



the BEMS Tumbler

December
2008

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

Christmas Party:
Sunday, December 14, 2008
Set-up 11 a.m.
Party starts at 12 Noon-ish

**Boeing Recreation
Activity Center**

Room D at
22649 83rd Avenue S.

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

**Merry Christmas
&
Happy Holidays!!!**



*This month remember
to wish a*

Happy Birthday to
Karen Boucek on December 1,
Eugene Martin on December 11,
Wanita Martin on December 14,
Vinnie Noble on December 14,
John Carter on December 16,
Peter Lo on December 17,
Fanny Poston on December 27,
Dave L. Scott on December 27,
Debbie S. English on December 29,
Beverley Williams on December 29,

*and also remember
to wish a*

Happy Anniversary to
Larry & Mary Kissinger on December 14 (63 years),
Gerald & Mary Stickman on December 16,
Paul & Holly Grieve on December 19 (27 years),
Jerry & Sandy Chilson on December 29,
Peter & Beverley Williams on December 29 (26 years)



This publication is an official bulletin of the Boeing Employees Mineralogical Society Inc. (BEMS) however, news items and editorial comment herein do not necessarily reflect the views or opinions of the BOEING COMPANY.

Except where otherwise noted, material from The Tumbler may be reprinted for non-commercial purposes, provided that the author(s) and source are acknowledged.

For commercial use, the author(s) must be contacted for permission; if no contact information is given, contact them via the editor.

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.
Vice President Scott Burch
Treasurer Richard Russell
Secretary Pete Williams
Director Bill Cook
Director Dick Morgan
Past President Mike Brimmage
Federation Representative Michael Blanton
Federation Representative Jerry K.F. Chilson
Mineral Council Bob & Jackie Pattie
Refreshment Esther McKain
Membership Keith & Dick Morgan
Health & Welfare Carolyn Sealton
Library Charlotte Churchill
Video Library Stephanie Jurado-Smith
Raffle/Display Keith & Dick Morgan
Field Trip Bill Cook
Tumbler Editor Keith Alan Morgan
Webmaster Keith Alan Morgan
Shop Operations Cheryl Edgar
Shop Instructors:
 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 **greenrockdraggin@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>**

Storing Your Silver Stock by Ed Hansen

You can also use these accordion folios to organize your silver stock (sheet, wire, etc.) and cut down on scratches. However, another way to organize your silver stock is to get sheet protectors that fit into a 3-ring binder. These individual plastic pockets are designed to protect a sheet of paper. You can put a single piece of silver stock in each sleeve and keep them all in a 3-ring binder. When you need to browse through your silver stock, you can flip from page to page and see exactly what you've got. Plus the plastic sheets keep the pieces of silver from scratching each other.

via Breccia, 11/08; via The Tektite, 4/04; from the Pegmatite, 3/04



December



SUN	MON	TUE	WED	THUR	FRI	SAT
<p>Happy Holidays!</p>	1 Lapidary Shop	2 Board Meeting 	3 Show Committee Meeting	4	5 Faceting Class	6
7	8 Lapidary Shop	9 Lapidary Casting Jewelry	10	11	12 Faceting Class	13
14 Christmas Party 	15 Lapidary Shop	16 Lapidary Casting Jewelry	17	18	19	20
21	22	23	24	25 Christmas 	26	27
28	29	30	31 New Year's Eve 			

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

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 Meeting.....1st Wednesday.....11:00 am
 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

Mr. and Mrs. Rockhound

by KAM



BEMS Board Meeting Minutes November 4, 2008

by Keith Morgan

Members Attending:

President Malcolm Wheeler

Librarian Charlotte Churchill

Shop Operations Cheryl Edgar

Mineral Council Bob & Jackie Pattie

Editor Keith Morgan

Shop Dick Morgan

Refreshments Esther McKain

Guest Pat Morgan

Meeting began at 9:38 AM.

New Business: The next board meeting was changed to Saturday, December 6.

Washington state new code says removal of plants, or rocks illegal unless have a permit.

Elections: The Tumbler ballot listed the wrong person as President & one wrong person for Vice-President.

Show: Will need someone to stay overnight at the show on Thursday night.

Will load Morgan's van with cases, assorted items & coffee pots by 7 AM Thursday. Get to Fairgrounds at 9 AM. Case set-up at 2 PM.

Bring extra extension cords & glass cleaner.

Someone will need to take over the creative center since Bill Cook had to leave town.

Christmas Party: There will be a silent auction & tables to show goodies.

Shops: Need blades fixed. New wheels have been ordered.

Faceting room is okay. Everyone likes new money box.

Meeting adjourned at 10:30 AM.

Celebrating The Hard Stuff by Keith Mulvihill

In 1955, a handful of mineral enthusiasts (O.K., call them rock geeks) from the Tucson Gem and Mineral Society got together to show off specimens from their personal collections at a local elementary school. From this small beginning, the annual Tucson Gem and Mineral Show has grown into the largest event of its kind in the country, a mega-celebration for rock lovers and a curiously mesmerizing attraction for spectators who don't know staurolite from Styrofoam. As many as 25,000 people were expected.

More than 125 exhibits had rocks and gems from private collectors and from museums including the Smithsonian Institution, the Museum of Natural History in New York, the British Museum and the Mineralogical Museum at Harvard. There was an opening reception, lectures, a micro-minerals room, an educational "mineral maze" for children, and more than 300 vendors.

"It's basically a giant museum exhibit that could never exist in an individual museum," said Peter Megaw, an organizer of the show. "You're seeing stuff in one place that you'd normally have to log a lot of miles all over the world to see."

As the Tucson show has grown, dozens of satellite shows have sprung up all over Tucson to get in on the action. Today they are grouped into a broad community event called the Tucson Gem, Mineral, and Fossil Showcase. "I think if you had to pick one word to describe the whole scene, it would be 'overwhelming,'" said Gene Meieran, an avid mineral collector from Phoenix. Practically every hotel and gas station has made space for people to show and sell stuff. Even if you spent 24 hours going around, you could not possibly see everything there is to see." Of the ancillary events, he especially likes the Arizona Mineral and Fossil Show and the Westward Look Mineral Show. Both feature museum-quality items for sale.

Tucson has long been a mining center, but what made the Gem and Mineral Show take off in the early days was the participation of Paul E. Desautels, a curator of the Smithsonian's mineral museum, whose interest attracted other curators and collectors. Before long, the show was the gem and mineral event of the year.

The timing doesn't hurt either: the show is always in February, when Tucson has a distinct weather advantage.

"Going to shows is fun because you can learn so much about the world, and not only from the fossils and minerals," said Vanessa Galloway, a Web and graphic designer in Tucson who also has a business making and selling jewelry. "There is so much cultural history surrounding antique beads, it's really interesting."

But for most people, the shows are about buying objects that they find beautiful. And on that aspect, Ms. Galloway has a word of caution. "You can spend every penny that your credit will allow," she said. "So set a limit for yourself."

Details: Tucson Gem & Mineral Show, www.tgms.org

via West Seattle Petroglyphs, 3/07; from Rocky Trails, 3/07

Polishing Jade by Ed Hansen

Heat it up! Use polish on leather. Hold the stone with your fingers so you know it's not getting too hot.

via Breccia, 11/08; via The Tektite, 4/04; from the Pegmatite, 2/04

Cutting Slabs by Ed Hansen

Cut thin chunks of rough on the bias (diagonally) to yield larger slabs.

via Breccia, 11/08; via The Tektite, 4/04; from the Pegmatite, 2/04

BEMS General Meeting Minutes November 13, 2008

by Pete Williams, 2008 Secretary

Meeting called to order at 7:30

There were 5 guests in attendance.

Minutes were approved as written.

Tumbler Editor's Report: Members were asked to check the listing Keith has to ensure names, addresses, birthdays, and other contact information is still correct.

Webmaster's Report: Web site is doing well. Keith is entering the site in the NFMS and AFMS contests.

Treasurer's Report: Shop fees are coming in and being used to pay for maintenance. Rich is still collecting 2009 dues.

Shop Reports: Monday night lapidary classes are doing well. The shop could use donations of some brown grocery store paper bags to help with draining the oil. There are 3 new students this month in the faceting shop.

Library: Stephanie will be taking over managing the library from Charlotte. Sandy will now be managing the videos.

Federation Report: The NFMS website has a notice of next years' show in Billings, MT from 7/30-8/2. There will be several field trips the following week. The AFMS show will also be in Billings.

Field Trip Report: Bill thanked club members for the cards they sent for his mother who recently passed away. There are some upcoming rock and gem shows at the Tacoma Dome and the Seattle Center.

Mineral Council: The Department of Natural Resources (DNR) held a hearing in Issaquah that Bob attended. One of the pending regulations will prohibit anyone from picking up any material on DNR land without a permit. It is unclear how the permits would be managed and if there will be a fee. Another pending regulation is if state land is not marked open it is assumed to be closed. Bob commented that the state appears to be willing to work with the clubs for an acceptable resolution. Currently, rockhounding is not recognized as a recreational activity in this state.

South Sound Show: The show last week did very well. Although attendance was down 10-15% from last year, revenues were up by a similar amount. The show committee is still paying the bills so it is too soon to tell how much money the club will make.

Old Business: The home school field trip went well. Karen received several thank you notes from the kids.

New Business: A previous acquaintance of Norm Steele wants to donate \$30,000 of equipment to the club. The equipment needs to be picked up on Sunday.

Charlotte requested members save scrap pieces of material to make the little bags that the polished rocks were sold in at the show last weekend. One person sewed 300 bags and purchased the material herself.

The Christmas dinner will be held on Sunday 12/14. The party is a potluck and eating will begin around noon.

The club voted to hold another rock and gem show next year. This will be the 5th annual show.

Elections were held. The following will be the club officers for 2009: President-Bob Pattie, VP-Scott Burch, Treasurer-Rich Russell, and Secretary-Pete Williams

Program: The program was the election of officers.

Meeting adjourned at 8:36.

Raffle: The special, a piece of malachite, was won by Roger Pullen.

Displays:

Malcolm Wheeler - Birthday card.

Bob Swartz - Petrified wood with marcasite & agate from Cherry Creek; jasper from the same area; crystals & cabs from road fill gravel; spall from Cedar Pond road & Woodinville ditch.

Alice Swartz - Unknown slab from Austria & pictures of the South Sound Show.

Carolyn Mackey - Pictures from the South Sound Show.

Ed Laville - Smack'em rocks.

Club Christmas Party

The Christmas Party will be Sunday, December 14, in lieu of the Regular Meeting, in Room D, 12:00 noon to 4:00 pm. The club will supply Turkey, Ham, coffee & punch.

Members should bring their favorite dish & serving utensil(s) for pot luck. NOTE: Please mark any items you wish returned. Sometimes serving spoons & other items get left behind. Members should also bring plates, silverware & cups for themselves. (Unless you enjoy drinking a handful of hot coffee.)

Deadline for the January Tumbler

Because of Christmas the January Tumbler will be printed before Christmas so get any articles you want in the January Tumbler to me before December 14. The rest of the year the deadline is the 20th of the month prior, as usual.

From Atop The Rock Pile

Star Bright Star Light
Zircon shines on all tonight!
Karin and I want to thank you for letting us be a part of your lives.
As the club goes forth with Bob and Jackie taking the lead I say
HAVE FUN, LEARN A LOT AND TEACH EACH OTHER



By Malcolm Wheeler, Sr., 2008 BEMS President

Thank you to all who worked and made this fun and worthwhile.
The trip is always the funnest part in our journey .
As my term closes a new opportunity will open for us .
Happy holidays
Malcolm & Karin Wheeler Sr.

Young Richard's Almanac

 by Dick Morgan

Why is it that at the time of the year of giving & the spirit of brotherhood that peoples tend to be more belligerent in their treatment of others when they're going on their way?

Responses To The Home Schooler Field Trip

On a handmade card with a drawing of a rock on a dopstick, "Thank you for the polishing rocks. Love Elissa Essman"

In a paper airplane, "Thanks you for the rock. Bart Essman."

In a note card, "Thank you!!! Thank you for letting us come and learn all about rocks it was so fun. From: Simon, Silas, Bailey and Britta."

On an unsigned note, "Thank you".

And a hand drawn picture.



Shop Safety by Chuck McKie

It has been quite a while since we had any shop safety. The following is from chapter two of the AFMS Safety Manual.

The following safety rules, if followed, will lessen the risk of possible harm or injury. Protect your eyes when chipping or grinding rocks. **WEAR PROTECTIVE GLASSES.**

Run your grinding wheels no faster than the speed recommended by the manufacturer. Do not let your {Ceramic/stone} wheel become water logged. Keep it running until all water has been thrown out; otherwise, it will cause a heavy spot and make your wheel out of balance. Keep your wheel true. It will wear longer and there will be less chance of its parting while in use.

Keep all belt pulleys and belts covered. It may save a finger. Use dop sticks whenever possible. It may save a badly cut finger. A word of warning to those individuals who use dry sanding of their cabochons: Silicosis is a serious disease which is caused by the inhalation of fine silica dust. Use a dust mask or suction blower, or change to wet sanding. Silicosis cannot be cured!

Be careful with your alcohol lamp. It can cause a fire. Keep all containers properly labeled. Putting polishing powders in empty baking powder cans, for instance, without a proper label, can be dangerous. (If you put the polishing powder in an empty baking powder can, your wife could use it with disastrous results).

The use of Oxalic Acid, when properly used, greatly facilitates the polishing of agates. Oxalic Acid is caustic to the skin, as well as a frank poison, if accidentally ingested or inhaled. Also, getting some in the eyes from the spray from the polishing wheels, may cause a burn of the cornea, resulting in impaired eyesight. When using this acid, proper precautions must be taken.

It is advisable to apply the polish to the wheel with a brush. Wear protective glasses. It may be advisable, under certain circumstances, to wear protective gloves. Immediately wash any contact areas of the skin with soap and water. Medical attention may be advisable.

Sulfuric Acid and Nitric Acid are sometimes mixed with polishing compounds when faceting sapphire. They are also used in the polishing of sapphire cabochons on lead laps.

These acids are severe caustics and will cause severe burns if they come in contact with the skin or eyes. In using the techniques above, one must use the utmost precautions. Any contaminated areas must immediately be washed with soap and water. If any gets in the eyes, thoroughly irrigate with water and seek medical attention. The application of a baking soda pack is often advisable or the sponging with a solution of baking soda in water to the burned area.

The polishing compounds we use today are, as a rule, relatively non-toxic, except to some individual. The use of detergents added to the polishing powders could cause dermatitis of the hands. This can be eliminated if the offending substance is eliminated.

The use of Epoxy Resins is very irritating to the skin, and severe cases of dermatitis have resulted. This can easily be prevented by not getting the hands in actual contact with the resins. Acetone will remove this, if you should get some resin on the skin. The various cutting oils used in the diamond saws are primary irritants to the skin, and will, in many individuals, produce dermatitis. Also, the fire hazard, in the use of certain cutting oils, must be realized and proper precautions taken.

WARNING TO SILVER-SOLDERING ENTHUSIASTS: Silver brazing alloy, frequently called "silver solder," is an extremely valuable industrial material. It is used for joining metals and alloys such as silver, copper, brass, bronze, stainless steel, carbon steel and dissimilar metal combinations where it is necessary to perform the joining of these metals at low temperatures. Fumes generated during brazing can be a serious hazard. Brazing fluxes generate fluoride fumes when heated.

Cadmium in silver brazing alloys vaporizes when overheated and produces cadmium oxide, a highly toxic substance. If cadmium oxide fumes are inhaled into the respiratory tract, they can cause pulmonary distress, shortness of breath, and in cases of severe exposure, may cause death.

Silver brazing filler metals containing cadmium are: BAg-1, GAg-1a and BAg-2 and BAg3. Since the boiling point of Cadmium is 1412 degrees F, brazing can be carried on safely using BAg-1 and BAg-1a classes of filler metal at temperatures below 1400 degrees F. BAg-2 and BAg-3 have recommended brazing temperatures of 1295 - 1550 degrees F. and 1270 to 1500 degrees F. respectively. Brazing can be carried out - safely - using temperatures below 1400 degrees F. Since temperatures in the upper portion of these ranges can be reached, it is important to provide adequate local exhaust ventilation or, where this is not possible, individual air-supplied respirators. (This article taken from, "Working with Silver Solder", Public Health Service Publication No. 1518, U.S. Dept. of Health, Education and Welfare.)

Do not overload electrical outlets. If in doubt, have the circuits checked by an electrician.

Keep switches and motors in a dry place where the water from the grinding will not splash on them.

Be sure to have all motors and outlets grounded. In case of faulty wiring or short circuit, the ground will absorb the shock — not you! Standing on a rubber mat will give some protection. Electric shocks can cause death!

Suspicious wires lying on the floor or ground should be avoided — at home or on field trips. They may be harmless, but if they are not, beware!

When a person suffers electric shock, it is important to use a stick or other such wooden object to separate him from the source before beginning resuscitation.

via Breccia, 11/08; from CFMS Newsletter, 10/08

Around the Middle Ages it was believed that diamonds could reproduce, so they began to put two diamonds in one ring in the hopes of producing more.

Flint Knapping Basics by Mac Ellis (7th place 2003 AFMS Original Adult Article)

This is not intended to be a technical article, although it may be much more than you care to know about flint knapping. Perhaps the term flint knapping should be shortened to knapping since materials other than flint have been used in making stone tools; for example agate, petrified wood, jasper, etc. Some of the material was traded over long distances because of its excellent working qualities.

There are two primary methods of knapping: percussion and pressure flaking. Percussion involves striking the edge of the working piece with a hammer stone, antler, or in the case of many modern-day knappers, a copper billet. The purpose is to thin the piece. A thinner stone will penetrate an animal's hide more easily, and the piece can be sharpened better. Pressure flaking is the use of a tool, antler, copper rod, or similar to bring pressure on the edge of the piece being worked, resulting in smaller flakes being removed. This method is primarily used to straighten the edge of the piece or to sharpen it.

The best knapping materials all have one thing in common - when struck as in percussion, they fracture conchoidally, meaning the fractured surface is curved and (hopefully) smooth. Some material such as obsidian is much easier to work because it fractures more readily. This produces some very sharp edges, so be careful in handling this type of material.

Prehistoric knappers learned to treat some stones by heating them. Proper heat treatment will often give the material a very smooth, glossy surface and makes the stone easier to flake. Some color change may also occur. Properly heating the material may produce workable material from material that was not well suited for knapping before the heating process.

Most knapping material have amorphous or cryptocrystalline structures. The minerals from which they are formed (mostly silica), either have not formed crystals (amorphous, like opal or glass), or have formed into networks of microscopic crystals, usually not visible to the naked eye (like flint or chert). Rocks such as granite and jade are (mostly) not knappable. Obviously, materials that are flawed (those with cracks, etc.) are not suitable for knapping unless the flaws can be removed beforehand.

Safety is a constant consideration. Your eyes are vulnerable to pieces of flying stone which is traveling at a high rate of speed. So, eye protection is a must! Some knappers do not like to wear gloves. Gloves may not prevent all cuts, but they will reduce the severity of some and eliminate others. When possible, knap outside to reduce the level of dust you breathe, or use an air circulation system to blow the dust away from you. Just be aware of the potential problems and always use proper safety procedures.

Should you decide to take up flint knapping, be prepared to spend a year or more learning how to use the tools and to acquire the techniques necessary to produce a nice point. Try to locate an experienced knapper to help you before you develop too many bad habits.

If your intent is to quickly make an arrowhead and promptly go out hunting, be sure to include in your plans a stop at McDonald's on the way back home. Happy Knapping.

via Breccia, 11/08; via SCFMS Newsletter, 1&2/04; from the Stone Chipper, 2/02

Sphere-Making Tips by Dan Imel

First Tip: From a recent trip to another show, I picked up the following tip: One of their club members had told a member to use a ball chain in a loop long enough to reach into the cup of slurry below with a little sitting on the bottom.

It sits on the sphere at the front of one of the cups. As the cups rotate, so does the chain. It drags the slurry back up to the cups. Seemed to work really well but I suspected you have to wait until you have a slurry actually started. This has an advantage over machines with an automatic grit feed because it uses the grit over, not so much waste.

Second Tip: They had accidentally allowed grit to run back along the motor shaft and ruined a motor when it got into the gears. I was thinking about the problem and came up with the following solution. I love laundry detergent bottles, especially the 300 ounce size because they have a fairly large flat area you can use. Either by hand with a utility knife or using a hole saw like you'd use to install a door lock (it can be much smaller), cut three circles of plastic from the detergent bottle, one for each shaft on a three motor sphere machine, with a center hole slightly smaller than the shaft on the motors.

Remove the cups on the sphere machine. Take an O-ring that's tight on the shaft and push it on ahead of the plastic washer you've made. Leave a slight gap in front of the motor.

Place the washer on, then another o-ring to lock it in place and help seal things. No glue necessary. If the shaft is inclined so the grit runs down the shaft, the washer and o-rings will block it from getting to the motor, much like a collar on a bird feeder helps stop squirrels from climbing up to the food. The spin of the motor will prevent the grit from getting back to the shaft on the other side of the washer. This solution shouldn't affect the cooling of the motor either and, since the washer spins with the shaft, it shouldn't wear at all. The detergent bottle plastic doesn't readily degrade with use and is very durable. If you use a hole saw to cut your washers, use a block of wood as a backer for the saw to cut through to.

via Breccia, 11/08; via Shin Skinner News, 5/06; from Rock Collector, 4/06

Transparent stones should be polished on both the front and back. Otherwise, saw marks can show through and appear to be cracks.

via Breccia, 11/08; via The Tektite, 4/04; via San Diego Lapidary Society, 9/03; via the Rock Bag.

Flat Lapping Tips from Ed Reiber

My machine is a 20-inch rotary cast iron lap. I bond slab as thin as 0.030-inch to plywood using a mixture that is half beeswax and half paraffin wax. Then, for a 5-inch diameter slab, I use a minimum of a 3 lb. weight glued to the plywood.

In the preparation phase, to remove saw cuts and bumps from the slab, do not use 80 or 100 grit; start with 220. I usually spend 4 hours each with 220, 400, and 600 SiC grit, cleaning up carefully in between each step. I spend 8 hours on polishing and have found that tin oxide is the best for lapping. Put some in a bottle and shake it up before applying. I use carpet for polishing, securing it to the lap with contact cement and hitting it with a mallet.

When it comes time to remove the slab from the plywood, put it in the sun or under a 250-watt bulb. The heat will soften the wax and the slab can be removed.

To handle small slabs or split nodules, make a cylinder from 0.010-inch thick aluminum sheet, set it on a smooth surface, set agates face down in the bottom, add lead weight, add plaster, and let harden. After the plaster column is wet, remove the aluminum and cut away a bit of the plaster around the agate faces (so it wouldn't cause drag on the lap). Put inner tube around the plaster column and secure with rubber bands, then add a bumper ring.

via Breccia, 11/08; via CFMS Newsletter, 6/03

Slate Carving A Unique Hobby by Helen K. Boyer

The slate found locally in streams is too soft; it shatters. Good, hard slate is found in salvage yards where they have reclaimed roofing. Slate blackboards from old schools is best but now very rare.

TOOLS: If you have a place to work out of doors in good weather, wearing a mask and safety goggles, it is OK to use a small power tool. But if you work indoors, never use a drill. The whole house will get a coating of the oily dust. Wood carvers flat chisels are fine. Always wear a mask. The dust is bad for your lungs. Lay the slate on a towel to catch the dust you brush off your work. You do not have to be an artist.

Choose a simple subject. Trace the major lines from the photo and transfer to the stone, with a dart or stylus, scratch the lines into the slate, otherwise the dust will erase the drawing as you work. Repeatedly scratch the outlines deeper and with slate chisels, bevel a sloping area down to it. Use a damp rag to clear the dust onto the towel. Always keep hands back of the tool. A slip can make a bad gash. What you are doing is creating the illusion of three dimensions. It is called "Bas-Relief" or "Low-Relief". Look at the sculptured figures on coins to get the idea. When done, the slate will have a varied, dull, gray look. A couple of coats of wax (like Johnson's) will buff it up to a slight shine and more uniform look.

via Breccia, 11/08; via Snoopy Gems, 10/04; via Gem Rock, 2003

A Mineral That Was As Good As Gold by Homer Eshbaugh, Random Facts Curator

Once upon a time, a mineral we now consider common was "worth its weight in gold" - literally! That mineral is halite, more commonly known as salt, NaCl. It is a critical nutrient to all animal life, including humans. In fact, it is so important to survival that one of our four tastes was developed to detect it. (We can actually taste only four things: sweet, sour, bitter, and salty. Flavor, what we usually think of as taste is actually a combination of taste and aroma, i.e., what we smell.)

The phrase "not worth his salt" comes from the ancient Greek, when salt was used to pay for slaves. Roman soldiers were sometimes paid in salt. In fact, our word for monetary payment for work, "salary," comes from the Latin for salt - sal. Our word "salad" (from the Latin "saltar", meaning "salted", comes from the Roman habit of salting their fresh greens.

Today, many town names reflect their origins as sites of ancient or medieval salt mines or salt springs. "Wich" or "wyth" is the Old English word for "brine well" (what we now call a salt spring), and is seen in names like Northwich and Middlewich. The German word for salt, "Salz," appears in Salzburg (sal city), a large city located on the Salzach (meaning "saltwater" or "brine") River.

As with many precious materials, ancient lore grew around salt. It was so precious that the spilling of salt was deemed by the ancient Romans to be the work of the Devil. Salt thrown over the left shoulder (where evil lurks) was believed to drive the Devil away.

via The Quarry, 11/08; from MWF News, 11/08

Contact metamorphism is when a large underground body of magma alters the surrounding rock. This process involves high heat but low pressure. The other kinds of metamorphism are regional, and dynamic. Regional metamorphism is the most common type it involves high heat and pressure, and is associated with mountain building. Dynamic metamorphism has low heat but high pressure, and is a result of meteor impact craters.

from Golden Spike News, 11/08



No Shows This Month



It's A Matter Of Science by Greg Durocher, USGS Alaska Science Center, Earth Science Information Center - Anchorage

The following was written in response to those who write to the USGS inquiring about planetary alignments causing an increase of seismic activity on Earth.

The 'planetary influences' on Earth are exceedingly minimal compared with the moon and sun. The sun exerts ten thousand times the gravitational influence of all the planets combined - if you could line them all up at their closest points - and the moon exerts over twice the force of the sun! It has been said that the human bodies arranged around the birthing bed have far more gravitation influence on the newborn than any arrangement of planets. Gravity decreases as the square of the distance and so becomes a very tiny force at planetary distances. Thus, if any faults or volcanoes were to be triggered by gravitational tugs, it would be the lunar or solar tides that would do it.

You can do the math: The gravitational force (in newtons) between bodies can be calculated with the following formula:

$$F = ([6.6732 \times 10^{-11} \text{ newton-meters}^2/\text{kg}^2] \times M1 \times M2) / (R^2)$$

M is mass in kg

R is distance between bodies in meters

Mass of planets available at the following: <http://www.nineplanets.org/data1.html>

Distance from Earth: <http://nssdc.gsfc.nasa.gov/planetary/planetfact.html>

Scroll down for distance for each planet and multiply by 109 meters (e.g. Jupiter at its closest is 588.5 x 109 m from Earth) via West Seattle Petroglyphs, 6-7/07; from Alaska Pebble Patter, 1/-2/07

Manual car washes are good places to clean large rock specimens that are not fragile. The hard spray cleans all nooks and crannies.

via West Seattle Petroglyphs, 9/08; via Rock Rollers, 7/08; via Pick & Pack, 5/08; original source unknown



Internet Addresses

The Rock Shed
<http://therockshed.com/>

Best Crystals
<http://www.bestcrystals.com/>

Rockpick Legend Company
<http://www.erockshop.com/>

The Mineral & Gemstone Kingdom
<http://www.minerals.net/>

World of Amber
<http://www.emporia.edu/earthsci/amber/amber.htm>

Puget Sound Bonsai Association
<http://www.psba.us>

Stone Age Industries
<http://www.stoneageindustries.com/>

Rock & Gem Books
<http://www.rocksandgems.info/books/>

Mazel Tov! Jewelry Treasures
<http://www.mazeltovjewelry.com/>

