



the BEMS *Tumbler*

January
2008

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

Next Meeting:
January 10, 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 will be Diana
Horsfall about preserving your
rockhound heritage in scrapbooks

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



*This month remember
to wish a*



Happy Birthday to
Sandy Chilson on January 4,
Wesley V. Anderson on January 7,
Janet Tanaka on January 7,
Kathleen Angell on January 8,
Joan Arundell on January 10,
John Haworth on January 13,
Marion Berglund on January 16,
Mary Stickman on January 20,
Wilda McOmber on January 25,
Bob Bird on January 28



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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.
Vice President Mike Brimmage
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
Program Mike Brimmage
Refreshment Esther McKain
Membership Keith & Dick Morgan
Health & Welfare Steve Mackey
Library Charlotte Churchill
Raffle/Display Keith & Dick Morgan
Field Trip Bill Cook
Tumbler Editor Keith Alan Morgan
Webmaster Keith Alan Morgan
Shop Operations Leslie Brooks
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 **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>**

To reclaim cutting oil, use half-gallon milk cartons. Pour in the old oil, and add a small amount of water. Let the sludge settle for a few days. Then put cartons in the freezer. The water will freeze and the oil will rise to the top, and can be poured off.
via West Seattle Petroglyphs, 10/07; via Snoopy Gems, 4/07; from Hound's Howl, 4/06; via The Shin-Skinner News, 4/05; from Rock Chips, 1/04

Lichen Removal

Remove algae and lichen from your specimen by soaking it in ammonia and water.

via West Seattle Petroglyphs, 9/07; via Pegmatite, 6-7/07; via Arrowhead News, 4/07; from Rockpile, 2/07



JANUARY



SUN	MON	TUE	WED	THUR	FRI	SAT
2008		1	2 South Sound Show Committee 11 am	3	4	5
6	7 Lapidary Shop	8 Lapidary Casting Jewelry	9	10 General Meeting 	11 Faceting Class	12
13	14 Lapidary Shop	15 Lapidary Casting Jewelry	16	17	18 Faceting Class	19
20	21 Lapidary Shop	22 Homeschooler Field Trip to our shops	23	24	25 Faceting Class	26
27	28 Lapidary Shop	29 Lapidary Casting Jewelry	30	31	Hope you all have a Happy New Year!	

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

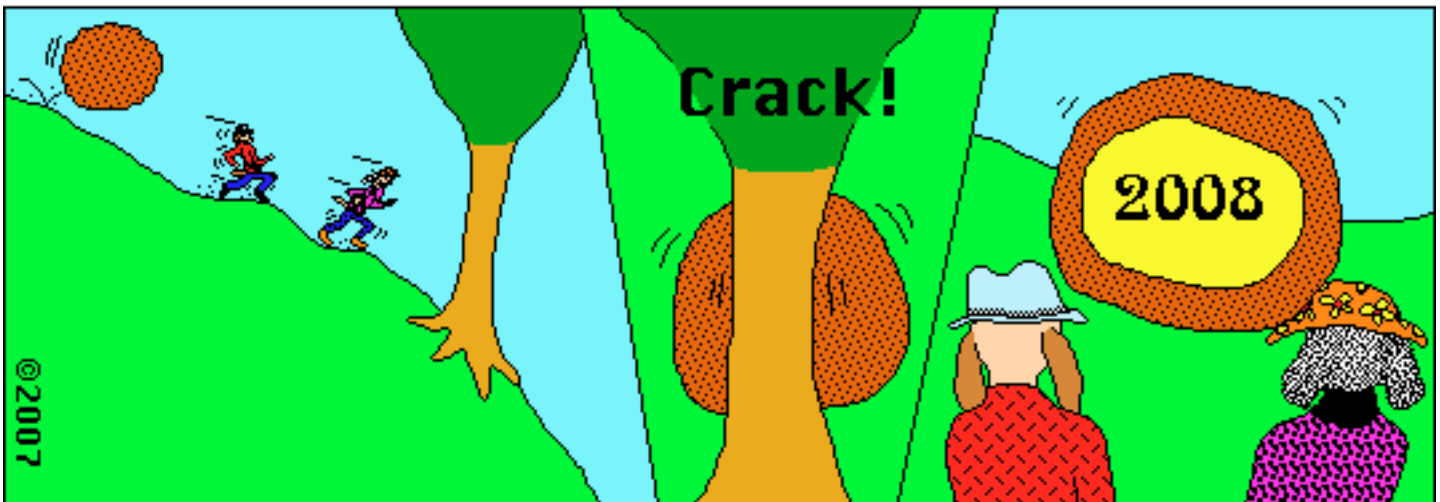
Jewelry Shop Hours:.....Tuesday.....9:00 am to 6:30 pm
 Jewelry Casting Hours:.....Tuesday.....9:00 am to 6:30 pm (Casting Information All Day)

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

South Sound Show Meeting.....January 2.....11 am
 BEMS Board Meeting:.....Canceled this month
 BEMS General Meeting:.....2nd Thursday.....7:30 pm to 10:00 pm

Mr. and Mrs. Rockhound

by KAM



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

BEMS Board Meeting Minutes December 4, 2007



by Keith Alan Morgan, 2007 Secretary

Members present

President Malcolm Wheeler, Sr.

Secretary/Editor Keith Morgan

Director Dick Morgan

Shop Operations Les Brooks

Mineral Council Bob & Jackie Pattie

Treasurer Rich Russell

Librarian Charlotte Churchill

Field Trips Bill Cook

Refreshments Esther McKain

Guests Karin Wheeler & Pat Morgan

Editor's Report: The editor said that the deadline for the January Tumbler was December 15 because it would have to be printed early because of Christmas.

It was suggested & agreed to that every member who submits an article to the Tumbler should get three tickets for the raffle.

Shop Reports: Maintenance is catching. Will be taking pictures of people qualified to use equipment. One of the 14" saws has been fixed so we now have 3 working 14" saws. Need investment for the casting shop.

Faceting class needs a rotation plan so new people can use the machines. Classes are three months, people who have been on the machines longer than that by January go to the bottom of the list so new people can learn to use the faceters.

Field Trips: January 12, the Wagonmasters will be meeting at the Rec Center to plan field trips for the upcoming year. Will need someone to watch the door. The meeting runs Noon - 4.

Health & Welfare: Steve Mackey needed two transfusions. Charlotte sent a card.

New Business: A motion to raise the mileage reimbursement to 20¢ was passed.

The time of board meetings has been changed from 9:30 am to 10 am.

Meeting adjourned at 10:45 am.

Attention!

Justina Maurer lost a topaz necklace at the Christmas party. If anyone has found it please contact Justina or Dick Morgan.

If you are a new board member please check the contact information on page 2 for errors or missing info. Thank you.

List of 2008 Board Meetings

Because the Board meeting are 9 days before the second Thursday that can create some odd scheduling so here are the dates for the Board meetings for the next year.

January - Canceled

February - February 5

March - March 4

April - April 1

May - April 29

June - June 3

July - July 1

August - August 5

September - September 2

October - September 30

November - November 4

December - December 2

Also the start time of the board meetings has been changed from 9:30 am to 10 am.

Raffle Notice

The special item in the January raffle will be a cluster of clear quartz crystals. (Clear quartz is difficult to photograph well. It is much clearer than the picture shows.)



Young Richard's Almanac by Dick Morgan



Why is it when people make resolutions for the new year they appear to have trouble keeping them? Is it because setting goals is much easier than achieving them? A shame because achieving them makes you feel so good in the long run.

Then again why do people make a big deal about resolutions at the beginning of the year instead of working on them when they have the idea?

BEMS Christmas Party December 9, 2007



by Keith Morgan, 2007 Secretary, Photos by John Carter

The meeting began at 12:23 pm, President Malcolm Wheeler presiding.

Guests & new members were introduced.

Minutes were accepted as printed in the Tumbler.

Editor's Report: Tumbler is doing fine. Some print & email Tumblers have been bounced back. Let the editor know of changes to your home or email addresses. The Deadline for the January Tumbler is December 15 because of Christmas.

Treasurer's Report: Club doing fine. Fees are keeping up with maintenance. Badges will be brought to the January meeting. Please pay dues.

Shop Reports: Dick will get plastic containers for Diamond Demon discs. Instructions for using it partly written.

Faceting shop has only three machines & one instructor & a waiting list. Starting in January the rotation for using a machine will be three months, then you go to the bottom of the list to give some other members a chance to learn. Need another faceting instructor.

Les reported that the 24 " saw needs a split nut. Most of the equipment is running fine.

Field Trips: Nothing yet. Will be hosting the Wagonmasters meeting January 12 for the planning of this year's Wagonmaster field trips.

Library: People are bringing books back.

Health & Welfare: Steve Mackey got some Get Well cards & thanked everyone. If you know of a member who is sick let Steve know.

Federation Report: Nothing going on.

Mineral Council: If you know of sites to make trips to we're hosting the Wagonmasters on January 12.

South Sound Show: We had the show & it was successful! Volunteers who helped out were asked to stand and given thank you cards, a candy cane & gift.

The club voted to have a show next year.

The next meeting of the South Sound Show committee will be January 2 at 11 am.

New Business: President Malcolm Wheeler was given a pen & pencil set & a crystal ball.

2007 officers were given tool ornaments because they make the club work.

The Meeting was adjourned & the Eating began at 1 pm.



From Atop The Rock Pile

January Is Garnet!

This is our month to step up and take charge!

We have lots to be thankful for, chances to do good and be better are all around

Lets have a powerful start to showing our talents again. I brag to all who will listen that We... WE ARE THE BEST!!!

I'll be looking to see what you bring and share and get excited every time.

2008... that sounds GREAT!



By Malcolm Wheeler, Sr., 2008 BEMS President

The Lighter Side of Dinosaur Digging by Bob Simon

Digging dinosaurs is serious business. One mistake can destroy a bone that has rested peaceably for many millions of years. Of course, it is important to have fun while enduring 100 degree heat and blazing fun. Below are a few examples of the "lighter side" of dinosaur digging in the Big Horn Basin, Wyoming.

Hare Qaeda

It is a 10 mile trip from the town of Shell to the dig site on the Red Canyon Ranch. There is a mix of paved roads, gravel roads, and then the bentonite "roads" that are really glorified cow paths. One of the "dangers" on these roads are the hundreds of rabbits that inhabit the area. Every morning the rabbits are lined up on the sides of the roads awaiting their "targets." For some reason, the rabbits only make a mad dash across the road when the vehicle is upon them. They aim for running in-between the front and rear tires in their suicidal scramble across the road. This can happen as many as 15 times during a typical morning. We believe these furry terrorists, whom we term "Hare Qaeda," are on missions to disable the vehicles or cause accidents. We haven't seen any suspicious backpacks on the critters as yet, but they may be there, only hidden in their fur. The afternoon trip back from the dig site often shows the results of the "road trips". Dear rabbit remains litter the roads, evidence of failed missions and many vehicles having fended off these tiny terrorists.

Better to be lucky than smart

One day, I spent about 6 hours pedestalling around the bones of the Camarasaurus. This is very tedious, boring work. It is necessary to dig around the bones and dig deep, to elevate the bones above the surrounding rock to be able to get a firm plaster jacket around the bones for protection. Usually, this is just digging and digging with little or no hope of finding any additional bones. This day, I gave 3 of my volunteers a reprieve from the mundane work of pedestalling and they dug in the bone bed looking for isolated bones and teeth. Near the end of the day, I finished my task and decided to try my luck in the bone bed. That day, only a few bone pieces had been found and the volunteers were grumbling. I picked up a pry bar (a 6-foot length of heavy steel with a sharp point on one end) and decided to pound into the hard ground to see if anything might turn up. The first pry bar stab stopped me in my tracks. I had unearthed a beautiful and extremely rare, 4-inch Torvosaurus tooth (meat-eating dinosaur). My volunteers came over and muttered something about "not fair... how did you know?... wow!" Sometimes it is better to be lucky than smart or good.

Odd discoveries

Often, dinosaur bones that need to be excavated, are very close to one another and need to be broken (hopefully at preexisting fractures) for proper removal. One of the back legs of the Camarasaurus found this summer proved to be a difficult extraction. The 5-foot femur was on top of the fibula (lower leg bone). The tibia was carefully removed intact while the fibula had to be broken in order to be able to remove the overlying femur that weighed over 400 lbs. Eventually, the femur was jacketed and then flipped over using the brute force of the track hoe and volunteers. To lighten the load of the plaster jacket containing the femur, I began digging as much matrix as possible away from the femur. In a few moments, I apparently found another bone that had not been seen under the femur. I carefully began exposing this bone until I saw something that I recognized. Low and behold, the new bone had a label with a number on it. Realizing that dinosaur bones that have been buried for 145 million years are not "pre-labeled," it was obvious that the new bone was a part of the fibula that had been labeled prior to removing the other sections. The mystery bone was no mystery at all, simply a forgotten piece of the Camarasaurus puzzle. This is one of the reasons all bones and bone sections need to be properly marked and documented in the ground prior to being removed.

via Breccia, 11/07; from The Collecting Bag, 10/07

The Cabochon Cut by J. Daniel Williams

The word cabochon comes from the French "en cabochon" meaning "like a bald head". The similarity of a bald, shining pate to the rounded top of a gemstone is quite apparent. In cabochon cuts the curving of the upper surface is commonly convex and varies from curves that are nearly flat to those which are very high. The widest portion of the gem is called the girdle; that portion above the girdle is the top; that portion below, if there is any, is the bottom or back. All cabochons must be polished all over the top. However, some materials are markedly enhanced in their beauty if the back is likewise given a polish. In general, that applies to all translucent cabochons, especially the harder ones. Also, polishing the back will help to protect the stone from absorbing body oils, etc.

via West Seattle Petroglyphs, 11-12/07; via Pebbles, 4/07; from Rocky Trails 1/06

Careers In Geology

I'm sure many of you out there want to be a geologist when you grow up. But, how much do you really know about geologists? For a geologist, the whole Earth is an laboratory full of opportunities to observe the Earth processes in action. In February 1992, Money magazine ranked Geologist second overall out of 100 best occupations and was in the top nine for Jobs that satisfy. Many geologists work for the federal or state government, many are also self-employed. Geology can be a very rewarding career. In fact in 1991 about 85,000 geologists were working in the United States alone, according to the AGI geoscientific employment and hiring survey.

Geologists often specialize in one of many areas. Here is a list of some of the areas, and a description of what they do.

Geologists by themselves study the physical nature, materials, products, processes and history of the Earth.

Mineralogists study mineral composition, formation, and properties.

Soil scientists study soils and their properties to determine how to sustain agricultural productivity and detect and remediate contaminated soils.

Sedimentologists study sedimentary rocks and the processes of sediment formation, distribution, nature, and alteration of sediments. Oil, gas, coal, and many mineral deposits occur in such sediments.

Volcanologists investigate volcanoes and volcanic phenomena to predict eruptions and understand these natural hazards.

Seismologists study the location and force of earthquakes and analyze the behavior of earthquake waves to interpret the structure of the Earth.

Hydrogeologists study the occurrence, abundance, distribution and quality of ground waters and related geologic aspects of surface waters.

Hydrologist is concerned with water from the moment of precipitation until it evaporates, or joins the ocean.

Glacial geologists study the movement and physical properties of glaciers and ice sheets.

Marine geologists investigate the ocean-floor and continent boundaries, they also study ocean basins and continental shelves.

Stratigraphers investigate the time and space relationships of rocks, especially the mineral and fossil content of layered rocks.

Structural geologists analyze Earth's forces by studying fracturing, folding, and deformation that has occurred in the Earth's crust.

Engineering geologists apply geological data, techniques, and principles to study rock, soil surficial materials, and ground water. They also investigate geologic factors that affect structures like bridges, buildings, and dams.

Environmental geologists work to solve problems with pollution, waste disposal, urban development, and hazards such as flooding and erosion. They also study the interaction between the different spheres and human activities.

via West Seattle Petroglyphs, 6-7/07; from Golden Spike, 4/07

Tumbling Rocks by Wayne Brunson

Tumbling is a way to turn a small rock into a gem. Not every rock will take a polish. Rocks softer than 6 can be polished by tumbling them with a medium such as plastic pellets, black walnut hulls, wheat or rice hulls. This medium prevents the stones from banging together.

All the stones in a batch should be near the same hardness. For instance, Obsidian and Apache Tears should not be tumbled with agate and hard jasper. They should be tumbled separately with medium after coarse grit. All jaspers are not the same hardness. Softer stones can be polished by tumbling with a medium, like the obsidian above. Often I will put softer jasper into a batch of harder stones all the way through polish - then remove those not polished and tumble them themselves with medium for 5-7 days.

I usually tumble 8 - 10 pounds of rough stones in a 12 lb. barrel with a tablespoon (Tbsp) of really rough grit per pound of rocks. If rocks are really rough 54 grit should be used instead of the 60-90. Add water just to cover rocks. After 7 days it may be necessary to remove some water to lower the level to the surface of rocks. Then add 1 Tbsp. of medium grit, 220, per pound of rocks. Tumble for seven days. Remove water again to just cover surface rocks. Add 1 Tbsp. fine grit (400) per pound of rocks. You are probably down to 6 or 7 lbs. of rocks at this stage - hence 6 or 7 tbsp of grit. Tumble seven days.

After fine grit, all grit should be drained and the stones washed until all grit is completely gone. Put the clean stones back into the barrel, add polish. Tin Oxide, Iron oxide, Tripoli can be used as well as others that are available. One Tbsp per pound of stones, probably 5 - 6 Tbsp of polish can be used at this time. Add water to cover rocks. Tumble seven days. You are done. All those rocks are now polished and shiney. If some are not as shiney as they should be, this means they are softer. Remove these and save them up until you get a smaller barrel full and rerun them through polishing. If they still don't shine, forget them, they are not gonna shine.

You will notice that this method flies against all you have been taught about tumbling. I do not wash up and clean between the first three grits. The reason for this is that corundum grits use themselves up in the process of tumbling for seven days. If you don't believe it, try it yourself. It saves a lot of extra cleanup.

via West Seattle Petroglyphs, 10/07; from Carny Hound, 8/07

What's A Concretion? by Ed Peterson,

The question has bothered me for years. What some have called a concretion doesn't fit what I've understood to be a concretion. The *Glossary of Geology and Related Sciences* defines a concretion as "a nodular or irregular concentration of certain authigenic constituents or sedimentary rocks and tuffs; developed by the localized deposition of material from solution, generally about a central nucleus." I think a lawyer must have written this. So, I looked up the word authigenic. "Authigenic... applied to those constituents that came into existence with or after the formation of the rock of which they constitute a part; e.g., the primary and secondary minerals of igneous rocks, and the cements of sedimentary rocks." Okay, according to my new understanding, a concretion is a rock formed from local material, generally formed around an object and resulting from mineral around it precipitating out of solution. But this still doesn't fit some of the objects called concretions, at least for me.

So I looked elsewhere for a definition. A web site defines concretions as compact, often rounded, accumulations of mineral matter that form inside a sedimentary rock such as shale and sandstone or in soil. I can picture this so I rather like this definition, but what about the "central nucleus"? What about "localized deposition"? Are geodes and thunder eggs concretions as some sources say?

Paul Garvin, in his book *Iowa's Minerals*, defines a concretion somewhat differently. "A concretion is a more or less spherical mass (although it may take a more irregular shape) of mineral matter that appears to have grown outward from a center. Sometimes the center is defined by a nucleus of different material, such as a fossil or grain of sediment. Concretions grow by cementing the sediment of the enclosing rock or by replacing it. They may form in sandstone, shale, or limestone and may be composed of calcite, quartz, pyrite, gypsum, barite, or other minerals." If geodes and thunder eggs are concretions, then how do they fit this definition?

What about thunder eggs? From <www.austmus.gov.au/geoscience/earth/concretions.htm> "Thunder eggs are spherical objects which form in some types of silica rich volcanic rocks." Trapped steam and gases were trapped in the lava and expanded. Silica and feldspars crystallized around the bubble. Minerals filled the bubbles with a radiating structure called spherulites. Internal gas pressure forced the spherulites apart forming a central hollow chamber that filled with minerals. Different minerals in solution seeped in and solidified forming the interesting patterns. This sort of fits Galvin's definition of a concretion.

Concretions vary a lot. They range from tiny objects to objects 10 feet or more in diameter. They are usually spherical or disk-shaped and are often embedded in a host rock. Some types of concretions.

Hollow concretions: Hollow concretions have an empty center that may be filled with powdery clay or sand. Sometimes they have a hard lump or nut inside that rattles when the concretion is shaken.

Box concretions: These are typically ironstone concretion. These are formed when ground water dissolves iron compounds from the inner portion of a block and then deposits the iron compounds again as insoluble iron oxide in the outer parts. See the above website for a more complete explanation. These actually look like a container with iron oxide forming the outer edges of the box.

Pumpkin Patch concretions: These are found in the Colorado Desert in southeastern California. These concretions resemble pumpkins in shape, size, and distribution, and are found throughout an area near Anza Borrego State Park. They are globular masses made of sandstone.

Theodore Roosevelt National Park Concretions: These are huge red concretions up to 10 feet in diameter containing iron, carbonate, and silica minerals.

Kettle Point Concretions: These are found along Lake Huron at Kettle Point in southern Ontario. They range from one to five feet in diameter and resemble the bottom of a kettle.

Pisolite or pisolitic concretions: These are pea shape spheres where a grain of some kind forms a nucleus.

Oolite: A mass of very small concretions. The masses are smaller than those of pisolite.

Blueberry Concretions: These are BB-size hematite spheres, grey-blue in color, found on Mars. (What does this suggest about water being at least formerly on Mars?)

There are also mudstone concretions, sandstone concretions, and Septarian Concretions.

Note: I still have trouble with the explanation for the formation of Geodes when it comes to applying this to oil geodes, especially to those having the oil inside pressured.

via Breccia, 11/07; via Gem Cutters News, 9/07; from Rock-Talk, 1/07

Safety In The Shop by Larissa Williams

Keep long hair tied back.

Wear safety glasses at all times when machinery is on.

Do Not reach near motors, belt or pulleys while they're going.

If a stone slips out of your hand, or comes off the dop stick, turn the machine off and wait until it stops turning before you retrieve the stone.

Never use grinding machines without water. Do not grind the stone dry!

Always hold the stone, or the dop stick, firmly. The rotation speed of a grinding wheel or flat-lap can pull a stone or dop stick out of your hand if held loosely.

Do not allow waste water from grinding to drain into a sink. It can harden like cement, eventually closing off the pipe.

Allow it to accumulate in a bucket and dispose of it safely.

via Rock Rollers, 2/07; from The Opal Express, 1/98

Sun Exposure: Changes Through Time by Don Monroe, AFMS Safety Chair

A few things that we consider as safety issues have actually changed but not very many. Most hazards remain constant and are still bad for you but our attitude and our knowledge about sun exposure has really changed over time.

When I was young (no snide comments please) I remember the social implications of having a sun tan. Men were regarded as “red necks” if they had a tan face and hands but were whiter over the rest of their body. Women who had a tanned complexion were thought of as farm women or farm workers and were thought to be of a lower socio-economic class. Many of the girls from the “city” were extremely careful about exposure to sunlight.

All of these attitudes changed in the mid-1900’s when it became stylish to have a “tan”. The health effects of sun exposure and the positive aspects of Vitamin D created emphasis on the tanned appearance. Everyone wanted a “tan” and we all got one and tried to keep one.

Well, now we are paying for those tans as the pendulum swings back toward sun protection. I won’t say that skin cancer is rampant but it is a major concern particularly for the fair skinned. It was not very long ago when a popular money-making scheme was to own a tanning studio or sell tanning beds for home use. Now I see many more advertisements for sun creams, sprays and other forms of protection from the sun.

Until recently, I did not know what SPF meant and how sun protection were rated. A very tiny little black speck which turned out to be a melanoma absolutely changed my life and now I am seeing many of my friends learn the same hard lessons. I am not in the medical profession but I will share with you some thoughts that I share with my children and grandchildren.

1. Visit a dermatologist on a regular basis, more often if you have a fair complexion.
2. Minimize your sun exposure. I simply am afraid to stay out in the sun because it is not worth the risk. Dress sensibly wearing hats, sun glasses, long sleeved shirts and light colored clothing outside.
3. Use an appropriate sun screen following your physician’s advice.
4. Try to convince the younger generations that it is not “macho” to fry in the sun.
5. Don’t forget the little children or grandchildren. I have been told that sun damage is a cumulative thing and we do not want the kids to start too young.

from AFMS Newsletter, 10/07

A large measure of the enjoyment of our hobby consists of collecting in the field. For that reason, the members are proud to endorse the following:

“Code of Ethics”

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the “Golden Rule”, will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

Revised July 7, 1999 at the AFMS Annual Meeting

from the AFMS Website (<http://www.amfed.org>) 12/17/07



No Shows in Washington, but for those members who go to Quartzsite, Arizona...

January 1 - 31

Desert Gardens

South of I-15 at Exit 17

Quartzsite, Arizona

January 4 - 13

Tyson Wells Rock & Gem Show

Southwest corner of I-15 & Hwy. 95

Quartzsite, Arizona

January 23 - 27: Wednesday - Sunday 9 am - 5 pm

42nd Annual Q.I.A. Pow Wow

Q.I.A. Building & grounds

235 E. Ironwood Drive

Quartzsite, Arizona



Internet Addresses

If you're interested in learning about gemology from a scientific (rather than a commercial or artistic) viewpoint, then you might enjoy this website. Included there is a series of lessons developed by Barbara Smigel, PhD, GG, and Emeritus Professor at the College of Southern Nevada. You don't need to register to use the materials contained on the site, however you can opt to register and take the full distance learning, online course for college credit. Web Lectures include the following lessons:

Lesson 1: Basic Terms

Lesson 2: Naming and Measuring Gems

Lesson 3: Physical Properties of Gems

Lesson 4: Optical Properties of Gems

Lesson 5: Magnification and What it Reveals

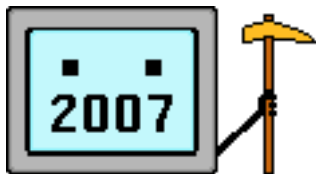
Lesson 6: Optical Phenomena in Gemstones

Lesson 7: Gem Fashioning

Lesson 8: Gem Enhancement

Lesson 9: Synthetics and Simulants

Lesson 10: Gem Formation



Also included on the site are Web Essays - one-topic, pictorial essays that enrich the web lecture for each lesson and include information on specific rocks and minerals. You can follow a link to "Ask the Teacher" specific questions and actually receive an answer in response. There's also an audio pronunciation guide, an A-Z Survey of Gemstones downloadable as a PowerPoint presentation, and suggested textbooks and reading assignments if you're interested in learning more.

Simply visit <http://www.bwsmigel.info/>

via Breccia, 11/07; via Salinas Valley Rock and Gem Club Newsletter, 7-8/07; from Rambling, 7/07

Mineral World

<http://www.scratchpatch.com>

from West Seattle Petroglyphs, 11-12/07

Making Cabochons/Wire Wrapping Cabochons/Making Silver Bezel Cabochon Jewelry

<http://www.infinitystonesandmetals.com/>