

Place: **Arden**
Community Club
Hall Rd
Arden, WA



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

The Panorama Prospector

July 2010

Panorama Gem and Mineral Club

Minutes for June, 2010

By Ginger Pitman

With 37 members attending everyone seemed delighted with the committee's choice for our new meeting hall. Johnie read the rules for the Arden Hall, so we can all help to keep it clean.

The Orient school is having their 100th year celebration and even though Steve was not there we elected him to do the geology of the area display they asked us to put together. Hope he approves.

Dave Paquette would like to get a group (30 people) to go to the Spencer Opal mine; with enough bodies the group can ask for a day at the mine itself. The cost would be \$50 each. He thought maybe in Sept, so with a show of hands we had 12-15 people interested.

In moving our library; Bill and Johnie sorted books and magazines. The books are in the cabinet in the back room and the magazines will be sold at our silent auctions at the meetings and the show.

The field trip to Saddle Mt. was a good one with 16 going and sharing the collecting area with a large group from the Seattle area. Greg knew where the good wood was found; so everyone got some good pieces, BLM rules say 25 pounds plus one rock, a successful day. Johnie asked, for members if they don't have one, to pick up a handout entitled "A Rock Hounder's Code of Ethics".

After selling the assigned number of raffle tickets for the field UV light the ticket drawn belonged to Nena Wright. Congratulations!

Refreshments for the next meeting will be furnished by Kathy and Suzanne.

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On Top of the Keystone

Pictures & Story by Joe Barreca



Well, sometimes you just don't know where the road will lead you, or in this case, on June 27th where Rex would lead a bunch of us. At first I was behind the pack because I stopped for gas back in Chewelah. After some serious wandering and dropped cell phone calls, I got going up Klines Meadow Road. It looks like a driveway to the left at the beginning of Red Marble Rd. Thinking I would see a lot of tire tracks where the rockhounds turned off to the Keystone, I passed up the road pictured here. There was no way I was going to squeeze through those trees without fresh tire tracks in sight. At my wits end (not very far to go evidently) I headed back down the mountain, only to run into a whole caravan of rockhound rigs coming up the hill straight at me with Scott and Rex in the lead. Sure enough, the first thing they did was turn down this road. Pretty soon the whole string of us was stopped dead in the middle of it, bumper to bumper with no way to turn around. A little exploring found the leaders chainsawing a tree out of the way. On we plunged into the heart of darkness...

Minutes from page 1

Wanting to show our thanks for the 13 year use of the union hall at no cost to the club, it was voted on to send a \$300 check to the union, it passed with only one objection. The CIC Local 1136 Union has always been helpful and a big reason our club was able to get started in 1996 when we had no money to pay for a place to meet. A big THANK YOU to the Union for their generosity.

An August picnic/meeting was approved; to be held at the Arden Community Hall. The club will furnish the meat and the drinks, the rest will be potluck.

Mike Latapie will be doing the program for the July meeting showing how to pan for gold. *End*

It turned out of course that we had nothing to worry about. A few rigs had to charge the hill on the way out, but hidden down in this thicket were the bottom workings of the Keystone Mine.



Around us were twisted pieces of soapstone and rusted pyrite crystals embedded in green rocks. People were clamoring over the rubble and loading up their buckets.



The green light in the lower left of the last picture is a reflection of the opening of another tunnel in the water at the bottom of this cave. Jerry Novak's dog Rusty, had a good time here, but we were soon headed onward and upward to the top of the Keystone.



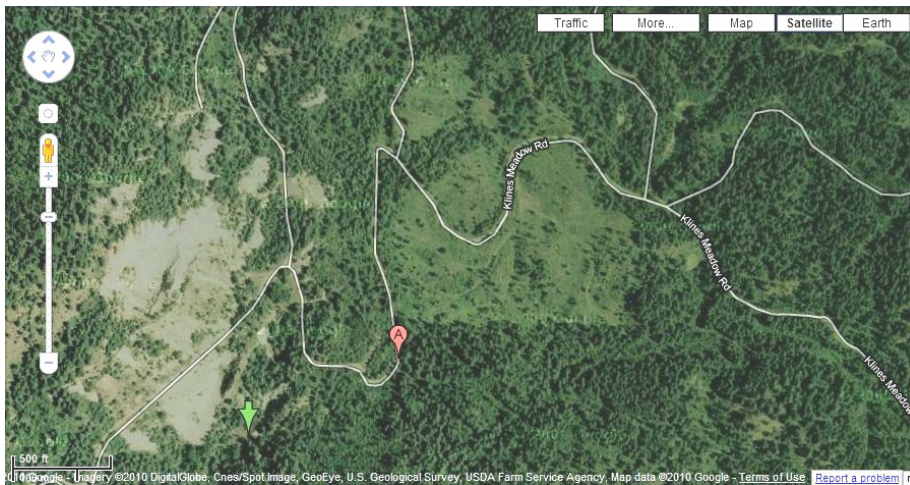
[Here's Jerry Novak looking out at Waitts Lake]

Well maybe it was the scratchy brush, or the rocks sticking up in the road or the shear dropoff, but not all the cars made it to the top. Those that did were treated to this view of Waitts Lake. They used to dump the waste over this shoot. There is also a good view of Red Marble Quarry from here and the Lane Mountain Silica mines. A tram line ran first to the Keystone from the magnesite plant in Chewelah. Rex Barrans, who was leading the expedition worked at the tram station 200 feet below the quarry. Ore was sent down to bunkers and loaded into tram cars.

These were not good memories for Rex. He was working in the tram station with Russ Danielson when Russ accidentally flipped the wrong lever and released a tram that shot out straight into him. Russ died right there long before any medical assistance could arrive. That wasn't the only mining accident Rex told us about, but it's enough for now. Mining can be deadly.

The rocks on top are magnesite, white, dark gray, white and black striped... but most have a crystalline structure that reflects light off the many crystal faces. It may be possible to grind it down and polish it into some nice pieces. They make good garden rocks at any rate. It's a long way to go though for garden rocks, actually I measured it at about 3 miles from the junction of Red Marble and Waitts Lake road where Klines Meadows Road begins. On the way up you stay to the left when the main road forks. There is a

road that cuts across the face of the quarry that we didn't take. The coordinates at the top are N48.19898 W117.90889. If you enter these in a Google search and chose to see a map. You get something like this:



The little green arrow at the bottom left is near the bottom caves. The bare spots north of it are the quarry. The fork above the "A" is where the Keystone road veers off from Klines Meadows.

The club met for the first time in the new meeting spot, the Arden Community Hall. There are maps in the last newsletter and on the website. Everyone seemed to get there just fine and loved the clean spacious facilities with a full kitchen and

nice bathrooms. Johnie Pitman started off the meeting by reading a rather long list of instructions about how to clean up after each use and maintain the building. Then he launched into a little lecture on the Rockhoulder's Code of Ethics. Actually the point he wanted to make was that it is not good practice to take more than 25 pounds of petrified wood, or other collectable materials from the same site on the same day. That is a more exact interpretation of code number 11, "I

WILL cause no damage to collecting material and will take home only what I can reasonably use." I will get the whole code up on the website, so you can look it over.

New Digs *By Joe Barreca*



[The new Meeting Hall]



[Here is the inside. It's worth keeping up.]

The Crystal Prospect *Pictures by Miriam Clark*



I didn't go on this field trip, but we have something like 30 pictures from Miriam Clark from the dig. The club has not gone up to the Crystal Prospect for several years. In the meantime, it has been logged over. When they went up there on June 13th, it was still pretty wet down in the ground, so they found themselves running into the water table at shallow depths. The site is up Olinger Rd off Allen Rd off the Hunters-Springdale Road. I don't have more exact instructions than that though I do know that you need a permit for each car on this Inland Paper property which you can get for \$10 at Levi's Mini-Mart in Deer Park.

Here is a picture of one well-prepared rock hound. I'm sorry that I can't identify him right off.



All of which I am going to use to make a point here. It is WONDERFUL to get pictures of field trips to use in this newsletter. It is helpful to narrow them down to the best 4 or 5 pictures. It is very helpful to identify people, places and things in the pictures. It is SUPER if you can include a little narrative about what happened on the trip. Email them directly to Joe.Barreca@gmail.com. This makes life much better for ye olde newspaper editor. Speaking of which, Steve Fox sent this article on metamorphic rock.

Metamorphic Rocks

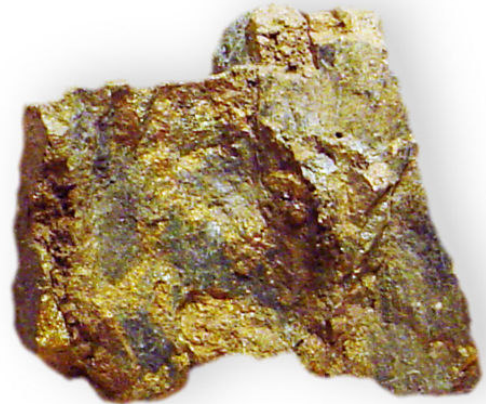
By Stephen Fox

There are three main types of rocks, igneous (intrusive-large crystals and extrusive-small to no crystals), sedimentary (any rock exposed to the beating of weathering and the resulting grains mashed or glued together), and metamorphic (existing rocks that are squeezed, heated, and chemically altered). About seventy percent of the Earth's surface is sedimentary rock, about twenty five percent of the surface is igneous, and only five percent is metamorphic. Fortunately for us we have a lot of metamorphic material in our area. So why are we so special?

We have a lot of metamorphism because many millions of years ago the Kootenay Arc, an island continent (think Japan), smashed into the North American continent (geologically speaking a slug moves at near light speed). This caused upheaval,

squeezing, cracking, extreme pressure, moving, and general mayhem with the existing rocks on both sides of the contact. Not to mention some serious chemical mayhem. This created regional metamorphism, which is over a large area. This area also got a lot of igneous activity, both extrusive and intrusive. This created contact metamorphism, which is very localized and can create some very interesting rockhounding opportunities. The next question would be, "Didn't all of this get buried by sedimentary stuff?" The answer is yes it did. But about three million years ago we had the start of an ice age. Depending on who you talk to this ice age ended about fifteen thousand to twenty thousand years ago. There was an enormous amount of ice that brought material (erratics) and scraped off a huge amount of stuff and sent it mostly south. This action exposed most of what we see in our area. (This is the shortened version. For a more entertaining and in depth version see the old PBS series 'The Making of a Continent', there are two-six part series).

There are a variety of gems, minerals, and very nice yard rocks that are produced by the action of metamorphism. The most common type of metamorphic rock recognized is slate. Slate is a low-grade metamorphic shale. It is used as blackboards, a covered surface for pool tables, and roofing materials. Sometimes garnets, iron pyrite, or andalusite will be found with slate.



[Chalcopyrite-Chlorite-Schist Metamorphic rock]
picture from Wikipedia Commons

Another type of metamorphic rock geologists and rockhounds are always looking for are 'Schists', because they can contain a variety of minerals from actinolite to zoisite, with a lot of the alphabet of minerals falling in. The term

'schist' is more descriptive than a specific type of rock. A schist is uneven-granular, medium- to coarse- grained, crystalline, with prominent parallel mineral orientation (Audubon Society Field Guide to Rocks and Minerals). Which basically means that you can see the grains, they are of differing size, and are generally lined up. Schists are generally named for the minerals that are associated within the rock. Examples would be: garnet schist, chlorite-epidote schist, biotite schist, etc.



[Gemstone Green' Marble Floor Tile – Image from bargain-outlets.com]

One of the more common types of metamorphic rocks this area contains is marble. The normal color of marble is white, especially if it metamorphosed from pure calcite-dolomite limestone. But, as in all nature nothing seems to be really pure. Accessory minerals will produce a variety of colors, examples being: carbonaceous matter creates black, diopside and serpentine will create a green, hematite gives us red, and limonite creates a yellow or brown marble. Uneven distribution of these substances will cause color spots, blotches, or vein-like patterns, which is an effect that is described as 'marbled'. Some of the associated minerals with marble are apatite, brucite, fluorite, hornblende, spinel, and zoisite (space and time does not let me list all of the associated minerals).

Those metamorphic granites that are really hard and show a lot of folding are called gneiss (nice). This is just a descriptive term for a variety of foliated rocks. If it looks like granite but is harder with the layers folded or generally wavy, it is usually a gneiss.

The metamorphic range of rocks with their associated minerals has just been touched on with this article. This is also true of the igneous and sedimentary articles. I have not tried to be comprehensive, but to just give you an idea of
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what you will encounter out rockhounding (besides flying rock chips, irritated marmots, and curious bears, just to name a few). So the next time somebody hands you a rock and says, "What's this?" You can reply with a lot of authority and a knowing smile, "No clue".

Sources; The Audubon Society Field Guide to North American Rocks and Minerals, Chestermann and Lowe.

The Larousse Guide to Minerals, Rocks, and Fossils, Hamilton, Woolley, and Bishop
Manual of Mineralogy 19th Ed, Cornelius, Hurlbut Jr., Cornelis, and Klein

Horseshoe Mountain

Picture by Harold Ingram



Here is a happy rockhound with a small cluster of quartz crystals from the Koepke site on Horseshoe Mt. off Trout Creek road in Ferry County. There is a long article about this site in the August 2009 Panorama Prospector on

our website, www.panoramagem.com.

Upcoming Field Trips

July 25 — Sullivan Lake — Soapstone –hard rock tools –cars with good clearance – meet at Colville Safeway parking at 9AM

Aug 8 — Kelly hill — White Rock Quarry –meet at Harvest foods in Kettle Falls at 9 AM

Aug 22 –Gladstone Mt –Galena, Dolomite Crystals –hard rock tools , 4wd only – meet at Colville Safeway parking at 9 AM

Remember to check for last minute updates on www.PanoramaGem.com.