

Place: Arden
Community Club
Hall Rd
Arden, WA



Time 7:00 PM
Third Tuesday
April - September
6:00 PM October -
March & August

The Panorama Prospector

August 2017

Panorama Gem and Mineral Club Minutes July 18th 2017

by Anni Sebright

Visitors and new members were introduced and welcomed. A sympathy card was made available for all to sign for founding member and source of information, Rex Barrans. Our condolences to Mable Barrans.

Information was shared about the Calgary Rock Club's August 25th trip to Rock Candy Mountain.

There is a set of 4 ATV maps available at the Colville National Forest office. They are mandatory for ATV users.

Todd Booth talked to Ginger Pitman about the Vincent Fund making monies available to organizations that bring people to Colville. Ginger will gather more details, and we will be better able to decide if this is something we want to do.

August 4, 5 and 6 are Colville Rendezvous Days. Volunteers are needed to man the booth before 10 a.m. until after 7 p.m. Scot, Johnie, Bruce, Arden and Maurice were among the first to sign up.

Our August 15 meeting is also our annual picnic and barbecue and will start at 6 p.m. with set-up at 5. Bill Allen will be cooking the burgers and dogs. We will provide the other picnic items. Also, don't forget your chairs.

Thursday, August 10, at 9 a.m. at Johnie and Ginger Pitman's, 701 B Williams Lake Road, the first driveway, is the date set as table construction day. Dennis Gibbens is bringing his portable table saw.

The Metaline Falls field trip will start at the Ione Train Station at 10 a.m., Sunday, July 30. This quarry is known world wide for the folds in the rock layers which stretch fossils within them.

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Geology Snapshots - Hwy 395 from Arden to Deer Park

by Sharon Borgford

PART 8 Clayton Clays

The next town on Hwy 395 is Clayton. It has lived up to its name - high quality clays were mined here and processed into various products for over 60 years. In 1893 the Washington Brick & Lime Company* built a large factory on the north side of the railroad tracks in the town, and the company continued operation until 1957.



Photos of brickyard - courtesy of Clayton-Deer Park Historical Society.

As an early grade school student, one of our field trip destinations was to this brick plant. I remember

The Flagstaff Mountain field trip will leave from the Rivers Edge Service Station in Northport August 13, 9 a.m., looking for barite crystals.

New upcoming field trip details will appear on the back of your monthly newsletter.

For field trip safety, remember to bring: eye protection, gloves, hand sledge, pry bar, closed-toe shoes, rock hammer, hard hat, a container appropriate for your collection, water and food. A camera is always a good accessory.

Katy Lickey won the door prize.

end

walking through the buildings, and getting to look inside an empty, but still warm, kiln. No factory buildings remain today.

The main supply of raw clay came from a pit at the factory site and four other pits located within a very few miles. The clay pits/quarries are now filled in and no longer visible, except for a small auxiliary pit known as The Paint Pot on Gardenspot Road, about 5 air miles NNE of Clayton.



Remains of Paint Pot clay pit.

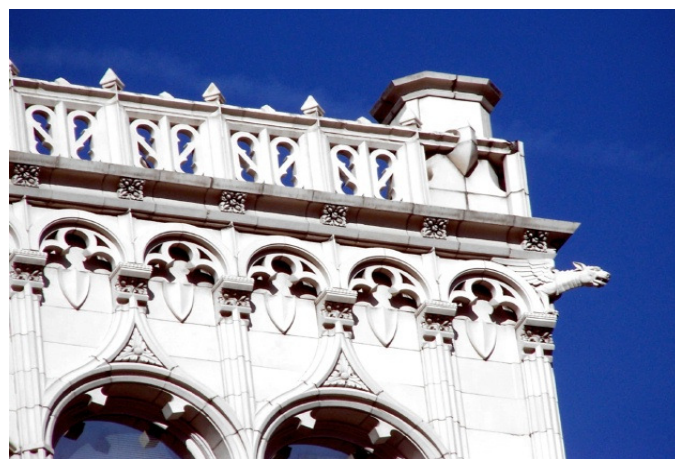
The formation and availability of these clay deposits is related to the weathering of the surrounding metamorphic continental rocks with their igneous intrusions, and the eruption of the Columbia River Basalts. (What is now Washington State was already part of North America by the time the Columbia River Basalts began to flow).

Based on well log records, the exposed landscape prior to the basalt eruptions consisted of the metamorphic bedrock of the Old North American Continent and the later intruding granites. The weathering and decomposition of these types of rocks that are low in iron can create a quality clay.

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Two terms that are important are "weathering" (the breaking down of any type of rock into smaller and smaller pieces) and "erosion" (the movement of any soil or rock material away from their location of formation). In order for clays to form, the weathering process must be working faster than the erosional forces so that the substances are not all washed away. As the lava flows began to fill the Columbia basin, streams were blocked, forming lakes and ponds that filled with silt, mud and clays, and often included remains of plants, animals, and even trees. The finer clays and particles destined to become clays settled to the centers of the water bodies, with courser sands and silt towards the edges. The time that elapsed between flows was sometimes enough for soils to form, vegetation to grow, and sediment to deposit on top of the layer of basalt.

As new lava flowed over the deposits, they were buried, and the process was repeated many times, resulting in the sediments being inter-fingered between lava flows. These sedimentary deposits are known as the Latah formation. Clayton is located at the edge of some of the lava flows where they butted up against the exposed igneous intrusions we have just traveled through. Some of the Latah formation clay deposits were left very close to the surface in the Clayton locality, barely covered with glacial debris. This situation resulted in their being easy to discover and mine.



*Terracotta decorations, Sherwood building, Spokane, WA
Clayton-Deer Park Historical Society photo*

The variety of products made in Clayton included not only common brick, but face brick, paving brick, stoneware, sewer pipe, and glazed

architectural terracotta. Their decorative terracotta creations are a part of numerous Spokane buildings and a library at the University of Washington. The decorative work on the outside of the Clayton Moose Lodge (Clayton Grange) and the large eagle on display near the Clayton Drive-In on Hwy 395 are other examples.

Beyond Clayton, Mt. Spokane on the eastern horizon is a prominent landmark visible for many miles. The side facing us as we travel Hwy 395 is a granite pluton called the Spokane Dome. This igneous intrusion is approximately the same age as the Loon Lake Batholith. Next time we will learn about the broad expanse between Clayton and this mountain which Hwy 395 traverses all the way to Spokane.



Mt. Spokane

References:

- *Through the years the company had several slightly different names: Washington Brick & Lime Co., Washington Brick, Lime & Mfg. Co., Washington Brick, Lime, & Sewer Pipe Co.
- Clayton-Deer Park historical society, www.cdphs.com, Mortarboard newsletter and information/photos on website.
- Cline, D.R., 1969, Ground-Water Resources and Related Geology North-Central Spokane and Southeastern Stevens Counties, of Washington, St. of Washington Water Supply Bulletin No. 27.
- Coffin, Peter, Clay Pits of the Clayton Area, Clayton/Deer Park Historical Society Mortarboard, Issue #23, 2010. www.cdphs.com
- Derkey, R.E., Hamilton, M.M., Stradling, D.F., 2005, Geologic Map of the Deer Park 7.5 minute Quadrangle, Spokane, County, Washington, DNR
- Glover, S.L., 1941 Clays and Shales of Washington, Washington State Dept. of Conservation and Development, Bulletin 24.
- Nisbet, J., The Washington Brick & Lime Company, The Pacific Northwest Inlander, April 25, 2002.

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Parker, W.L., A Short History of Clayton's Terracotta Works, Brickyard Days Flyer, 2017.

Stoffel, K.L., Joseph, N.L., Waggoner, S.Z., Gulcik, C.W., Korosec, M.S., and Bunning, B.B., 1991, Geologic map of Washington northeast quadrant: Washington Division of Geology and Earth Resources, Geologic map GM-39. Townsend, C.L., Figge, J.T., 2002 Northwest Origins, The Burke Museum of Natural History and Culture, University of Washington, www.burkemuseum.org/geo_history_wa/

All photographs and illustrations by Sharon Borgford unless otherwise noted.

Trilobite Field Trip a Success



Thank you very much for allowing my sister and I to join your club for the trilobite outing...we had a very good time and we found a few nice trilobite fossils.



Thank you. Beverly

This is a thank you note and picture from Beverly, who is not a member of our club. It is a good reason why we don't limit our field trips to club members. They came from the Tacoma/Puyallup area mainly to go on this field trip.

Johnie's Jabber The Club Booth at Rendezvous *by Johnie Pitman*

Thursday, Aug 3 I checked on the space that we were to set up on. It was 24' but when we got there Friday morning there was another vender already set up on about half of it. We set up 4 of our 8' tables with the Wheel of Fortune on one, samples

of the local minerals, fossils, and rocks on another, and rocks for sale on the others. The scholarship donation jar was set up and collected \$44.17 for the scholarship fund. The Wheel of Fortune did well, we put minerals, agates, fossils, and a few polished rock on it and most seemed satisfied with what they won. Not many rocks sold, maybe \$10-\$15 worth. In the three days we collected \$237.04, mostly from the Wheel. My estimate at \$.25 per spin is about 850-900 spins, that's about 275-300 spins per day.

A BIG THANKS to everyone who helped set up, man the booth, and tear down. It was hot and a lot of work, but good company and promoting our hobby is always fun.

Crinoids and Tube Coral

by Joe Barreca



Large Tube Coral on the left smaller on the right

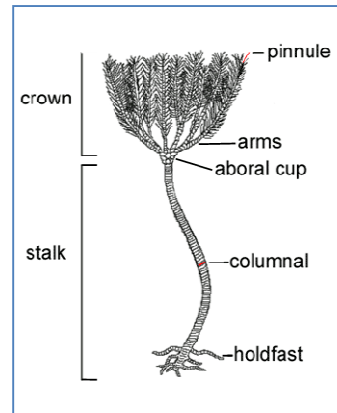
Just when you think that all the cool rocks in Northeast Washington have been discovered, something entirely new happens. That is the case with some fossils found in the chunk of the Slide Mountain Terrain that is in Stevens County. I can't go into specifics on the location because I promised that I would keep that a secret for awhile. The discoverer and my guide made me promise that when we met to visit the site. He has sent some samples to the Burke Museum in Seattle and they are coming out to look at the site. Since the location of each fossil is important in interpreting the site, it will not be disturbed without their input.

Crinoids are marine animals that make up the class Crinoidea of the echinoderms. The name comes from the Greek word krinon, "a lily", and eidos, "form". They live in both shallow water and in depths as great as 9,000 meters. (Wikipedia)

The living organism looks like an underwater palm tree, but what you find in the

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petrified fossil is often a round cross-section of the trunk. The fossils are in a hard dark metamorphic rock. It can definitely be cut with a rock saw and it looks like it will take a polish. I will bring some samples to the rock club meeting so you can check them out. It is hard to say when or if we will ever



be able to get out and collect more ourselves. Getting there is not for sissies. You can't drive right up and there are some steep slopes involved.



Cross-sections of crinoids next to a rock hammer

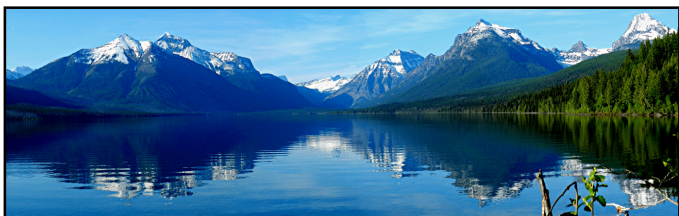
The tube coral are generally larger than the Crinoids but often broken up. Finding one as complete and large as the big one in the first picture is a real prize. Someday I hope we can do that.

Chips From The Outcrop

By Bruce Hurley

Lately there have been several news stories predicting that all of the glaciers in Glacier National Park will melt due to global warming by 2050. And these predictions are not nearly the first, as the glaciers in the park have been noted to be melting for at least a century. But even though the glaciers are indeed melting, the topographic features they have produced remain behind. And Glacier National Park is worth seeing, from every direction.

Glacier is a park which owes its special scenery not only to heavy glaciation but also to the special type of rocks of which it is comprised.



Lake McDonald

These rocks are sandstones, siltstones and argillites, which were deposited along the ancient west coast of North America approximately one and one-half billion years ago, and were mildly metamorphosed over subsequent ages. This group of rocks is known to geologists as the Belt Supergroup, and is found over most of the Canadian Rockies in Alberta and adjacent British Columbia, along with western Montana, northern Idaho and into northeastern Washington. At their greatest thickness, the Belt rocks are estimated to have been as much as 60,000 feet thick. These rocks are resistant to chemical and mechanical weathering and erosion. Nature has taken this thick pile of extremely hard, durable rocks and sculpted them with alpine glaciers, to produce some of the most spectacular mountain scenery anywhere.



Hanging Valleys, An Arete Wall & A Horn Peak Above St Mary Lake

Pretty much all of Glacier National Park is scenic, but the Going-To-The-Sun Road, open only in summer and early fall, is a drive not to be missed. It begins near the foot of Lake McDonald at the west entrance of the park, climbs nearly 3500 feet, between horn peaks and glaciers, to reach Logan Pass, then drops over 2000 feet down the St Mary Lake valley. The road ends at the east entrance of

the park at St Mary, after 55 miles of great mountain scenery across the heart of the Northern Rockies. And just like that, a few miles further east and you are onto the vast flatness of the Great Plains.

And why do these mountains jump up so abruptly above plains? Because back in Cretaceous time, compression was produced when the tectonic plate beneath the eastern Pacific Ocean began sliding beneath the western edge of the North American Continent. This pressure caused the rocks between the west coast and the Great Plains to buckle and deform under the great stress. Because the block of Belt Supergroup rocks west of the present Glacier park area were thick, hard and massive, they held together, and were pushed as a single mass over the younger, weaker rocks of the Great Plains. As much as sixty miles of this part of the Rocky Mountains may sit atop the former surface of the Great Plains. Even the geology of Glacier National Park is spectacular.



Peaks Above the Plains and the St Mary River

Workday Works Out

by Johnie Pitman



Membership Dues:

\$20.00 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).

Wow!!! We now have 33 tables that are totally ready for our next show or any other occasion that anyone might need one or all of them. Thursday, August 10, at Johnie and Ginger Pitman's starting about 9:00, 10 of us older young fellows with saws and drills and other devices started cutting plywood into pieces that will hopefully fit together and stand up for tables. Each piece was painted with our club logo. We cut out 18 table tops, 54 rails and 54 legs, the legs and rails each have two slots that have to be located very close to the same for a good fit. The job was finished and cleaned up shortly after noon. The guys who did all this were Martin Whitney, John Hall, Dennis Gibbins, Jim Peters, Jim Nance, Arden Fritz, Maurice McPherson, Scot Jackson, Bruce Hurley, and Johnie Pitman. Thanks to everyone!!!

Annual Pot Luck 6 PM

Our annual BBQ and potluck meeting will be held at 6PM on the lawn of the Arden Community Center where the club meets. Bill Allen will bring his barbecue and be grilling up some burgers and hot dogs provided by the club. Bring any kind of fixings or side dish that you want.

Also it is a good idea to bring a folding chair of your own. We have a short meeting before we eat and after that we have a tailgate rock trading party. So bring your best trading rocks

Thank you Ginger for the cold drinks, Watermelon, and ice cream bars.

The club still has about 15 sheets of plywood left and they are for sale at \$19.50 each. Please let me know if you are interested.

Rhubarb Cleans Iron Stains



Before and After soaking in rhubarb juice.

Panorama Gem and Mineral Club: Organizational Chart

Officers:			
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	294 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:	Sherryl Sinn	725 S. Chester, Colville, WA 99114	509-684-6093
Committee Chairs			
Program Coordinator:	Bev Bockman	1750 N Havichur Loop, Post Falls, ID 83854	208-773-5384
Hospitality:	Sherryl Sinn	725 S. Chester, Colville, WA 99114	509-684-6093
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