

# WASHINGTON AGATE & MINERAL SOCIETY NEWSLETTER

Volume XIII ISSUE 12

DECEMBER 2011

OLYMPIA WA

WEBSITE: [HTTP://WWW.WAMSOLYMPIA.WORDPRESS.COM](http://www.wamsolympia.wordpress.com)

## REFRESHMENT LIST:

**DECEMBER - CHRISTMAS PARTY (BYOT) Everyone brings their favorite holiday treat and/or drink.**

**So, come with your Christmas favorites to share with other members. As is our custom, please bring one gift--doesn't have to be rock related--to our Christmas meeting. You can wrap it nicely or just put it in a sealed paper bag. If it's specifically for a man, a young girl, etc, please write that on the outside. Like our silent auction, each person will write their name under one present. When the bell goes off, you get the present that has your name under it. Of course, the most fun of the evening is not having any business to discuss.**

### BUY...SELL...TRADE

*This column is offered free to WAMS members to buy, sell or trade equipment or material reasonably related to rocks or minerals.*

## Is your name here?

The following people have paid dues for 2012:

Ben Spengler  
MJ Huetter  
Glasgow family  
Tolbert family  
Keith Greetham  
Jim & Cherry Pedrick  
Charley Price  
Leann Caranci  
Nelda Cissell  
Bob & Kathleen Hansson  
Jim Thomas  
Eleanor Miller  
Beam family

Chuck & Becky Holmquist  
Jerry Sprengel  
Ellie Hunt  
Jerry & Shirley Rheault  
Albert Bachman

If your name is not on the list, you've got until the next newsletter to pay. **Dues haven't changed--\$10 per household if the newsletter is mailed or \$5 per household if sent by email. Along with the club newsletter, your dues entitled you to receive the monthly Northwest Federation Newsletter.**

## TREASURY REPORT:

We have \$4543.56 in checking, along with our 20 tables and a sizable rock inventory for future sales. Payments for 2012 have been subtracted: \$325 for church, \$350 for insurance, \$121 for NFMS dues and \$24.75 for Mineral Council dues..

## ANCIENT GOLD PLACER DEPOSITS

Mountain ranges come and go. Mountains are inexorably destroyed by erosion and by chemical reaction when exposed to atmospheric effects. Evidence of ancient ranges is out there to find. Some ranges have left features in place, to be seen by the careful eye. Others have been reduced to rubble and scattered by our planet's hostile surface environment. In southwest Washington, features of an epoch of volcano-building about 50 million years ago can be seen by careful observation. (Our modern peaks, including MT St. Helens, were uplifted or otherwise produced in the most recent several million years.)

Of particular interest here are the mountains existing in early Tertiary times (or early cenozoic, to 60 million years ago). On North America's west coast (for example), rock of these mountains was decomposed, swept away, and re-deposited to the extent that little was left in the mountains' place. Only the most chemically resistant and physically durable minerals survived the trip. Gold has both characteristics. In California and Chile, gold was carried from the mountains by run-off, to be dropped at river bars. Later, other geological activities would bury the bars, thereby preserving them and their new mountain-building activities. This opened some of the ancient deposits, exposing them again to the atmosphere. Gold was washed from these placers to become mixed with newer gold being eroded from lodes in more modern mountains. Gold at Sutter's Mill had such origins.

## LOCAL FIELD TRIPS (PUB. WSMC)

CMS, WMSC = Cascade Mineral Society. Brian Williams (206) 290-2312 email [bwaters2011@gmail.com](mailto:bwaters2011@gmail.com)  
 Ed L = Ed Lehman (425) 334-6282 [wsmced@hotmail.com](mailto:wsmced@hotmail.com)  
 WSMC = Washington State Mineral Council, use Ed above.  
 BC Wagon masters: Clair Belzer 604-946-8656  
 Kit = Kitsap Rock club: Tony Schackmann 360-372-2777  
 Maple = Maplewood club: Don Furey 425-348-4827  
 Msvl = Marysville club: Christina Morrissey 425-398-1300  
 Mt. Baker club: Kris Menger 360-366-0576 [kmenter@comcast.net](mailto:kmenter@comcast.net)  
 East King = East King Co, Norma Kickett, 206-612-3113  
 N.W.R. = NW Rockies & MT Baker clubs: Kathy Earnst 360-856-0588 or Ed Lehman 425-334-6282  
 Pvgm = Puyallup Rock Club Tony Johnson 253-863-9238  
 Bellv = Bellevue, Bruce Himko, 425-957-1284  
 Skagit = Skagit Rock Club: Vi Jones 360-424-8340  
 Pebb = Whidbey Pebble Pushers: Dick Edwards 360-579-2807  
 Pow Wow club = Cliff Matteson (253) 475-8433  
[cliff.conniematteson@gmail.com](mailto:cliff.conniematteson@gmail.com)  
 Longview = Longview club Emmett Johnson 360-636-3491  
 Ashwood Oregon Darrell Friend 541-489-3252, web page [www.ashwoodrockstock.com](http://www.ashwoodrockstock.com)  
 Eking = East King Norma Kickett, [kev1123@hotmail.com](mailto:kev1123@hotmail.com)  
 WAC - Washington Agate Club  
 Yak = Yakima Rock Club Bill Snell 509-933-2093  
 Whidb = Whidbey Rock Clubs Dick Edwards 360-579-2807  
 BELL = Bellingham Rock Club Brian Hughes 360-671-7330  
 EVR = Everett Rock Club Bob Johnson 425-408-0849  
 NID = North Idaho Diane Rose 208-667-8591  
 PVGM = Puyallup Valley Tony Johnson 253-863-9238  
 Elb = Ellensburg Rock Dave Master (509) 925-3827  
 WAMS = Wa Agate & Mineral Club. Mike Messenger. 360-561-6379 [mmessenger@comcast.net](mailto:mmessenger@comcast.net)  
 Boe = Boeing Rock club Erik Chilson 360-825-3138  
 Swms = SWest WA Mineral Society Dave Roth 360-295-3567  
 W Sea = West Seattle Rock Club Brian Waters 206-290-2312  
 Always call the club rep to confirm all trip data. 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. Pow Wow requires membership \$3 each a year. WSMC 6100 Road trip rider fee is \$8 to help offset the \$65 vehicle access permit we must purchase. Some trips have no charge.

**UPCOMING SHOWS: 2011 NONE**

**FIELD TRIPS: 2011 NONE**

## CHEMISTRY OR CRYSTAL SIZE

**A look at what accounts for the distinctive bonding in malachite and rhodochrosite.**

Few opaque gem materials are as well known today as in malachite. Its swirling and undulating patterns in concentric bands of light and dark green and nearly black are wonderfully complex and attractive. The layers that make up these circular designs may be paper thin or quite thick, so that describing the material as opaque is taking a

bit of liberty; if cut thin enough, most and possibly all it is actual translucent.

Beauty alone, however, does not account for malachite's fame. No doubt the extraordinary volume of gemmy material that has long been entering the market has also played a role in popularizing this stone.

Malachite owes its lovely natural designs to the fact that it forms in mammillary or stalactic (and, yes, also stalagmitic) growths. When cut through horizontally, these forms reveal cyclic variations of light, medium, dark, medium, and back to light green layers, deposited from copper-bearing waters.

Because of its opacity, its softness, and the flamboyance of its elegant patterns, malachite lends itself best to being shaped into rounded forms, especially cabochons and beads, along with eggs, bowls, boxes, and small carvings are other common treatments.

CARBONATES: Malachite is commonly referred to as a *basic* carbonate of copper. Rhodochrosite is even a more simpler compound than malachite: just manganese carbonate with no hydroxyl.

In declaring it simple, we are referring to its "ideal" composition, for few minerals ever approach being pure. Minerals such as malachite and rhodochrosite crystallize from water below ground, water that contains not only a lot of dissolved copper or manganese, but carries other metals in it as well, such as calcium, iron, and magnesium. Under certain circumstances, any or all of these other metals may substitute for some of the manganese in rhodochrosite, and these amounts may vary irregularly.

The most dramatic specimens, are those that appear as slices, sections cut across the vertical growths to show off the intriguing patterns of concentric rings. If two or more large "fingers" of rhodochrosite have grown side by side or even coalesced, the multiple sections may be even more interesting.

Naturally these cross sections would not be as interesting or as beautiful if they were uniformly colored. Fortunately, like malachite, they commonly are banded in sharply defined layers. Rhodochrosite's bands range in color from rose red to various shades of pink to cream and near-white.

Siderite, an iron carbonate, occurs with the rhodochrosite in Argentina. Sometimes it forms very late in the growth history as a concentric outer layer in the finger-like growths. In other instances, it acts as a cementing material for breccia composed of angular rhodochrosite and siderite fragments.

WHAT CHANGED? There are two likely causes for the variations of color in concentrically banded minerals such as malachite and rhodochrosite: either changes in crystal size or changes in chemistry.

Malachite tends to show little variation in its composition. Other metals seldom substitute for copper in malachite. Having ruled out chemistry, we must explain the abrupt changes from dark, nearly black, to medium to light green in adjacent bands in malachite as due to the fact that the *individual crystals, though all microscopic, are nonetheless of different sizes.*

## INTERNET ROCK SITES

1. [www.orerockon.com](http://www.orerockon.com) - Pacific NW field trips, equip buy/sell, misc.
2. [www.wrightsrockshop.com](http://www.wrightsrockshop.com) Has everything.
3. [www.agateswithinclusions.com](http://www.agateswithinclusions.com). The name sums it up.
4. [www.geocities.com/Yosemite/Forest/2031/](http://www.geocities.com/Yosemite/Forest/2031/) . Terry's Oregon Rock Page has info on Oregon collecting.
5. Information on collecting in Eastern Oregon during the Madras Pow Wow: Write Eula Dillard, 145 E. 179th, Spanaway WA 98387 or call 253-847-2755.
6. [www.wyodonor.org](http://www.wyodonor.org) and [www.thermopywy.net/bhbf](http://www.thermopywy.net/bhbf) for dinosaur excavation trips.
7. <http://mineral.galleries.com/minerals/byname.htm>  
Part of Amethyst Galleries, Inc.'s web site, this is a listing of all the minerals in that company's (extremely extensive) database. More than a mere list, however, each entry is linked to its own page, giving info. such as the mineral's chemical composition, history, physical characteristics, and so on.
8. <http://www.goodearth.com/virtcave.html> The virtual cave site offers a directory of all caves in the US that are open to the public.
9. <http://www.luckystrickemine.com> Info from Prineville, OR rock dig site.
10. <http://www.the.gemshop.com>. The Gem Shop in Cedarburg, Wisconsin hold claims to central Oregon rock sites.
11. [www.rockhounds.com](http://www.rockhounds.com) This is a great site! Every aspect of rockhounding is addressed or it gives you a link.
12. [www.stonetrails.com/ORlocs/ORlocs.htm](http://www.stonetrails.com/ORlocs/ORlocs.htm) Oregon rock sites Replace OR with WA...you'll get Washington sites.
13. <http://www.kinglseynorth.com>. **Buy grit in bulk.**
14. [www.fs.fed.us/](http://www.fs.fed.us/) - Fees and required permits for access to Federal lands.
15. General interest sites: [www.rockhounds.com](http://www.rockhounds.com), [www.fireagate.com](http://www.fireagate.com), [www.awesomegems.com](http://www.awesomegems.com)
16. Be sure to go to our website (See top of Page 1). There are numerous links to other sites.
17. WEBSITES FOR DINO LOVERS  
<http://dsc.discovery.com> Look for games and videos  
<http://www.paleoportal.org>  
<http://www.msnbc.msn.com> Look for technology and science.  
<http://www.geo.ucalgary.ca>  
<http://www.scienceschoolhouse.com>
18. <http://www.jescoproducts.com> **Buy grit in bulk**

### OFFICIAL BLM REGULATIONS REGARDING COLLECTING:

You can collect a reasonable amount of rocks and minerals from BLM lands, but a permit or fee may be needed if you exceed certain amounts as described below. Note that the collecting limits for petrified wood are slightly different.

#### A REASONABLE DAILY COLLECTING AMOUNT

*No BLM permit or fee required.*

- fits in a car trunk or is a partial pickup truck load and,

- weighs less than 250 pounds  
- and the material is not for commercial use.

(For petrified wood see below)

#### MORE THAN A REASONABLE DAILY AMOUNT

*Requires a permit and fee from BLM.*

- is a full pickup truck load or,  
- involves more than one trip (or partial load) and,  
- weighs more than 250 pounds  
- or the material is for commercial use,  
- or explosives or power equipment is used.

#### PETRIFIED WOOD:

Collecting petrified wood is free up to 25 pounds per day, plus one piece, but no more than 250 pounds per year. Pooling of quotas among two or more people to obtain pieces over 250 pounds is prohibited. A permit is needed for amounts over these limits.

### AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES

#### 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 and rules governing collection on private 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 materials in collection areas.

I will cause no willful damage to property of any kind, such as fences, signs, building, 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 materials--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 damage to collecting material and will take home only what I can reasonably use.

I will support the Rockhound Project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless or how found. I will cooperate with Field Trip Leaders and those in designated authority in all collection areas.

## WASHINGTON AGATE & MINERAL SOCIETY

**WAMS meets the first Tuesday of each month, 7:00 p.m., at the First Baptist Church of Lacey, 4702 22nd (corner of College St. and 22nd)**

### Officers:

PRES Charley Price  
VICE-PRES. Keith Greetham  
ACT SEC: M. J. Huetter 459-8121  
TREASURER: M. J. Huetter 459-8121  
NW FED REP:  
MINRL CNCL :

### COMMITTEE CHAIRS:

PROGRAMS: Charley Price  
SILENT AUC: Mike Tanaka 455-4607  
ROCK SHOW Dan DeBoer 866-3940  
NEWSLETTER: M. J. Huetter 459-8121

WEB SITE: Charley Price  
JR PROGRAM: Greg Tolbert

### NEWSLETTER STAFF:

Printing & Mailing  
M. J. Huetter 459-8121

The Washington Agate & Mineral Society Newsletter is printed and distributed monthly. Material may be reprinted if properly credited. Deadline is the 20th of each month.

### RETURN ADDRESS:

WASHINGTON AGATE & MINERAL SOCIETY  
P O BOX 2553  
OLYMPIA WA 98507

## MINUTES NOVEMBER 1, 2011

Boxscore: 16 adults/2 juniors  
Called to order by president Charley Price.

### Show and tell:

Charley – Montana jasper and agate  
Bob – Grays River WA: carbonized wood and quartz crystal  
Kathleen – Pretty rocks from Grays River.  
Jerry – Big honkin' agates.  
Keith – crystals, Herkimer diamond, amethyst  
Jamie & Evan – agates from Liberty, petrified wood Oregon, wire wrapping.  
Jim & Cherry – rocks from garden, beach, and Eastern WA.  
Leann – Tumbled rocks in glass block for display.  
Zoe – logged area near Mt St Helens, geodes.  
Doug – all kinds of rocks from central Oregon, pyrite cubes, Lilly Pad jasper.  
Ellie (guest and new member) - rocks from great aunt.  
Chuck – quartz and granite from recent trip to CA.

Charley laid down ground rules for upcoming December Christmas party.

Eleanor Miller thanked the whole club for all the work they did to sell off all of her and Chuck's rock collection. She also donated some partial cabs.

Tom Argetes was removed as a signer on the Twin Star checking account. In the past he was the treasurer, but has not been a member for many years. The bank required that the club pass a motion and record it in the minutes.

Keith Greetham was elected Vice president.

Charley, as club website manager, said he will add links to other members' websites.

The evening program was given by M.J. He covered tumbling in the 21<sup>st</sup> Century.

Submitted by  
M J Huetter, Secretary

### MAIL TO: