

Place: Arden  
Community Club  
Hall Rd  
Arden, WA



Time: 7:00 PM  
Third Tuesday  
Each Month  
(Jan.-Dec.)

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## The Panorama Prospector

### September 2013

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[Steve Fox Talks about Rockhounding]

### Minutes of the Meeting August 20<sup>th</sup>

*Joe Barreca and Luci Bristow*

There was not much of a meeting but President Bruce Hurley took a poll on who would want to go on a rockhounding trip to Mica Mountain or to Clarkia Bowl, both in Idaho. There was little or no interest in either one. Another possible group trip discussed was to a selenite gypsum site near Chesaw. People were not interested in that trip either. I told you it wasn't much of a meeting.



[Bruce Hurley, our intrepid president.]

### Annual Potluck Meeting

*By Joe Barreca*



[Club members listen to Steve Fox.]

The Panorama Gem and Mineral Club's annual BBQ and potluck was very well attended and enjoyed. There were plenty of dishes of all kinds to choose from and Bill Allen supplied all the hamburgers and hot dogs we could handle. It was another beautiful night and even the bugs held off.

An added bonus was that Steve Fox was up visiting from Arizona. He told us that the rockhounding season doesn't really start down there until much later in the Fall. Right now is their rainy season, and you don't want to be caught out in those gullies during a flash flood.

Pretty soon Bob Bristow joined in with stories of adventures in the agate beds of Burro Creek and other locales. To add to the fun, Brian Martell supplied a lot of interesting rocks that members tried to win by guessing numbers that Becky Dobbs picked out of thin air.

After that we traded rocks from the tailgates of our vehicles until it got to be too dark for that. In short, it was a just about perfect event.

# National Fossil Day



This October 9<sup>th</sup>-14<sup>th</sup>, Stonerose is hosting its 3rd Annual National Fossil Day (NFD) event. The program will include painting a geologic timeline on part of Kean Street, scientific presentations, and fun hands on activities designed by the scientists. **Everyone is welcome to attend the special events free of charge.** Schools and colleges from around the state have been invited to take part in celebrating NFD at Stonerose. To find the schedule, location, and times of events please visit our [calendar page](#).

Scientists will be arriving Wednesday October 9<sup>th</sup> and staying throughout the event. Our goal is to promote and enhance science education in order to broaden public knowledge and allow casual networking with the scientific community. As you can see by the lineup below, the scientists are coming from around the nation, and will be presenting on diverse topics

- **Dr. Bruce Archibald**, paleoentomologist – Simon Fraser University  
\*Republic Fossil Insects: current research
- **Dr. Rolf Mathews**, paleobotanist – Simon Fraser University  
\*The Quilchena Fossil Site: Good things in a small package
- **Dr. Melanie DeVore**, paleobotanist – Georgia College and State University  
\*She Sells Sea Shells by the Sea Shore and more: why Ammonites “twist” our imagination  
\*Why drop your Leaves? What Republic

fossils tell us about the origin of temperate trees

- **Dr. Deborah Freile**, geologist-New Jersey City University  
\*Fossil activities  
\*Presentation TBA
- **Professor George Mustoe**, paleobotanist & geologist – Western Washington University  
\*Wading ancient waters: the geologic history of Stonerose Lake  
\*Washington fossil footprints: Tracking birds and beast of a bygone era
- **Professor Bill Richards**, geologist-North Idaho College  
\* Gigapixel technology used for paleontological and field research
- **Rosalie Faubion** – CHREST Museum in Kennewick  
\*Fossil activities
- **Madilane Perry**-local archeologist – **Ferry County Historical Society**  
\*Ferry County Railroad history presentations

Due to the magnitude of presenters participating this year, we are asking local residents, business, and partners for donations. Our needs are as follows:

1. Gift basket items for each presenter (gift certificates to local restaurants, coffee shops, bakery, area T-shirts, hats, etc.).
2. Lodging sponsors for 1-5 nights, (adopt a scientist or school-up to 20 students overnight) .
3. Funding for event expenses (donations in any amount are greatly appreciated).

If you are interested in donating, or if you have questions please call or email Clementine at Stonerose: (509) 775-2295  
or [friendsofstonerose@rcabletv.com](mailto:friendsofstonerose@rcabletv.com).

**When:** (Specific times are not available yet)  
October 9, 2013 – October 14, 2013 all-day  
[www.stonerosefossil.org](http://www.stonerosefossil.org)

**Where:**  
Stonerose Interpretive Center  
15 North Kean Street  
Republic, WA 99166

## **Chips Off The Outcrop**

*By Bruce Hurley*

Our August Picnic/Potluck was a great success, as usual. Even the yellow jackets who attended appeared to be in a relatively good mood and went away well-stuffed, like everyone else. Thanks very much to Bill Allen, Brian Martell, and all of those who assisted them, and to all of those who provided food. Those of us who mainly chow down very much appreciate your efforts, and are already eagerly anticipating next year's event.

After last week's preview of fall, it appears that we will have at least a couple more weeks of summer. So now is a great time to get in another field trip or, as in my case, clean up all of the good stuff picked up during the summer. If you are in that mode, too, please think about what you might want to donate as Door Prize material, for the monthly Silent Auction, or for the scholarship auction at the November meeting. Your extras just might turn out to be someone else's treasures!

The program for the September meeting will be a video entitled *Earthquake Below*. This video explains how and why earthquakes occur, with particular focus on earthquake hazards in California, many of which are also present in western Washington and Oregon.

### **Thanks from the Jarobes**

We got your box of Washington Specimens today Thursday 8-29-13. They are Beautiful specimens .We haven't seen that many different specimens .

Now I can build or rebuild a special display for them . And I will put your rock club's name on it. The box made it ok..

We want to thank all the members who put in so many different specimens. And I know some of them were very special ones.

Thank All Of You..

Sure wish we could come up there.

**Thanks Richard Jarboe**

## **Rock Rollers Sunstone Trip**



The dates are Sept. 27 through the 30th for their trip which will also include Glass Buttes for obsidian and Hampton Butte for green petrified wood. The trip is being led by Dale Ruperd, who belongs to both North ID. club and RR. You can contact Dale at [daleruperd@yahoo.com](mailto:daleruperd@yahoo.com) for fine details. You can reach him also on his cell--[208 664 2712](tel:2086642712).

Dale says that he found a lot of high quality sunstones in just a half day at the Pana Mine. (He was cutting one that was 12mm x 6mm finished and a deep red when we talked.) Some others were green and some yellow. Pana Mines is well known for the rather large size crystals it continues to produce. They found one complete stone weighing 2275 carats. They are also known for the large amount of green stones mined from the site. See <http://rrrgems.com/>.

The kicker is the cost. A table of rock like the one shown above costs \$150. A look at eBay finds Oregon Sunstones selling for from \$60 to \$1,200 or more. Most of those are already cut but still this may not be such a bad deal. Dale urges you to call ahead to Pana Mine, 503-539-5927 and tell Randy Reinikka that you are coming.

Dale will meet with people at the BLM campground near the Dust Devil mine on Friday night September 27<sup>th</sup>. The dig itself is scheduled for the following day, Saturday, September 28<sup>th</sup>. [http://www.blm.gov/or/onlineservices/maps/map\\_series.php?series=6](http://www.blm.gov/or/onlineservices/maps/map_series.php?series=6) has maps. Lake County Oregon and a special rockhounding maps are available. Check PGMC newsletter <http://panoramagem.com/News/2009/News0509.pdf> for May, 2009. It has a story about sunstones in Oregon.

## Geology Tour of the Continental Margin Part II



As you may remember from the August newsletter there was an article on the Geology Tour conducted by Eric Cheney and Andy Buddington last July 20<sup>th</sup>. The article left off as we stopped for lunch on Stensgar Mountain. When we turned back down Red Marble Road we saw this view. In the foreground is the Red Marble Magnesite Quarry. Notice the white open pit mines on the hill behind it. They belong to the Lane Mountain Silca Company. It's website tells us that: **Lane Mountain Company in Valley, Washington is the largest producer of silica quartz north of California and west of the Dakotas. Founded in 1961 to provide sand for the growing glass market, Lane Mountain has thrived through chemical & logistic advantages and an old fashioned commitment to quality and service.**

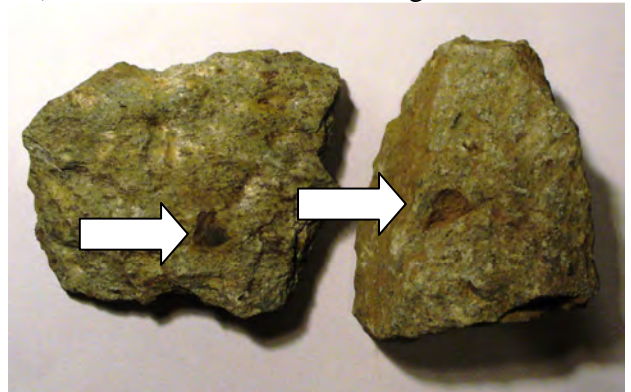


[Map of Lane Mountain Trust and Quartzite]

What was interesting to Cheney and Buddington was that the Lane Mountain Quartzite was geologically under the Togo Formation that holds the Red Mountain Quarry, but the Gypsy Quartzite mined by Lane Mountain is 530 million years old and the Togo Formation is 1700 million years old. Typically younger rocks are found above older rocks, but in this case, the Huckleberry Mountain Range has been pushed up and over Lane Mountain along the Lane Mountain thrust fault.

What I find interesting about Lane Mountain Silica is that some of it is sold as sand for golf course sand traps. The irony is that quartzite was formed originally from sand that washed down to lake bottoms in prehistoric times before there was much life on land. It became very hard rock. And now it is being ground into sand again. Who knows what kind of rock it will become next time around.

If we take it from the top (Near Stensgar Mt) we find ourselves in the Togo Formation.



[Togo Mt Diamictite – notice odd inclusions]

Although in the average rock pickers mind these would be DUR (Darned Ugly Rocks), they say a lot to geologists. The green color shows formation underwater. The weak wave lines show the water was shallow and the odd inclusions show that rocks dropped into the mud from ice. The ice was part of “Snowball Earth”, the Proterozoic period 650 ma (million years ago) when ice covered large portions of the earth.

Buddington and Cheney warned us that “topology is not stratigraphy”. In other words, these rocks formed on the bottom of an ancient ocean can still be found on top of a mountain today and even though they are older than some rocks further down the slope, they can still have been formed before those beneath them.

Speaking of further down the mountain, our next stop was the Red Marble Quarry. This huge open pit mine was active during wars early in the 20<sup>th</sup> century because the magnesite mined there was critical to creating fire brick used in blast furnaces while smelting iron. In its day the Red Marble produced 5 million tons of ore. Today magnesium is more economically extracted from sea water. The quarry is still in use for other rock products.



[Buddington and Cheney at the Red Marble]

This deposit highlights one of the mysteries of the Gypsy Peak Plate where it resides. How were the huge lenses of magnesite formed in this dolomite? There are competing theories having to do with movement of minerals under heat and pressure. The McHale slate, along one side of the quarry separates the magnesite deposit from the rest of the plate.



[Eric Cheney and Bruce Hurley by McHale Slate.]

McHale Slate is named after McHale Canyon north of Quarry-Brown's Lake Road. It is the highly compressed and extruded rock where

the Gold Hill Plate of limestone moved over the Wrights Mountain Plate of quartzite. Distinguishing the quartzite of Wrights Mountain from the quartzite of Quartzite Mountain helped Cheney and Buddington clarify a long-held misconception that the main thrust fault of the Colville Valley lay along the "Jump Off Joe Fault" on the east side of the valley. In fact the Vally Thrust Fault along the west side of the valley is the main break between the plates of rock. The quartzite from the Quartzite Mountain plate has been sheared off a huge dome of rock that starts east of Chewelah and continues to Missoula Montana where the quartzite reappears.



[McHale Slate]

Moving back to Hwy 395, we stopped at an exposure of "greenstone" on the east side of the road where Blue Creek Road enters Hwy 395, something I have always wondered about.



[Greenstone along Hwy 395 by Blue Creek Rd]

The green comes from chloride in the sea water when this volcanic rock was formed. On this tour we learned that even though not all rocks are pretty, they all have a story to tell. Some are still mysteries. More mysteries emerge next issue on a tour of some of the continent's oldest rocks.

### Membership Dues:

**\$15.00 per household per year is due to the club**

**Treasurer** Johnie Pitman (see below) on the third Tuesday of November for regular members.

Webpage: [www.panoramagem.com](http://www.panoramagem.com)

Contact: Bruce Hurley, President, 509-413-2768.

We, **The Panorama Gem and Mineral Club**, are a multi-faceted group of mineral-minded people. Our proud members include some real gems, a few fossils, and even some diamonds in the rough. A few have lost some of their marbles, but they know where to get more! A few need to polish their coordination because they are always tumbling! And some are miners who use the "silver pick" as their tool of choice! It should be crystal clear, that we all enjoy this unique conglomeration and above all else we strive to **HAVE FUN**. And we never throw stones (away).

### Keep Those Stories Coming

At our annual picnic we heard stories from Bob Bristow and Steve Fox of rockhounding adventures. They were good examples of stories: some truth, some fiction, some exaggeration, some information and not too much premeditation. So don't be afraid to write something - after all editing is my job. Thanks to Jamie Dahlke and Bill Sebright for pictures of the picnic. Get out there and do something crazy while it's still warm...and live to tell about it.

### Martell's Rock Shop

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**Mineral Identification  
Mineral/Mine Locations**

**Bristow Enterprises**  
PO Box 1165  
Chewelah, WA 99109  
[Bristow@theofficenet.com](mailto:Bristow@theofficenet.com)

[mineralsoftware.com](http://mineralsoftware.com)

This newsletter is published by the Panorama Gem and Mineral Club. Editor: Joe Barreca, 509-738-6255, [joe.barreca@gmail.com](mailto:joe.barreca@gmail.com).

### Panorama Gem and Mineral Club: Organizational Chart

<b>Officers:</b>			
President:	Bruce Hurley	10617 W. Lakeside Lane, Nine Mile Falls, WA 99026	509-413-2768
Vice-President:	Bob Bristow	PO Box 1165; 2567 Mud Lake Rd. Chewelah WA 99109	935-4375
Secretary:	Luci Bristow	PO Box 1165; 2567 Mud Lake Rd. Chewelah WA 99109	935-4375
Treasurer:	Johnie Pitman	701 B Williams Lake Rd, Colville, WA 99114	684-8887
Trustee 1:	Scott Jackson	1028 Old Hwy 12 Mile Rd, Colville, WA 99114	684-6371
Trustee 2:	Bill Lupton	2530 Six Mile Rd	509-935-6198
Trustee 3:	Bill Sebright	POB 293, Clayton, WA 99110	509-276-2693
<b>Committee Chairs</b>			
Program Coordinator:	Bev Bockman	1750 N Havichur Loop, Post Falls, ID 83854	208-773-5384
Hospitality:	Luci Bristow	PO Box 1165; 2567 Mudd Lake Rd. Chewelah WA 99109	509-935-4375
Club Shop:	Scott Jackson	1028 Old Hwy 12 Mile Rd, Colville, WA 99114	684-6371
Librarian:	Ruth Ross	750 N Lincoln, # 6, Colville, WA 99114	684-4925
Historian:	Carol Price	PO Box 77, Laurier, WA 99146	684-2857
Newsletter:	Joseph Barreca	2109 Hwy 25 South, Kettle Falls, WA 99141	738-6155
Show Chair	Bill Allen	2633 Highline Rd, Chewelah, WA 99109	935-8779, 936-2446