the geode.

By the time you have hit the chisel in a line all the way around the geode, it should be ready to open. If the geode has not broke open at this point, start around the circumference again, striking the geode with the cold chisel in a straight line. Strike the chisel a little harder this time. This is a little slow, but if you do it right and don't get in too big a hurry, you should be able to break the geode open into two halves that you can fit back together to where you can't hardly tell where it is broke. Try this.

4. Hammer. Of course you can strike the geode repeatedly with the hammer until it breaks open, but it most likely will end up in a few pieces. Not a good method!

via The Quarry, 6-7/08; via Hound's Howel, 12/05; from <http://www.greatsouth.net>

**HR 554 Resurrected Again!** by John Wright, AFMS Conservation & Legislation Chair and Shirley Leeson, AFMS President

The Paleontological Resources Preservation Act, HR554, has once again this year been resurrected, reviewed, and approved by the Agriculture Committee. This bill is on a "fast track" for passage and will most likely be voted on by the House of Representatives shortly after their return from summer recess which means September or October unless there is some unforeseen delay. I fully expect it to be quickly passed by voice vote, or quietly tacked onto some other major piece of legislation. It appears that a compromise has also been reached for Senate approval. While you may not agree with my assessment of this bill, it is important that we let all our members know that it is back on the table so to speak and hopefully they will take appropriate action.

I want to emphatically remind you again, this is a dangerous piece of legislation that is going to hurt a lot of innocent people. The bill is so vague and open to interpretation that you can be arrested, have your vehicle impounded, and be tried for driving on a federal highway with a small rock wedged in the tread of your tires. As I said before, there is no requirement for the arresting officer to be knowledgeable regarding fossils or rocks, the burden of proof is your problem. I wonder what happened to innocent until proven guilty. Does the gravel in your driveway contain fossils? Your neighbor can turn you in for a nice reward. Secret "Area 51" type sites for paleontologist; sounds ridiculous, but unfortunately this bill authorizes it.

Who is going to benefit from this bill? A few inconsiderate paranoid college professors and museum curators that seriously lack the competence to compete in a free market society. Actually, this group is really all about money in the form of job security, grants, books, articles, TV specials, and speaking fees. The fact that more than 90% of the major fossil discoveries are made by amateurs causes symptoms suffered by these "professionals" very similar to a severe case of hemorrhoids.

"We the people" according to the Constitution own the federal lands and support them with our tax dollars, so why should a small special interest group be given exclusive rights to our lands? The justification used by paleontologist is to preserve rare fossils for future generations, but aren't these the same scholars that warn us that the catastrophic circumstances that led to the demise of the dinosaurs and many other species in the past is going to happen again. They say "it's not a matter of if, but when," so according to their own philosophy the prospects for any future generations are not very good.

They say that rockhounds (informed amateurs in their vernacular) destroy sites and remove critical evidence needed by the scientific community. Well, I recently spent several weeks reviewing paleontological articles and publications plus numerous other well known scientific publications covering a span of about 50 years and while I'm sure there must be many references to cleaning up excavation sites, I did not find any. However, I easily found hundreds of articles and references about leaving a site "as good as or better than found" in the American Federation of Mineralogical Societies' monthly Newsletters, the seven area Federations of Mineralogical Societies' monthly newsletters, and the numerous local Gem & Mineral Societies' monthly bulletins. It sure seems to me like rockhounds (whoops "informed amateurs") are a little more concerned about conservation and protecting the environment than the scientific community.

Once the scholars and curators acquire our fossils from our lands, they will be tucked away in storage areas at universities supported by our tax dollars, to be studied by students who we as parents pay tuitions for, and taught by professors whose salaries are paid by our dollars and tuition fees. The museums built with our tax dollars and our donations will have experts whose salaries are paid by our taxes and donations prepare the fossils owned by us for display so "we the public" can see them for a fee. Talk about a stacked deck!

A lot of politicians have benefited by riding on the environmental bandwagon, but with the price of gasoline skyrocketing, travel, food, utilities, building materials, and almost everything else going up astronomically, being "Green" is becoming more of a political liability than an asset. Someday, they may even come to the realization that people who spend their lives studying petrified bones and dinosaur poop don't add a lot to the economy.

Another important product of this legislation will be to further enhance the black-market trade. It's already a lucrative business and this bill will just increase the price of American fossils overseas. With people, merchandise, and tons of narcotics being smuggled freely across our porous borders, moving fossils out of the country shouldn't pose much of a problem.

It is ironic, but we spend billions of dollars helping other nations gain independence, become democracies, and their people enjoy the benefits of freedom. Unfortunately, the same politicians that appropriate our tax dollars for this noble purpose turn right around and help implement policies to accommodate special interest groups that place far more restrictions on our freedoms here at home.

Time is short to stop or change HR 554. About the only alternative we have left at this stage is to call our representatives and tell them how we feel about this bill. I know that many of you are leery when it comes to talking directly with dignitaries and that it may be difficult for you to contact your Representatives to talk with them in person. Most of the members of congress maintain offices in their districts and the staff members working for them at these offices are local people. If you call and talk with a member their staff, you will normally find them to be very friendly, courteous and easy to talk with because they want your vote and support. Most importantly, they pass information received from constituents on to their boss. If they get several calls, a red flag, so to speak, goes up indicating areas of importance. Often this is a better way to get the attention of your Representative as he or she wants and needs every vote to stay in office. Constituents usually are more influential than anyone else when dealing with legislators.

I might add a note of interest at this point: our club sends a courtesy copy of our monthly bulletin (which includes my AFMS & SFMS articles) to both our U.S. Senators and our Representative. We have been told that it is well received and appreciated by them.

Congress is currently in recess and will reconvene on September 5. This means you have a very short window to contact

your representative. Take advantage of it! Remember too, although this bill is aimed at fossils, it's possible that the next piece of legislation will target the collection of minerals or cutting rough!

We're not in this battle alone. At least one Congressman, John Culberson of Texas, has been working to have this bill killed or favorably amended, but he cannot do this by himself. Here are a few things you can mention when you contact your congressman:

1. Tell them you are a rockhound/amateur collector.
2. Tell them that as the bill stands, anyone can be put in jail for picking up a rock that might look like a fossil to the "untrained eye" of a BLM or Forestry person. This would result in the confiscation of their vehicle and all equipment and the burden of proof will be on the individual in court of law! Do these representatives really like the idea of their parents, grandparents or constituents being arrested? Remind them that these people are voters!
3. Amateur collectors have been responsible for many of the finds of important fossils over the years. If the bill is enacted into law, this will stop.
4. Fossils are not renewable. Once fossils are exposed by wind and rain they will disintegrate. Professional paleontologists usually don't have the time, the money or the staff to check out paleo sites found by amateurs, but they don't want us to collect them either.
5. This bill is a disaster for rockhounds, and I urge you to stop it.

from AFMS Newsletter, 9/08

## How To Put The Eye In Tigereye

After your slab has been cut parallel to the fibers, look across the slice at an angle of about 60 degrees. You should see the half of the slice toward you either dark or light and the other half the opposite. Mark lightly with pencil the dividing line between the dark and light.

Rotate the slice end to end and hold in the same plane. If the light side was near you before it should still be near you even though you rotated the slice. Mark the dividing line again, and hope your lines are in the same place.

Now turn the slice over so the top becomes the bottom, and you should have a reverse of the lighting effect. If the light side was near you before, the dark side should be near you now. When you see the dark side near you, you are looking at what should be the TOP of the finished stone. Cut the stone with a high dome, and you will have a floating eye.

via Golden Spike News, 7/08; via Petrograph, 7/07; from Southwest Gem

## Tumble-Polishing Lepidolite by Richard Casey

Put good chunks (2-3 inches) in your tumbler and fill to 80% capacity. Cover rocks with water. Let it run — NO GRIT — for about 2 days. Open tumbler, clean up contents well, then add more water and 220 grit. Tumble until nice and smooth. Open tumbler, clean up contents well, add polish and tumble a bit more. Open tumbler, clean up one last time, and you're done! You can keep the natural grits that result from the first two steps and use them for other things. Example: ceramic glaze contains lithium (a component of lepidolite).

via Pegmatite, 2/06; from LA-Rocks

## Rare Gem Unearthed In The Nation's Capital by Erich Grundel

Did you know that the Metro has two subway stations in Washington named after mineralogists? You undoubtedly know one of them: Smithsonian. James Smithson (1754 (?) - 1829) was an English mineralogist who left behind an estate that was used to establish the museums that bear his name (Rhees, 1880). Who is the second one?

Twice a day I pass through the Fort Totten station, not having known until recently, that it is named for a one-time mineralogist, General Joseph Gilbert Totten (1788-1864) had a remarkable military career that spanned more than 60 years (Cullum, 1890). He entered the first class at West Point in 1802 at the age of 14. At 17 he received his commission as a Second Lieutenant. He fought in the "Second War of Independence", more commonly known as the War of 1812, the Mexican-American War, and served in the Union Army in Washington during the Civil War until the day of his death.

His legacy is to be seen to this day (Barnard, 1877). In 1838 he was appointed Chief Engineer of the (Army) Corps of Engineers, a position he held for the remainder of his life. He developed a string of forts along the Atlantic Coast designed to protect the country from invasion. Some of these forts still stand and were used as recently as WWII for the same purpose they were originally intended to fulfill. He is also responsible for some of the early lighthouses, most of which still exist, that are found along the coast. He was known for the meticulous care to detail that made his works sound and lasting. He applied scientific methods, often conducted by him in the laboratory or sometimes in the field, to study the materials used to construct these structures. He is probably the only officer ever to have three forts named after him: Washington, Queens (NYC) and North Dakota.

Despite a very military career, General Totten had many outside interests. He was particularly involved in natural history, especially conchology, geology and mineralogy. In 1824 he published a paper on the use of the blowpipe in mineral analysis (Totten, 1824). The paper begins, interestingly, with an evaluation of Smithson's use of the device. He modified one of Smithson's procedures

that now allowed one to subject very minute particles of minerals to the flame. This extended the range of the blowpipe, that is to say, to lower limits of detection.

In the 1830's, General Totten became one of the driving forces behind the National Institution for the Promotion of Science. This is regarded as the precursor of the Smithsonian Institution. In 1841 he donated his mineral collection to the National Institution (Anonymous, 1842). During the period of the national Institutions' existence, Congress was debating what to do about Smithson's will. In 1846 General (then Colonel) Totten was named in the act of Congress organizing the Smithsonian Institution as one of its Regents. He was eminently qualified for he was in his own right not only an active scientist and capable administrator, but was someone who was very well acquainted with Smithson's accomplishments as a scientist.

In 1863 General Totten was selected as one of the original members of the National Academy of Sciences (Chochrane, 1978). By this time his mineral collection had been transferred to the Smithsonian Institution and at least part of it was probably on display along with specimens from Smithson's collection. General Totten died suddenly, probably due to pneumonia, on April 22, 1864. His grave may be visited, along with those of many other famous Americans in Washington's well known Congressional Cemetery.

In 1865 a fire at the museum destroyed most of the exhibits (Goode, 1897). Among the losses were Smithson's, Totten's and other early collections (Paul Powhat, personal communication). By now you might be asking yourself what does all this have to do with the title of this article. Shortly thereafter, to secure valuable records against a future loss to fire, the Smithsonian transferred its library to the Library of Congress. Among the items sent was Totten's beautiful "List of A Cabinet of Minerals Presented to the National Institution in the City of Washington" (Totten, 1841). Today we call this a mineral catalogue. General Totten was known to be "An admirable draughtsman, executing his work with delicacy and finish that defied competition..." (Barnard, 1877). The catalogue shows this quite well. Without an error he compiled an orderly arrangement, according to the classification system of the early American mineralogist Parker Cleaveland (Cleaveland, 1822), of the 728 specimens of fossils, minerals, ores, rocks and a few Indian artifacts he donated to the National Institution. The catalogue bears a record of it being part of the Smithsonian Institution's property.

Among the most interesting specimens, some of which can still be obtained today, listed are the following: 56 aarragonite (sic) 2 crystals, Arragon (sic), Spain (Blount, 1977); 66 fluor spar (fluorite) crystals, Shawneetown Illinois (Goldstein, 1977); 68 massive fluor spar from Shenandoah (Valley?), Virginia; 77 selenite crystals from Fort Washington, Maryland (a nearby locality that was, in the past era, a MSDC (Mineralogical Society of DC) field trip site); 199-204 silicified wood (petrified wood) Washington, DC; 221 spinelle (sic), Sparta, New Jersey (from Franklin Marble, as are the following spinel specimens); 222-223 spinelle (sic), Amity, New York (Kearns, 1978); 394-397 augite-pyroxene, Kingsbridge (Conklin, 1997); 536 red oxide of copper (cuprite) from Demidoff (The Demidoffs were a Russian family that, for two centuries, controlled many mines in the Ural Mountains. How the general obtained this specimen would be interesting to know); 673 manganese (One of the oxides of manganese, probably pyrolusite or manganite) from Harper's Ferry, Virginia (West Virginia was then part of Virginia. The sample probably came from the Dargan mine in Maryland, about 2 miles from Harper's Ferry).

Both amateur and professional mineralogists in the Washington, DC area can look upon General Totten as a model. He left behind a small legacy, that still speaks to us today that is a link in the unbroken chain of interest in minerals in our capital that goes back at least 165 years. The Mineralogical Society of the District of Columbia is part of that link and no doubt the general would have been a member if we had existed back then.

Late in 2004, a spare moment and curiosity, led me unexpectedly to his catalogue, a rare gem, while doing some unrelated research at the Library of Congress. I don't know who has looked at it during the 140 years since its transfer, but I suspect not many.

#### References:

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**How To Use A Vibrating Flat Lap** by Steve Scarborough*Setting up*

Level the pan by adjusting the legs. Use a builder's level. Cross the pan in various directions. Tighten pan and secure the machine so that it does not move & fall off the table or shelf. Use a cardboard box to shield the surrounding area from splashing grit.

*Rock Prep*

Lightly grind the edge of the rock to prevent chipping. Cover bottom of rock with Sharpie marker, white out or crisscross with an aluminum scribe. If the rock absorbs the sharpie ink, it will be hard to clean. Soaking overnight in denatured alcohol should help.

To prevent rocks from colliding, surround each rock with a bumper (made from old hoses or plastic tube held in circles around each rock.) or divide the tray into quarters with rubber hose. Be sure there is a bumper ring at pan edge. Small rocks may be separated by plastic beads.

Voids in the rocks can be filled with paraffin, shaved flat at the surface. The paraffin must be changed at each polishing stage. Remove it by dunking the rock in hot water to soften the wax. Then use a toothpick to remove the wax.

Rocks need to have sufficient mass (weight) to press against the grit. If they are too light, they will simply float on top of the slurry. You can use modeling clay or dop wax to attach another rock on top of the piece you are working. For slabs you can use a special lead weight designed for this purpose.

*First grind*

The first grind is used to remove any saw cut mark. If there are bad saw cuts, this stage may take a long time. If you have a good saw-cut, then this step-can be skipped.

Begin with a slurry made with approximately 2 tablespoons 60/90 grit and water. Monitor the process by checking it at least once an hour. You may need to check it more frequently, depending of the ambient temperature and humidity. If more water is needed, try adding it with a hand sprayer. If the slurry feels smooth, add a little bit more grit to recharge it.

If you can't check the process (like when you're sleeping at night), turn the machine off. Do not let rock or pan dry out with the rock sitting flat the pan. The slurry between the rock and pan surfaces rock will siphon out and the rock will adhere to the pan. If this happens, it can be dislodged by wetting the pan and the rock and running the lap.

*Second Grind*

Thoroughly clean the lap pan and rock to remove any residual coarse grit. Use an aluminum scribe to remark the rock's surface.

The second grind stage generally takes less time, about - typically 1 to 2 days. Soft materials will need considerably less time and must be closely watched. Make a slurry using 220 grit and monitor the process by checking it at least once an hour.

*Fine Sanding.*

Again, thoroughly clean the lap pan and rock to remove any residual grit. Do not use an aluminum scribe at this stage as the scribe may scratch too deep. The fine sanding stage usually takes about 1 day. Make a slurry using 600 grit and monitor the process.

*Polish*

Again, thoroughly clean the lap pan and rock to remove any residual grit. Cover the pan bottom with polishing felt or leather. Make a slurry using tin oxide or a combination of  $\frac{1}{3}$  cerium oxide with  $\frac{2}{3}$  tin oxide. Too much polishing material will cause foaming. When tin oxide foam creeps up the side of a geode it is difficult to remove the residue from the rough outer covering.

via West Seattle Petroglyphs, 3/08; via Golden Spike News, 12/07; from The Emerald Gems Newsletter, 12/07

**Drilling Holes in Agate Slices** by Steve <goin4brke@aol.com>

Equipment: You will need a sturdy drill press that will turn fast, about 10,000 rpm. Don't use the new Dremel drill press, as they flex too much. The old metal ones are good, also the Foredom drill press is good, if you have their tool. I use an old Dumore; your drill press doesn't have to cost a lot. I purchased a metal drill stand at a yard sale for \$2.00 and mounted my Black and Decker rotary tool on it, and that also works well. Do not buy the Covington gem drill to drill agate, as it goes too slow. It is meant for soft stones, not hard rock like agate.

Drill Bits: I start with a small hole. If it needs to be bigger, I ream it out. It is much easier to drill a small hole than a big one. I start out with a 1.4 mm diamond bit, then I ream it with a 1.8 mm triple ripple diamond bit - this bit is fluted and tapered, and I use it only as a reamer.

Coolant: I use Kingsley Tool Cool to keep the bit cool. You will need a shallow container to hold the stone to be drilled and the coolant. I put a thin wood backing under my stone so that the bit does not puncture my container as the bit comes through the back of the stone. Put just enough coolant in the container to cover the stone.

The Method: Now, here is the secret: use light pressure and a rapid up and down motion. This will keep the diamonds on the bit cool and lubricated. Too much pressure, and you will fry your bit or break your stone. If you do not go up and down fast enough, you will burn the bit up. You will find there is a rhythm to it, and within a few slabs, you should be onto it.

Yield: I get 8 to 12 holes out of my 1.4 mm bits and about 100 holes with my 1.8 mm triple ripple bit (remember, this bit is just used as a reamer, not as a drill bit). I use the Kingsley North bits - their cheap ones - if you can call them cheap.

via Breccia, 8/08; via Pegmatite, 6-8/08; from LA-Rocks, 5/4/08

## Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Some trips have fees to non club members, so they can be a day member, and be covered under club insurance. The usual fee is \$.50 a day.

Information from the Washington State Mineral Council webpage (<http://www.mineralcouncil.org>).

**September 6 & 7**      *Pow Wow Club - Red Top Mountain - Agate, jasper, crystals - Will need digging & light hard rock tools*  
 Meet at Teanaway West Fork campground  
*Rocky McCall (360) 629-2515 or rm711@tgi.net*  
*Pauline Miller 360-658-8091*

**September 13 & 14**      *BEMS & Puyallup Valley Gem & Mineral Club - Greenwater - Agate, jasper - Will need digging & light hard rock tools - Meet at 9 am at Camp 7222?*  
*Erik Chilson 360-825-3138, infernalspawnofevil@hotmail.com*

**September 20 & 21**      *Marysville Rock and Gem - Gothic Peak - Quartz crystals - Will need digging & light hard rock tools -*  
 WARNING: Strenuous 5 mile hike  
*Ed Lehman (425) 334-6282 or wsmced@hotmail.com*

## Try A Club Awareness Project by John Eichhorn, SCVGMS Member

Have your club members participate in a group project that will increase the public and government awareness of the rockhound's hobby. Organize and donate a display case of minerals related to your specific collecting areas.

This project idea was the result of a meeting with Erik Zaborsky and Brian White of the Hollister California BLM field office, and BAM (Bay Area Mineralogists), along with members of other San Francisco bay area rock clubs.

The purpose of the meeting was to gather opinions and ideas about the use, maintenance and possible closure of the Clear Creek Recreation Area. This area is a unique and important source for all rockhounds. One of the ideas stressed by the BLM officers was a need for participation by specific use groups in making your voice heard by the government. They want evidence showing a need for our use (and their jobs), to pass up the line. In other words "squeaky wheel gets greased."

Clubs can volunteer to donate items, have volunteers work day to help maintain, clean, and give opinions on the use of rock collecting areas.

The Santa Clara Valley Gem and Mineral Society's idea was to donate a display case of minerals, specifically collected from the BLM Clear Creek Special Recreation Management Area. We chose a wall hanger oak curio cabinet with a mirrored back and six glass shelves (Lincoln model by billscustomwoodworks.com). John Eichhorn organized the proposal and purchase of the case by the club, along with the continued correspondence with the BLM Office; Rick Kennedy provided specimens and the expertise in the identification and site location; and Frank Mullaney provided labels with the name and collection area, along with a dedication plaque.

The case of Clear Creek specimens was presented to Lesly Smith, Outdoor Recreation Planner, and installed on the wall of the Hollister field office lobby in December, 2007. This mineral display case project provides an excellent example of how we can provide or improve public and government awareness of our clubs and the use of our lands. A donated display project makes our presence seen and heard.

Get your club involved in a display project related to your particular collecting areas. Find BLM field offices, state or federal parks, county and city parks, libraries, museums, schools, that need a donated display. How about where you go for distant field trips? These areas have all of the above. A display project could even be a collaborative effort by regional groups.

Our cost estimate for the wall hanging curio cabinet is around three hundred dollars, with the specimens and labels being donated by club members. Get your club members involved in a group project. Start a donated club "Awareness" display case.

from Breccia, 2/08

## How To Cut For The Schiller

When the schiller is the brightest part of the stone (i.e., the eye in tiger-eye), one should orient the stone to get the schiller (eye) centered on top of the slab where it shows the best. This applies to all materials with schiller, such as moonstone, sunstone, labradorite, etc. To do this, place the stone in a small box filled to within 1/4" of the top with sand. Under a bright light, rotate the stone until you see the brightest Schiller. With a straight edge on the top of the box, mark all around the stone with a permanent marker. Saw the stone on this line. This will become the back of the finished stone. This technique was developed by Larry Duncan, founder and first president of the CFLS.

via Golden Spike News, 7/08; via Breccia; from Calgary Lapidary Journal



# Shows



**September 6 & 7:** Saturday 10 am - 6 pm; Sunday 10 am - 4:30 pm  
**Umpqua Gem & Mineral Club, Annual Gem & Mineral Show "Rocks Under Foot"**  
 Douglas Co. Fairgrounds  
 Douglas Hall  
 I-5 exit 123  
 Roseberg, Oregon

**September 13 & 14:** Saturday 10 am - 5 pm; Sunday 10 am - 5 pm  
**Marcus Whitman Gem & Mineral Society, 39th Annual Gem and Mineral Show**  
 Walla Walla Co. Fairgrounds  
 Community Center  
 9th St. Orchard  
 Walla Walla, WA

**September 19 - 21:** Friday & Saturday 10 am - 6 pm; Sunday 10 am - 5 pm  
**Farwest Lapidary Rock & Gem Society, South Coast Rock & Gem Fest 2008**  
 4th St. parking lot—across from Outdoor-in Family Restaurant  
 Downtown  
 Coos Bay, Oregon

**September 20 & 21:** Saturday 10 am - 6 pm; Sunday 10 am - 5 pm  
**Hellgate Mineral Society, 14th Annual "Rockhounding In The Rockies"**  
 Ruby's Inn & Convention Center  
 4825 N. Reserve  
 Missoula, Montana



## Internet Addresses

The Meteorite Exchange  
<http://www.meteorite.com>  
 from Pegmatite, 3/07

Australian Museum Online Paleontology section  
<http://www.amonline.net.au/palaeontology/>

University of Pittsburgh Department of Geology & Planetary Science  
<http://www.geology.pitt.edu/>

Fossils.com  
<http://www.fossils.com/>

Facet Shoppe  
<http://www.gemcutter.com/>

Geology news  
<http://geology.com/>

Oceans of Kansas Paleontology  
<http://www.oceansofkansas.com/>

Kronosaurus Korner - Richmond Marine Fossil Museum  
<http://www.kronosauruskorner.com/>

GeoSymbols  
<http://www.geosymbols.org/>

