Place:
Arden Community Hall
636 Hall Rd
Arden, WA

Club Meetings:

Third Tuesday of The Month at 6:00PM

The Panorama Prospector

August 2021

PANORAMA GEM AND MINERAL CLUB
June 15, 2021 Meeting Minutes

By Sharon B and Johnie Pitman

Bob Bristow called meeting to order at 6:00

We discussed upcoming picnic and auction. The picnic will be outdoors, and you will need to bring your chair and drink. The club will buy the chicken and the rest is potluck, so bring a salad or desert. We hope to have everything set up and ready to eat at 6 o'clock. Come early to help set up both inside for the auction and outside for the picnic. The club has a lot of donated rock and lapidary-related items, but you can donate on more than one related item if you want.

Next year's show will be the second weekend of March. Johnie checked on the show equipment in the trailer and everything seems to be withstanding the heat. We will move the trailer before Aug. 15, so it is out of the fairground area for the fair. Gene volunteered to do that for us.

We discussed getting a booth at the Stevens County Fair, but keeping someone at the booth for 12 hours a day for 4 days was not possible. We will try to have a display in the crafts area at the fair and Gene Fisher volunteered a nice display cabinet that we could use at the fair.

Continued Page 4

How to Survive in the Wilderness (On One Cube of Beer)

By Bob Bristow

One day, Luci and I decided to take the long way home from Spokane. We turned off of Hwy 395 just north of Loon Lake onto what becomes Grouse Creek Road when it leaves the pavement. The Grouse Creek Road goes past isolated farms and homes and eventually gets quite rough after the last house is passed. It works its way north past the intersection of the end of Cottonwood Creek Road. It was built on the side of the mountain with high talus slopes above and a long drop into Cottonwood Creek below. Eventually it passes the dam on Horseshoe Lake and comes to Crow's-foot Junction. We take the Horseshoe Lake Road for a couple of miles and turn off onto Mud Lake Road. Then we go down past Mud Lake and wind up the switchbacks to our home on the ridge.

Prospecting is only one of the things we do on an outing like this. There is always something interesting to see or do. In addition to wildlife, there are many interesting rock outcrops to examine. When the Pacific islands rafted in and attached themselves to the old North American west coast, they caused the land to buckle in places, forming the Coast Range, Cascade Mountains, and the Rocky Mountains. We live practically on the boundary, and we can see both continental and island rocks from our home.

On that day, we were looking at the various rocks and imagining how they formed. We passed outcrops

of a layered rock called Belt Series that extends all the way over into Montana. We envisioned it forming one thin layer at a time in a shallow sea. You can often see ripples in the rock where the sea was very shallow. In places, we have seen small cubic holes in the rock where salt crystals once formed on a beach. In other places, the spatter marks left by raindrops are recorded in the rock. We saw schist and talked about how it formed far down in the earth at a temperature near melting. We also saw gneiss that was granite that got hot enough to make it plastic and to allow minerals to begin to segregate into bands.

Our admiring of the rocks was cut short by a man stepping out of the brush and waving his hands for us to stop. We stopped and he said he was part of a group that was in a car that had gone off the road and could we help getting it back up. We invited him to get into the back seat and guide us to the problem area. He led us to a side road that would eventually lead up to the top of Chewelah Peak. He explained that his grandfather had taken the two boys (the boys were in their thirties) out to show them how to live in the wilderness. He said his grandfather had gone off the road when he tried to turn around. We suspected the base cause of the problem as soon as the man got in our car. There was a strong smell of beer.

Grandpa's Car

When we got to the accident scene, we saw their car as in the figure above. The grandfather and other grandson were sitting on the side of the hill with a cube of beer cans between them. There were enough empty cans lying around that it looked like they were trying to empty the cube before anyone came to rescue them. I told the grandpa that I couldn't pull them out with my small car, but I would go home and bring back the pickup and a logging chain.

When we got back, they were surprised and happy. They had concluded we probably wouldn't return. As I hooked up the chain to the front axle of their Jeep, Grandpa came over and told me I was doing it all wrong. I ignored him and with my heavy pickup in four wheel drive the Jeep came right out. I unhooked the chain from the Jeep and as I was putting it in the back of the pickup, Grandpa and the kids took off in a cloud of dust. In the wrong direction! Luci said, "Shouldn't we flag them down and tell them they are going the wrong way?" I said, "No. By the time they find their way down from Chewelah Peak, maybe they will be sober enough to not kill someone on the highway."

And that was Grandpa's version of how to survive in the wilderness!

"Updated one-page summary of Washington's geologic history"

From the Washington State Geology News by Washington State DNR. Jun 15, 2021 10:00 am | Washington State Geology News Check out their webpage for more articles on Washington State Geology - washingtonstategeology.wordpress.com

Think you can summarize Washington's geologic history in one page? It's not easy. Washington has a very rich and diverse geologic history spanning hundreds of millions of years. From the Methow Ocean to the highlands of the Okanogan, to the Selkirk Mountains, to the Puget Lowland, every square inch of Washington's land has a story to tell.

The Washington Geological Survey has revamped one of our popular handouts that provides the cheatsheet version of Washington's geology. The front page of the handout includes a simplified map of the geology while the backside discusses some of the most important moments in Washington's geologic history, and in fewer than 700 words at that!

THE GEOLOGY OF WASHINGTON STATE

Washington consists of a diverse collection of rocks that tells an amazing geologic history. The deepest rock in Washington, called "basement", consists mostly of terranes accreted to North America over the last 200 million years. These basement terranes are overlain by a variety of sedimentary and volcanic rocks that add detail to the history.

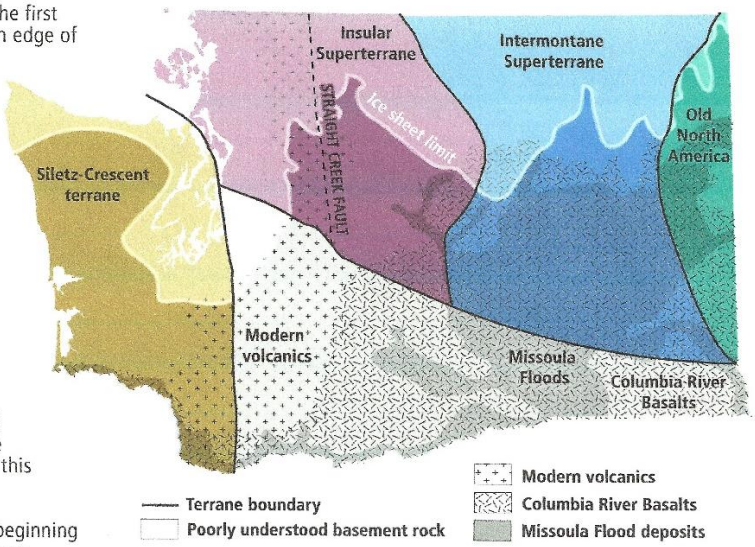
At the eastern edge of Washington State are exposures of **Paleozoic North America**. These rocks are overlain by metamorphosed sedimentary rocks dated around 1.46 billion years ago (unit **pCm**). These are the oldest rocks that have surface exposures in the state. Overlying the oldest rocks are metamorphosed sedimentary and volcanic rocks, dated around 700 million years (unit **pCs**).

For much of the Paleozoic (540 to 250 million years ago), the western coast of North America was tectonically inactive and bordered an ancient ocean. Some Paleozoic rocks in northeast Washington, including quartzite and conglomerate (unit **Ps**), indicate river, coastal, and ocean environments.

By 250 million years ago, the first of several subduction zones formed along the western edge of Washington.

The onset of subduction brought the first of what would be many arrivals of exotic terranes. The first accreted terrane included a collection of already accreted volcanic islands, collectively known as the **Intermontane Superterrane**. The collision of this terrane around 170 million years ago caused metamorphism and magmatism throughout the region.

Following the arrival of the first superterrane, the western edge of Washington hosted the prehistoric ocean, the Methow ocean. Marine sand and mud built upon the ocean floor (unit **Ms**), later to be thrust eastward with the arrival of another accreted terrane.



The complex patchwork that is the **Insular Superterrane** arrived throughout the Mesozoic, between 250 and 60 million years ago. Intermittent volcanic arcs contributed plutons that intruded the accreted terranes during this time.

Tectonic rearrangement beginning around 60 million years ago exerted a northward push that created extensive north–south strike-slip faulting through the middle of the North Cascades. Right-lateral motion along these faults, notably the Straight Creek fault, resulted in approximately 90 km of displacement. At the same time, extension created and exposed metamorphic core complexes in the Okanogan Highlands (unit **pTm**) and the metamorphic and intrusive igneous rocks of the North Cascades terranes (unit **pKm**). About 50 million years ago, the final major addition to Washington had arrived. The **Siletz-Crescent terrane** (unit **lTv**) was an exceptionally large chunk of basaltic islands and ocean floor. When it collided with North America, subduction temporarily ceased.

By 40 million years ago, subduction resumed west of Siletzia, resulting in another volcanic arc and uplifting rocks of the Cascade Range. By 17 million years ago, the Yellowstone Hot Spot caused the eruption of the Columbia River Basalt Group, the youngest continental flood basalt eruption on Earth. These eruptions ended by 6 million years ago, and they covered vast areas of southeastern Washington, Oregon, and Idaho (unit **uTvc**). During these eruptions, continental rifting in the Basin and Range and northward drift of much of California caused clockwise rotation and deformation of the Pacific Northwest, creating the Yakima fold and thrust belt. Rotation about a pole near the northeast corner of Oregon is still ongoing.

This rotation likely contributed to the onset of the modern Cascade arc ~10 million years ago. Volcanism and uplift of the mountain range introduced stratovolcanoes that are still active today (unit **Qv**). The mostly basaltic Boring Volcanic Field was also active beginning about 2.7 million years ago.

Pleistocene cooling brought broad continental ice sheets across the northern half of the state (unit **Qg**). Repeated glacial advances and retreats carved the modern landscape, including the Puget Sound and surrounding lowlands. Massive glacial lakes were dammed by ice and episodically breached during this time, releasing the enormous Missoula Floods that spread across eastern Washington to the western coast, traversing the Columbia River.

Washington Department of Natural Resources—WA Geological Survey
geology@dnr.wa.gov • 360.902.1450 • https://www.dnr.wa.gov/geology

Meeting Minutes

Continued from Page 1

The Marcus Cider Fest is the first Saturday in October, and the club can sell some rocks and other things there, and we will need some help setting up and manning the booth from 7 AM until 5PM. It is a one-day event.

Jim Retzer talked about the copper slag and copper mines and brought two nice specimens. Bob talked about Red Top collecting blue agate nodules and brought a 6" geode that had quartz crystals inside with some calcite crystal on the quartz – very nice. Johnie talked about Blue Forest trip about which Betty Peters had written a very good article for the newsletter last month. It was a lot of work to dig for the petrified wood and a lot of time spent trying to clean up the small pieces that were found.

Possible field trips were discussed. Greg Cozza talked about Riggens, Idaho and the possibility of going there. Bob Bristow talked about Idaho's Graveyard Point and the Bruneau woodpile.

Glennis Hull talked about a possible field trip to eastern Montana later this year, no dates were set. There was some discussion about a trip to Crystal Park, Montana, no dates set.

Misty Ames' son talked about finding the magnetic rocks near Newberry volcano in Oregon, while on their trip to California. Sharon talked about a trip over Old Blewett pass road where you can find some leaf fossils (although she was more interested in the geology of the area) .

We had a break for refreshments, silent auction, and door prizes.

Bob dismissed us about 7:30.

Upcoming Events in Our Area

Be sure to check the events before you go as some may change dates or cancel due to local Covid-19 Regulations.

8/20/2021 8/22/2021
Willamette Agate and Mineral Society Annual Show
Polk County Fairgrounds
520 S Pacific Hwy W
Rickreall, OR
Website: www.WAMSI.net

8/27/2021 8/28/2021
Southern Washington Mineralogical Society 55th Annual Show
Silver Lake Grange
3104 Spirit Lake Hwy
Castle Rock, WA
Email: vickijrocks@msn.com
Phone: (360) 751-8031

9/11/2021 9/12/2021
Clallam County Gem & Mineral Association Annual Fall Rock Show
Vern Burton Community Center
308 East 4th St
Port Angeles, WA
Email: kmsjes@olypen.com

9/11/2021 9/12/2021
Mt. Baker Rock & Gem Club Annual Show
Pioneer Pavillion
2007 Cherry Street
Ferndale, WA
Email: debnwes@comcast.net
Website: www.mtbakerrockclub.org

9/11/2021 9/12/2021
Marcus Whitman Gem and Mineral Society
51st Gem and Mineral Show and Federation Meeting
Walla Walla County Fair Grounds,
Community Center Building
831 Orchard St
Walla Walla, WA
Email: jcedwards.2019@gmail.com

9/25/2021 9/26/2021
Lakeside Gem and Mineral Annual Show
Benton County Fairgrounds
1500 South Oak
Kennewick, WA
Email: rockhound132@charter.net
Website: www.lakesidegemandmineralclub.com

Identify the "Rock or Mineral"

Last month's rock or mineral:

Mushroom Rhyolite - Rhyolite is an extrusive igneous rock, formed from magma rich in silica that is extruded from a vent to cool quickly on the surface. It is usually pink or gray in color with very fine grains that are difficult to observe without a hand lens. It is made up of quartz, plagioclase, and sanidine, with minor amounts of hornblende and biotite. It is the most silica-rich of volcanic rocks. texture.

Mushroom Rhyolite is a species of rhyolite that is usually a greenish matrix with bubbles of gray that when cut produce images of mushrooms. It is found in several areas of Southern Arizona. It gets its name from the repeating gray pattern that sometimes looks like a mass of growing mushrooms.

Mushroom Rhyolite is found in different shades of red, orange, green, gray, and brown.

The formation of Mushroom Rhyolite is an atypical thunderegg formation where most of the thundereggs did not completely form. The thunderegg started to form, stopped, then started again. This forms the overlapping gray shapes in the rhyolite. In certain areas, the reddish halo surrounds the outside of the gray massive thundereggs providing a colorful contrast on the rock. Outside the reddish halo the host rock can be a greenish color and when hard enough, it provides a gray, red, and green color combination.

This month's rock or mineral

Membership Dues:

$20.00 per **household** per year is due to the club Treasurer Frank Stratton on the third Tuesday of November for regular members. Dues can also be sent to: Panorama Gem and Mineral Club c/o Johnie Pitman, 701 B Williams Lake Rd, Colville, WA 991114.

Webpage: http://panoramagem.com/
Contact: Rick McDougald
rick-pgmc@hotmail.com

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).

Do you have any knowledge or information you think would be of interest to the club members? If so, please submit an article. We need the input to keep this newsletter interesting and stimulating for our members.

Small or large, it does not matter. We are just looking for some fresh ideas. You can send it in the body of an e-mail or as a Word attachment to an e-mail.

Submit to: jimrocks@recycledhistory.com

Refreshment Schedule for 2021

Last names that begin with the letters posted bring refreshments for that month

January – N, O, P
February – Q, R, S, T
March – W, A, B, C
April – D, E, F, G
May – H, I, J
June –K, L, M
July – N, O, P
August – Club Picnic
September – Q, R, S, T
October – W, A, B, C
November - D, E, F, G
December – Christmas Party

Panorama Gem and Mineral Club: Organizational Chart

Officers

President:	Sheila Stratton	skstratton@hotmail.com	509-207-8506
Vice-President:	Bob Bristow	bristow71@outlook.com	509-935-4375
Secretary:			
Treasurer:	Frank Stratton	frstratton@outlook.com	509-207-8503
Trustee 1:	Jim Peters	jimNbetty17@gmail.com	509-999-9074
Trustee 2:			
Trustee 3:	Greg Cozza	troller@hotmail.com	509-710-0375

Committee Chairs

Program Coordinator:	Sheila Stratton	skstratton@hotmail.com	509-207-8506
Hospitality:	Betty Peters	jimNbetty17@gmail.com	509-999-9074
Historian:			
Newsletter:	Jim Retzer	jimrocks@recycledhistory.com	509-738-2503
Show Chair	Johnie Pitman	jgpitman@outlook.com	509-684-8887