

Place: Arden  
Community Club  
Hall Rd  
Arden, WA



Time 7:00 PM  
Third Tuesday  
April - November  
6:00 PM December -  
March

## The Panorama Prospector

April 2016

### Panorama Gem and Mineral Club

March 15, 2016, Minutes

*by Anni Sebright*

President Bruce Hurley called the meeting to order at 6:15 p.m. Our meeting time returns to 7 p.m. next meeting, April 19th. It was decided that we begin the 6 o'clock start time beginning in November and running through March next year.

The revised refreshment schedule calls for "J" and "K" people to bring snacks and juice in April.

Vice-President Bob Bristow and Luci Bristow are passing their upper respiratory infection back and forth.

Thanks to Bill Allen, Sharon Borgford, Duncan Lickey and many more who worked on the rock show this year making it so successful. Over 2,000 people came through. Next year's show will be March 9, 10 and 11.

Welcome to Charlie, Sherry and Emily. Come visit us again.

The American Federation of Mineralogical Societies has named Scot Jackson 2015's Rockhound of the Year. Congratulations on the well deserved recognition, Scot.

Johnie Pitman delivered the scholarship applications to the three area high schools, Kettle Falls, Colville and Chewelah.

Many thanks to Johnie, Joe Barreca, Gene Fisher, Matt Harbin and Daniel Lundy for all the behind-the-scenes work you do. You are appreciated.

Some new field trips were discussed - - the West Fork of Trout Creek by Curlew Lake and another to an area around Wauconda.

Johnie and Ginger still have about 80 5-gallon buckets of rocks to sell at \$1 per pound. All monies go to the scholarship fund. Call (509-684-8887) before you come.

*continued page 2*

### Rockhounding Burns, Oregon

*Anne Ott*



We (Anne and Merrill Ott) decided to travel to the Burns area to mark off a few things on our bucket list, such as visiting the Steens Mountains, seeing the feral horse herds, and rockhounding Glass Buttes. Merrill's sister lives in Bend, so joined us for 5 days of touring the area and rockhounding while staying at a lovely RV park on the Silvies River just east of Burns on Highway 20. Burns has a great central location, not only for rockhounding the High Desert Lava fields, but also for visiting a myriad of rockhounding and geological sites within a few hours' drive. Burns has a lovely historical museum and library, and you'll find that the Highland Rock and Gem Shop on Highway 395/20 in Burns has a fantastic collection of Oregon minerals and lapidary material – Ellis, the owner, provided us with current local rockhounding maps, as well as gave us advice on how to tell different obsidian varieties apart, plus showed us some incredible agates, jaspers, and thundereggs. Another highlight was visiting the BLM's Wild Horse Corrals west of Burns right

off of Highway 20. Driving to the Steens Mountains to see the actual feral herds requires

*Minutes from Page 1*

We now have 20 display cases including their storage boxes. Consider participating next year with your collected rocks. It doesn't need to be spectacular. Identify the rock and a brief description is all that's needed.

Katy Lickey won the door prize.

*end*

heading east on Highway 78 from Burns for a mile or so, then turning south on Highway 205, through the Malheur National Wildlife Refuge.



Near milepost 21 along this highway, you'll see Double O Road to the west – if you take this road and proceed about a mile, you'll see what's locally called Eagle Mountain, a cliff with an eagle's nest high on the cliff. What we found more interesting were the piles of alluvial gravels from Harney Lake – they literally gleamed with natural “tumble-polished” agates and jaspers! There are 2 interesting types of agates to be found here, along with some fairly decent jasper and picture jasper: as you hike to the tops of the piles, you start finding oolitic agates (AKA "Fish Egg Agate"), plus some agates resembling fire agates (without the color). Small pieces of dark brown and grey petrified wood can also be found, and local sources told us of tube agates at the top of the bluff. The photo above shows the many piles of gravel at Harney Lake.

Following Highway 205 South, you'll go through Frenchglen, where there are several historical stops for the family to enjoy, as well as a self-guided auto tour of Diamond Craters Outstanding Natural Area, a 17,000 acre area that

resembles the lava fields of Hawaii! Since the valley altitudes are around 4,000' access to the upper Steens Mountains wasn't open, but we were able to travel several miles on the South Steens Mountain Loop Road, east to an outcrop of Steens Basalt that featured the unusual “turkey tracks,” where feldspar crystals are enlarged and resemble white tracks on the red basalt. An uplift range, the eastern slope of the Steens drops steeply to the Alvord Desert, famed for its sailplane base and hot springs.



[Anne collecting obsidian - photo from a drone]

The main attraction near Burns, of course, are the Glass Buttes, about 30 miles west on Highway 20. The best road south to the buttes is at milepost 77, and it leads to some lovely dispersed camping areas along the road, with plenty of shade from the juniper trees. There's a small stock pond and water tanks for livestock, although we didn't see any cattle during our visit. The larger butte, Glass Butte, features mostly black and red obsidian, and Little Glass Butte features the widest variety of obsidian varieties, including Midnight Lace, Rainbow, Sheen (gold and silver), mahogany, black, red, fire, snowflake, and Aurora Borealis. Decent gravel roads led to most pits, but any adventures into the higher elevations of the buttes can lead to 4WD-only access, for high-clearance, smaller vehicles.

Most collecting areas are along the gravel roads, and most roads loop back to the main road – there are several roads that access Highway 20, but the one at milepost 77 is recommended, due to its width and graded surface (it was being graded when we visited). The spring Knap-In had been the previous week, so we had a delightful time



prowling through their flakes around the campfire rings, finding some nice partially-knapped blades!



Obsidian collecting can be time-consuming, as many rockhounds prefer to dig down to layers of obsidian embedded in the rhyolite flows (photo at left). The

ground is covered with obsidian, but each piece needs to be examined in the sun to see if it has internal features such as flow-banding, which can cause the various internal colors, such as lace, fire, or Aurora Borealis. There is plenty of off-road parking available on this BLM property, and the altitude keeps the area a bit cooler – the buttes are both over 6,000' in elevation at the peaks. Merrill's photo drone helped us find dig sites, as well as record our rockhounding activities. Some of the larger obsidian pieces don't show interior color, so take the time to do some knapping or just plain, old hard-rock mining and break open the obsidian. Many of the named varieties are simply variations on a theme – for example, "lace" obsidian can have black and mahogany or other varieties in it, but they're separated into bands, streaks or spots, and the rest of the obsidian is transparent, usually a grey or purple color, but



smaller flakes can be entirely clear, making for lovely lapidary pieces. Although we never

found the actual digging pit, we did find some small pieces of Aurora Borealis (shown above), and bought larger samples at the Burns' rock shop. Locals recommended that this obsidian be cut at a 5 – 15 degree angle to the flow banding to achieve the best effect without losing the color and sheen of the flow bands. Fire obsidian digging areas were interspersed with flow-banded,

sheen, and mahogany. My favorite color was the mahogany with sheen, producing a wonderful golden gleam to the dark red-orange and black stripes. The photo below shows a knapped obsidian blade exhibiting sheen. The fire obsidian itself was typically black a dark purple, or sometimes a dark grey, with the flash of "fire"



appearing in small areas that seemed to be areas of fracture, but some did show small areas of color resembling bubbles within the obsidian.

I haven't researched the full range of obsidian varieties, as local sources allege that there are over 250 different varieties, but some sources state that much of the different colorations are due to flow banding, with other minerals such as feldspar or mica being layered with the silicates. For the more unusual green obsidian, travel back east towards Burns on Highway 20, and turn north across from the Snow Mountain Pine Mill just outside of the tiny town of Hines. Due to the abundance of private property, rockhounding is mainly on the road right of way – colors of obsidian in the Hines area are green, black, red, banded, sheens, plus Apache Tears have been found just west of Hines Butte along this road. Further north along this road is Willow Flat, just east of the road, just past the power lines. As you



can see in the photo on the left, everything that gleams is obsidian, so you'll be sure to enjoy rockhounding in Burns! There are RV parks in all of

the areas we visited, plus extensive dry camping available on BLM lands, and motels in most towns, even at tiny Harney Lake at the Narrows, at Frenchglen, and in the Steens Mountain area! Many feature hot spring bathing, fishing, bird-watching, and other recreational activities, including horseback tours of the Steens Mountains.

## **Chips From The Outcrop**

*By Bruce Hurley*

As usual, the Rock Rollers 2016 annual show in Spokane was a good one, with great attendance, even on a warm Easter weekend in late March. About the only thing missing was attendance by very many school children on Friday. This is apparently because the public schools of Spokane are concerned that all children who would attend the show as a school event would not have the same amount of money to spend. There were some school children in attendance, however, from private schools in the Spokane area. And teachers from one of these schools came up with a great way to make the show a learning experience, not only about geology, but also effort and reward as a team.

This class began preparing for the event long before the show. The students as a group conducted several fund-raising events, with the goal of obtaining enough money for each student to have five dollars to take to the Spokane show. Once there,

each student was given the assignment to purchase a component of at least one igneous, sedimentary and metamorphic rock. These children were diligent in completing their assignment, and all were able to obtain the necessary rock components, but with a variety of different combinations of rocks, minerals and fossils. Everyone helped everyone else, and all were given adequate time to complete their task and enjoy the show itself. The effort each student put in was rewarded, both by what they saw and obtained at the show, and also from the effort they put in together to earn benefits as a group.

I was quite impressed with the manner with which the staff of this private school enabled their students to attend the show on an equal "social justice" footing, regardless of their monetary means at home. I wish the public schools in Spokane would demonstrate this type of "outside the box" thinking, so that their classes could attend an event with earth materials of types and varieties their children will never see at school.

### **Stonerose Trip Postponed**

**The April 30 field trip to Stonerose will have to be rescheduled, as their Members Weekend is later this year, and includes April 29 and 30, and May 1. Given the warmer weather already, there should be quite a crowd there all weekend, which means less opportunity to find good fossils for our trip. After that date, there appears to be no weekend prior to June 18-19 that there is no conflicting event, and it will be hot in Republic, by then. So, the field trip committee will discuss potential dates with the membership at next week's meeting, to determine another date.**

### **Newsworthy Notes**

- The road to the Merikay is now gated. The ranger in charge stated that the USFS never has had ownership of that road, but they were merely allowed to use it through the goodwill of the property owner, which changed sometime last year, resulting in the gates at the boundaries of their property.
- The program, "The Ice Age Floods, a Perspective from Above and Within" is at the Colville Community College Rendezvous Theater, Friday, April 22, 7 pm and is free to all.
- Our first field trip to Evans Quarry is April 16 th. Co-ordinators Bruce Hurley & Jerry Novak will be the outing's leaders to look for in the Harvest Foods parking lot at 9 am. Bring protective eyewear, gloves, steel-toed boots, knee pads, bucket or backpack, newspaper to wrap specimens, small sledge hammer, chisel, pic-hammer, bug repellent, a lunch and water.
- Refreshments for April are from members whose last names start with "J" or "K". In May the letters are "L" and "M".



## John Day Territory

by Joe Barreca



[Castle Rock on Highway 19]

Almost by accident, last week Cheryl and I visited the John Day Fossil Beds. Visiting the real thing dispelled some misconceptions. Dinosaurs definitely did not sleep in them. In fact they date from 44 million years ago (MYA) after the extinction of the dinosaurs. So most of the fauna in these deposits are mammals, but not much like any we see today. Also they are not all in one place. There are three John Day Fossil sites.

The Sheep Rock unit near Dayville, Oregon, holds the **Thomas Condon Paleontology Center (TCPC)**, a museum and laboratory finished in 2015. The museum is free. You can watch a film here about the whole enterprise. The museum hosts training for future paleontologists and paleobotanists. Across the river from the center you can see the multi-colored layers of volcanic tuff that have fossils from hundreds of species of both plants and animals in layers that span 44 million years. The picture of Castle Rock shows many of the same layers especially the green ones colored not from copper, as we would expect around here, but by zeolites.

The layers were formed by lahars. "A **lahar** /'lɑ:hɑ:r/ is a type of mudflow or debris flow composed of a slurry of pyroclastic material, rocky debris, and water. The material flows down from a volcano, typically along a river valley." During volcanic eruptions the tropical and later temperate forests of the time were

trapped in these formations so that both plant and animal remains are fossilized together. This combination records a detailed story of life evolving on the western edge of the North American continent.



[Lab tech cleaning fossils]

You can watch what a lab tech sees through a digital microscope on a screen above this window. It is detailed and tedious work on specimens sent to the site from many places. The John Day Clarno unit sends the most mammal fossils to the TCPC. It is on Highway 218 south of the town of Fossil.



[Karen Masshoff]

In the town of Fossil itself you can visit the Oregon Paleo Lands Center and dig fossils in beds near Wheeler High School. We talked to Karen Masshoff at the center and learned that she envies the Stonerose Fossil Center for the way it preserves scientific knowledge while managing the fossil site. The Wheeler High School site is not managed and clay debris now obscures the layers. Karen relates that you can still dig fossils on BLM land near the Painted Hills unit without a permit, but a visit to a local BLM office is recommended.

<http://www.oregonpaleolandscenter.com/>  
<https://www.nps.gov/joda>

**Membership Dues:**

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

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

Webpage: <http://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).

**April Program**

The program for this month is a video entitled "Jewel of the Desert." This video is about Karchner Caverns State Park in southern Arizona, one of the best-preserved cavern systems in the United States, currently open to the public.

We will be discussing changes to the Stonerose Field trip at this meeting.

**Vinyl Labels:** Barreca Vineyards has an ever-growing supply of vinyl labels, 1 1/4" by 4". These labels do not mold or dissolve in

water, great for sticking to sample rocks with time, place and rock type. Contact Joe Barreca, 738-6155, if you could use some.

<u>Trip</u>	<u>Mineral</u>	<u>Date</u>	<u>Meeting Time/Place</u>
Evans Quarry	(calcite, dolomite)	4/16/16 (Sat.)	Harvest Foods, Kettle Falls, 9:00 am
Stonerose Quarry, Republic	To be announced	4/30/16 (Sat.)	Harvest Foods, Kettle Falls, 8:00 am
Omak	(aventurine)	5/14/16 (Sat.)	Harvest Foods, Kettle Falls, 9:00 am
Flagstaff Mountain	(barite)	5/22/16 (Sun.)	Harvest Foods, Kettle Falls, 9:00 am
Horseshoe Mountain	(quartz)	6/11/16 (Sat.)	Harvest Foods, Kettle Falls, 9:00 am
Adams Mountain	(epidote, quartz)	7/9/16 (Sat.)	Gasoline station, Fruitland, 10:00 am
Metaline Falls quarry	(trilobites, brachiopods)	7/23/16 (Sat.)	Train station, Ione, 10:00 am
Emerald Creek; Clarkia Bowl, ID	(garnets; plant/fish fossils)	8/13,14,15,16	Yoke's Fresh Market, Deer Park, 9:00 am

**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	509-935-4375
Secretary:	Anni Sebright	POB 293, Clayton, WA 99110	509-276-2693
Treasurer:	Johnie Pitman	701 B Williams Lake Rd, Colville, WA 99114	509-684-8887
Trustee 2:	Gene Fisher	295 Gold Creek Loop Rd, Colville, WA 99114	509-684-8546
Trustee 3:	Bill Allen	2633 Highline Rd, Chewelah, WA 99109	935-8779, 936-2446
Trustee 1:	Becky Dobbs	968 Phillpott Rd, Colville, WA 99114	509-684-6931
<b>Committee Chairs</b>			
Program Coordinator:	Bev Bockman	1750 N Havichur Loop, Post Falls, ID 83854	208-773-5384
Hospitality:	Debora Danielson	1365 Arthur Ct, Kettle Falls, WA 99141	509-738-9260
Club Shop:	Gene Fisher	295 Gold Creek Loop Rd, Colville, WA 99114	509-684-8546
Historian:	Carol Price	PO Box 77, Laurier, WA 99146	509-684-2857
Newsletter:	Joseph Barreca	2109 Hwy 25 South, Kettle Falls, WA 99141	509-738-6155
Show Chair	Bill Allen	2633 Highline Rd, Chewelah, WA 99109	935-8779, 936-2446