

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

October 2017

Panorama Gem and Mineral Club Minutes September 16 2017

by Anni Sebright

President Bruce Hurley is back and can see like an eagle.

Colton, Logan and Jennifer ?Swagle? (I didn't get the correct spelling) were welcomed to the meeting and were also the winners of the monthly drawing.

Bob Bristow reports that Chewelah Peak received its' first snowfall.

Enough plywood was purchased for 33 tables with sizeable remnants left over and can be purchased. (All pieces spoken for during the meeting.)



Discussion about scholarship winners and a member of the press invited when scholarship checks are presented as in the past was tabled for now.

Brian Daniels, Gene Fisher and Johnie Pitman, operating as the nomination committee, will be making the rounds of members looking for volunteers for a Trustee position, Secretary and President. Please consider holding an office with tenure starting in December.

Auction items are needed for November's Scholarship Auction.

October starts our 6 p.m. winter schedule meeting time.

Members with surnames beginning with "B" and "C" are asked to bring snacks to the October 16th meeting.

end

Geology Snapshots - Hwy 395 from Arden to Deer Park

by Sharon Borgford

PART 10 Deer Park Basin Part 2

Geology not only determines the surface appearance of the landscape around us, but also affects the soils, water, and other conditions that determine what use can be made of it. In reviewing Spokane County Soil Surveys of 1921, 1968, and 2016, the soils are listed as derived from glacial lake deposits and intermittent glacial flood outwash, with some volcanic ash (from Glacier Peak and Mt. Mazama) and wind deposited loess (fine grained silt) in the upper parts. The area was covered by forests until the end of the 19th century.

The Stevens County Soil Survey of 1915 specifically mentions that the Clayton category of soils contain angular particles, indicating they have not traveled far from their source. The survey also mentions glacial granite boulders on the surface - several examples are found on my parent's farm, located between Clayton and Deer Park along Hwy 395. The granite boulders are several feet in diameter and have to be avoided when doing field work. Some cracked boulders were used as



Photo credit: Sharon Borgford

foundation blocks for an early 1900's barn that existed on the property. More granite boulders are found on other properties in the area.

The label "Basin" describes the broad open plateau surrounding Deer Park. It is bounded with low mountains on the north, west, and south, and rises slightly to its eastern border, where the topography descends down to the Little Spokane river valley that roughly parallels Hwy 2. Dragoon Creek and its tributaries drain the basin.

A brief summary of the rocks under the Deer Park Basin is as follows:

Metamorphic Bedrock and Intrusions - The Old North American Continent rocks with their younger granitic intrusions are the bedrock in the whole basin. After the intrusions cooled, there followed a time of erosion and uplift. The formations were eroded into an uneven surface that changes quite a bit throughout the basin, as is indicated by the varying depths to granite bedrock in water wells.

Columbia River Basalts and Latah Formation - These both formed concurrently as the basalts spread from the southwest, blocking stream drainages and creating lakes as described in the Clayton article. There were many flows, each of which has its own chemical signature which enables identification. The Grand Ronde basalt series was one of the largest and spread the farthest, and is the flow that underlies the basin. The Latah Formation sediments began accumulating prior to the arrival of the Grand Ronde Basalt. As the succeeding flows buried each new layer of sediment, the two formations inter-fingered and can be found at various levels all the way to bedrock. Plant remains are common in the Latah formation in places. "Pieces of wood and even tree trunks have been found during well drilling" (Cline, 1969). While drilling a well on our farm in the 1960's, several feet of wood were brought up by the drill and its source remained a mystery until finding this information. The Latah formation is not exposed on the surface in the Deer Park Basin except for the few clay sources near Clayton, but frequently is encountered in water wells.

Glacial lake and flood deposits - Any area below 2350-2400 feet would have been a part of Glacial Lake Columbia/Spokane that existed prior to and during the Missoula Floods. Layers of fine sediments were laid down in the lake bottoms in

between floods, and coarser sediments during the floods. When a flood would dump into the lakes, it was like suddenly dropping another bathtub full of water into an already full tub - the overflow overtopped the southern sides of the basin and continued on across the state. The floods could surge as high as 2700' (Newman Lake, Spokane). Since the retreat of the lakes, winds have blown dust into the area to help create soils, volcanoes have added ash, and water has eroded the surface into its current shape.

One mile south of the town of Deer Park, Hwy 395 descends onto a flat area. As you start down the slight hill, the Columbia River Basalts make their scattered appearance in the road cuts on either side. Just out of site of the highway to the east is a large basalt quarry. Down on the flat, N. North Road angles to the east of the highway. This is a section of the old Hwy 395 route that passed through the nearby town of Denison, which now only consists of a community of homes.

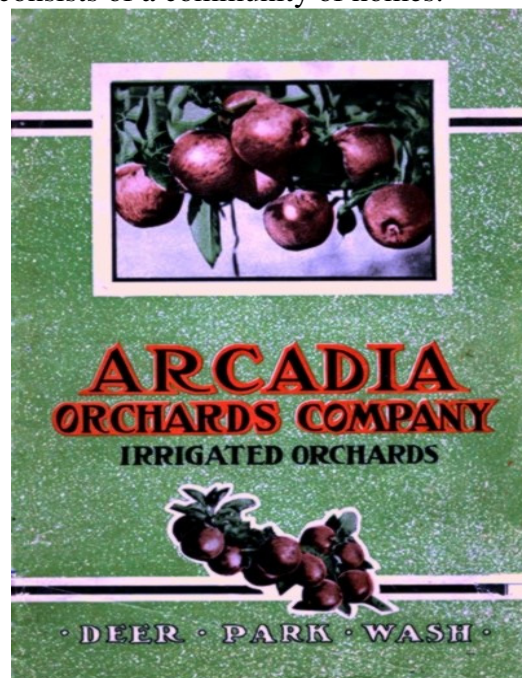


Photo courtesy of Clayton-Deer Park Historical Society.

In the early 1900's, promoters began advertizing the "magical" growing conditions in the Spokane Valley for fruit orchards. My grandparents were one of the families who moved from the Midwest in 1910 to take advantage of this opportunity. Irrigation wells dug into the Spokane Valley-Rathdrum Prairie Aquifer provided ample water for this endeavor. The Deer Park-Denison area was also targeted; however, there is no

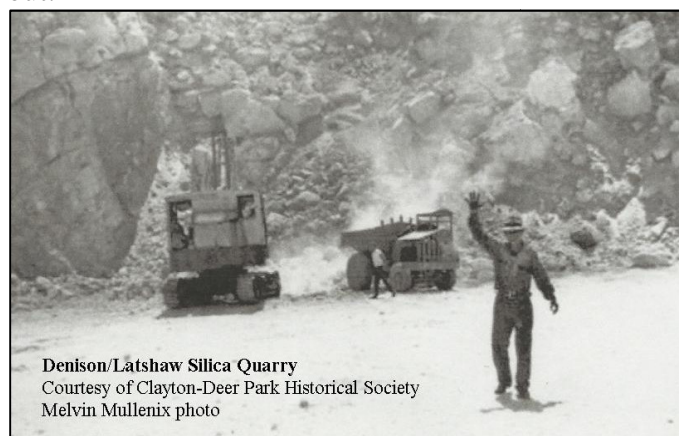
significant underlying aquifer here, so water had to be obtained elsewhere.

Miles of viaducts were built from Deer Lake and Loon Lake to supply water. Acres of apple orchards were planted, primarily to the east of Deer Park and here near Denison. The 1921 Spokane County soil survey mentions that there were 6000 acres of orchards in the Deer Park/Denison area in 1917.

From the top of the hill to south of the Staley Rd/Hwy 395 intersection you would have been on Arcadia Orchards land, with apple orchards stretching to the west. The enterprise was plagued by multiple problems. The expenses of the extensive viaduct system, land, tree stock, marketing, wages, and smudge pots were never recovered, and the company closed in 1924. A few remains of the viaduct system are visible along some of the county roads, and some of the apple trees still survive, even after 100 years of having received no special care.

(The Spokane Valley orchards also failed, partially because the coarse gravel soils left by the Missoula Floods nutritionally could not support the large orchard trees for very long. Small berry or vegetable farms were more appropriate, and these became my grandparent's livelihood instead.)

A more successful business that involved Denison was a Silica mine located about 5 miles to the southwest. Denison was the closest railroad siding, so the powdered ore was trucked there and shipped out. One of the destinations was to England where it was used in glassmaking. The ore was first mined and used during World War I. The quarry was under various ownerships and was active until the late 1950's when the vein was mined out.



Denison/Latshaw Silica Quarry
Courtesy of Clayton-Deer Park Historical Society
Melvin Mullenix photo

The quarry name was "Denison" or "Latshaw" and located in a hill near the south border of the Deer Park Basin in an outcrop of one of the granitic intrusions. The quartz was white to clear and almost pure Silica. (Coffin, 2012)

In addition to the soils, other glacial features include outwash channels, large deposits of sand and gravel, and sand dunes.

Hwy 395 passes through a small dune field approximately 1/2 mile south of the Denison-Chattooy Rd intersection. The sand dunes were deposited by wind blowing the glacial silt after the glacial lakes dried up. The dunes are now covered with grasses, but were more exposed only a few years ago.



Photo credit: Sharon Borgford

We have completed our journey from Arden to Deer Park - I hope you enjoyed the trip. Having grown up in this location, I learned a lot about features that I have been curious about for a long time, and appreciate the area in which we live all the more.

It has been suggested that I continue on to Spokane, so there will be one more article that takes us all the way to the Wandermere/Dartford area just north of the city. This last article will talk about what happened to all the water that once covered the Deer Park Basin and Little Spokane River Drainage System, and include a map of the features.

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Johnie's Jabber

Johnie Pitman

The last of the scholarships has been paid, Hayven Geary was the winner from Kettle Falls.

The last of the left over plywood from making our tables has been sold.

The rent for the Arden Community Hall has been paid for another year. The following is from the Arden Community Hall Rental Agreement:

1. Absolutely no smoking or open flame candles inside the hall.
2. Do not block any hallway or doorway.
3. Do not put staples, nails, or tacks in the walls.
4. You are responsible for any damage to the building.
5. Never leave the building unlocked unless an adult attends it.
6. Inspect the building before you leave the premises, this includes, check all windows to make sure they are closed and locked, the window blinds

down and tilted so the sun will not shine on the wood floor, close the doors to the rest rooms, clean the counter tops and haul the garbage out with you (failure to remove garbage will result in additional charges).

7. Floor care:

- A.) Mop all vinyl tile floors, mop is in the broom closet, leave the mop upright to dry.
- B.) Never use the wet mop on the hardwood floor, sweep clean with dust mop in the broom closet.
8. Leave the thermostat set to the far left where the nail is inserted.
9. No parking on the lawn.
10. Nothing is to be put on the overhead fan blades.
11. Leave sixteen (16) chairs out along with four (4) tables. The remaining tables and chairs must be stored in the back room stacked in the rolling carts.
12. Empty the refrigerator.
13. Replace all plastic garbage bags with new bags found in the closet.
14. The hall is not to be occupied after 2:30 AM.
15. Look around the hall for various posted instructions.
16. The sale of alcoholic beverages is prohibited at the hall.

The club has agreed to these conditions, so let's continue to be good stewards. The only change is the 16 chairs left out instead of 8.

The November auction to raise money for the scholarship fund is just around the corner, so start saving a little funds for that. I don't have very many items from the previous donations, so if you have something to donate bring it to the Nov. meeting.

October is officer nominations, consider how you can help.

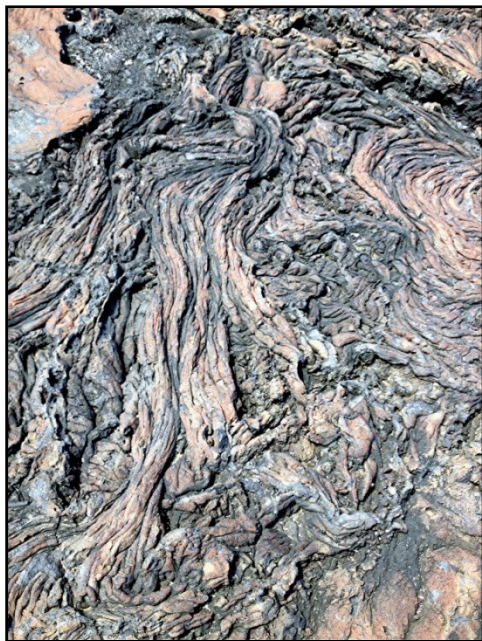
Chips From The Outcrop (Part 1)

By Bruce Hurley

I cannot think of many bad reasons to go to Hawaii, and two of the best are a 40th Anniversary trip and meeting your children there. And, of course, there is the world's most active volcano, on the Big Island of Hawaii.

The Big Island is composed of five volcanoes. Kohala is an extinct volcano which forms the northern peninsula of Hawaii. Mauna Kea to the southeast is dormant, and rises over 30,000 feet from the ocean floor to

reach 13,796 feet above sea level, making it the tallest mountain on Earth. The smallest volcano, Hualalai'I ("Hoo-wala-lie-i-i") lies along the Kona coast to the west, and is still active, having erupted last in 1801.



(Courtesy of Wikipedia)
Ropy Basalt
from 1801
Hualalai'I
Eruption

Mauna Loa comprises the majority of the Big Island, and itself contains more land mass than the rest of the Hawaiian Islands put

together. This great shield-shaped volcano is also the largest in the world, and remains quite active, having last erupted in 1984.

The youngest of the Hawaii volcanoes is Kilauea, which makes up the southeast corner of the Big Island. Along with its main crater, Kilauea also includes the Pu'u O'o

("Poo-oo Oh-oh") eruptive cone, a few miles to the east. Pu'u O'o was formed by

eruptions from the east rift (open fracture) zone of Kilauea, beginning on January 3, 1983, and has erupted continuously ever since. The Pu'u O'o cone is now approximately 830 feet high, and liquid magma may be seen inside its central cone, but only from the air. Sulfur deposits from magmatic gases are also present in Pu'u O'o. Magma from the rift zone also continues to flow southeast via a system of lava tubes, and eventually emerges as flows which reach the ocean at the Kalapana shore.



Pu'u O'o Cone



Sulfur Deposits in Pu'u O'o Crater

(Many thanks to Bruce for this article, which is longer than we have room for in this issue. So it will be continued in the next.)

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).

Hoodooos

by Deborah Danielson

In August, Mark & I traveled to Bryce Canyon in Utah. We had to see the famous "hoodooos" we'd read so much about. Once there, amazement, wonder & awe were words that came to mind. The rock formations were like soldiers standing at attention.

There's actually several rock types, including siltstone, & mudstone, but mostly limestone. 30 to 40 million years ago this rock was in an ancient lake in Utah.

Come to find out, there is a difference between a hoodoo, a spire, & a pinnacle.

Hoodoo shapes are affected by erosion patterns of two weathering processes that

continuously work together in eroding edges.

So when we were traveling recently through the Columbia Gorge on the Washington side by Stevenson, Lyle & Maryhill - I was pleased to see the gray spires there on the hillsides jutting up like many I saw in Bryce Canyon - minus the color.



Many formations of "soldiers" looked like they could have been formed by melting snow that seeped into cracks causing the rock to pry open - just like in Bryce Canyon. Interesting to see & contemplate about the comparisons of both state's rock formations. Loved the HOODOOS !

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