

DUSTY ROCKS

OCTOBER

2012



ROCK AND ARROWHEAD CLUB

P.O. BOX 1803

KLAMATH FALLS, OR 97601

www.klamathrockclub.org



DUSTY ROCKS

~ Rock and Arrowhead Club ~ Klamath Falls Oregon



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Member @ Large: Marvin Stump

The club mailing address is:
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Meetings are held at the Klamath County Museum Meeting Room – Main & Spring Streets, using the *West* entrance. **Meetings are held on the 2nd Monday of each month at 7:00 pm** with the exception of

December when we have our Christmas Luncheon and Party and April after the show.

Visitors are cordially invited:

Dues are \$13.50 per year per adult (\$25 for families plus \$1 per child), \$7.50 ages 16-18.

General Objectives of the Club:

To promote popular interest, knowledge and understanding in the various earth sciences, as in Geology, Mineralogy, Paleontology and Lapidary and other related subjects. To sponsor and provide means of coordinating the work and efforts of all persons interested therein.

Helping Others:

The club participates in the NFMS stamp program, saving large commemoratives, airmail, pre-canceled, and foreign stamps of all values. Proceeds from stamp sales will be used to benefit any charity deemed worthy by the NFMS Endowment Fund.

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Committee Chairs

- ↔
- Sunshine.....Chris Chance
- Program.....Marshall Curran
- Greeter/Door Prize.....needed, please
- Refreshment.....Chris Chance
- Historian.....needed, please
- Librarian.....Jessica Limb
- CharityJohn Long
- Claims Rep.....Garwin Carlson
- Field Trips.....Marshall Curran
- Black Light DisplayChuck Newnham
- Show Chair.....Garwin Carlson
- Asst Show ChairMarvin Stump
- Safety Officer.....Jeff Eastburn
- Publisher/ Webmaster.....Denise Sebastian

THE NORTHWEST NEWSLETTER is published 11 times a year. Copies are sent to each member's household. The cost is included in your annual dues.

Two free copies of the **AFMS NEWSLETTER** are mailed to each member club. Subscriptions are available at \$3.50 for 9 issues. Send payment to:
American Federation of Mineralogical Societies
PO Box 26523 Oklahoma City, Ok. 73126.

- We are affiliated with**
- Northwest Federation of Mineralogical Societies
 - American Federation of Mineralogical Societies

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Visit Us At www.klamathrockclub.org

Please e-mail nicee1214@gmail.com to get on our email list.

Reference to use of arrowheads within our club is limited to flint napping activities during workshops, annual shows and personal creations. No gathering of arrowheads on field trips is authorized or suggested by any club members.



Minutes

September 10th, 2012 Meeting Minutes *Submitted by Vicky Davis*

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Meeting called to order by President Jeff Eastburn at 7:03 pm. Pledge of Allegiance

Guests: Brian & Clarissa Wade Total Number in Attendance (40)

Door prizes won by Farisee F. and Reliei B.

Birthday Contributions: Were collected by those whose birthdays fall during Sept. These funds are used for annual Christmas party.

Minutes approved. Motion made by Barb M., seconded by Don P.

Treasurer's Report: Tourism grant is being worked on. Grant for March show being filled out this month. Sunstone claim bill has arrived. Motion to pay the bill was accepted. Postage stamps have been purchased.

NWF Report: Kathi reports all ads for upcoming show are in place for Fed. Newsletter. Suggestion to list show one month in advance on Craigslist.

Historian Report: None

Editor Report: A request to make a correction on page 6 of Sept newsletter, Artisan Show month date was missing. Should be October. Request to keep newsletters to a maximum of 5 sheets of paper, in order to keep postage costs reasonable.

Webmaster Report: New brochure should be online soon. Denise & Sandi are working together with photos received and posting them on website and in newsletters.

NEXT MEETING:

October 11th

- 7:00 pm
- Refreshments:

Don P, Leah & Marv

- Program:

Charity Report: John & Roseanne reported to Laura that club members voted on the following charity donations for the following months: Klamath Animal Shelter, May / Klamath County Museum, June / IYS, July / SMART, Aug / Klamath Hospice, Sep / Food Bank, Oct / High Desert Hospice, Nov / Fireworks Fund, Dec.

Librarian Report: Magazines available to check out. Black light is available to rent.

Old Business: Artisan Fair, October 27 & 28. 25 people have signed up for fair at Klamath County Fairgrounds. Anyone interest in selling items in addition to rock related, such as needlework, oil & watercolor paintings, baked goods, to name a few, please feel free to join Artisan Fair. Next meetings for the planning: Thurs, Sep 20, 6pm, IYS / Wed, Oct 3, 6pm, IYS / Mon Oct 15, 6pm, IYS / Wed, Oct 24, 6pm, IYS.

New Business: MEMBERSHIP RENEWAL TIME IS HERE. Please pay your dues. Kristen Sayles will be monitoring membership list. Thanks to Kristen. Date for first 2013 Annual Show Planning is Wed, Nov 7, 6pm, IYS. Anyone who is interested may attend the meeting. We are looking for a show coordinator. Marv has already contacted the dealers.





Minutes Continued from page 2

Trips: Virgin Valley with John Church was discussed. Don P. found nice opals, carnelian, dendrite agate were also found in nearby areas. Marv & Leah found black fire opal specimen, fire opal, candle from evergreen tree, petrified cone from evergreen tree. These items were on display. Those who attended Roseburg show said it went well. Chuck said Sept 15 & 16, he will provide markers to Juniper Ridge Opal Mine. Hwy 140, Quartz Mtn, Road 3715. Ed H. reported date for gold panning expedition has been set for Sept 29. You will need ¼" or ½" screen, sluice box, 5-gallon bucket. Camping is allowed 2-3 miles from Beaver Creek. Tent campground is accessible with 4-wheel drive. There is poison oak in the area. **DON'T DRINK THE WATER!!** Prospector's Meetings are held Wed, 7pm, Old Town Pizza on Main St.

Nominations for club officers will be discussed during October meeting.

Refreshments provided by: Tom & Cheryl Endicott and Ken & Marolyn Davis . Thank you!

Opal

October Birthstone

Considered the modern birthstone, opal is an ancient gem stone dating back to the Cretaceous period when dinosaurs roamed the earth. Formed as silica from decomposing rocks mixes with ground water which then forms a silica gel that collected and hardened in underground cavities and fissures, opal has two distinct types common and precious. The way the silica particles form determines which type.

Precious opal has silica particles are packed in regular rows and layers. Moving the stone causes light to diffract as it grazes the opal surface, this light diffusion shows iridescent flashes of colors often referred to as fire.



Happy Birthday

Alice Branson - Estacada, OR

Duane Fitzsimmons - Klamath Falls, OR

Ed Haas - Klamath Falls, OR

Elizabeth Haas - Klamath Falls, OR

Rachel Hawkins - Klamath Falls, OR

Dick Taug - Fairview, OR





The Rock Pile

Rock, Gem, Mineral Shows

October 6	Mountain Home, ID
October 12-14	Hillsboro, OR
October 13-14	Marysville, WA
October 20-21	Lewiston, ID
October 27-28	Canby, OR
October 27-28	Bellevue, WA

It's Election Time!

Forget Obama or Romney, its time to nominate and vote for our own candidates. October is time to nominate new officers! Do you want to run, do you think someone else should? Show up at the meeting to share your opinion and then come back in November to vote!



Dues are Due!



Have you paid your dues yet? Pay at the meeting or send them to the PO Box! Don't miss on the RAC fun.

RAC Charity Campaign!

The following charities were supported by RAC



- May - Klamath Animal Shelter
- June - Klamath County Museum
- July - IYS
- August - SMART
- September - Klamath Hospice
- October - Food Bank
- November - High Desert Hospice
- December - Fireworks Fund

The Rock Pile

Continued

Sunshine Report....

Darrell McCulley passed away recently, please remember the family in your prayers.



September 29th was a Gold Panning trip to Beaver Creek. For more gold panning information please attend a Prospector's meeting Wednesdays at 7pm, Old Town Pizza on Main Street.



Facebook Report!



I saw a Facebook report that the Juniper Ridge Opal dig on September 15th & 16th went well and everyone had lots



Artisan Fair October 27 & 28

Klamath County Fairgrounds

Applications available on the website for vendors wanting to offer quality gifts for the early holiday shopper.

Or please come to a planning meeting at IYS, October 3rd, 15th, and 24th at 6pm.

Flyers available for posting also!

Its beginning to look a lot like Christmas....

Come to our Artisan Fair to look for unique Christmas gifts.

Also keep in mind there is no meeting in December, we have our Christmas Party instead.

Start thinking of a potluck item to bring, plus one gift for our gift exchange and one gag gift for our robber bingo around \$10. So much fun, don't miss it!





Borax Mine, Boron California

By Jennifer Zimmerlee

What do tile, Play Do, the space shuttle, a measuring cup and mules have in common? If you guessed the fifth element (BO_3^{3-}) Boron, you would be right. How does the element Boron relate to all these items? Well on a recent trip to the Borax mine in Boron, California I got to learn all about this element and how much we use it every day without realizing it. I expected a quick trip in and out but ended up spending a couple of hours learning about the mine, the manufacturing process and the element during my visit and found it to be one of the more interesting mine tours I had ever done.

What is Boron?

Boron is everywhere, in soil, water, plants and animals in trace amounts. Boron as an element does not exist by itself in nature; it combines with other elements to create boric acid or with inorganic salts to become borates. Found in soil it is essential to plant life and through the plants becomes an essential element in our diet, it is also found in fresh water, and the atmosphere from an evaporation process from seawater, snow and rain.



Everyday items with borates

Extremely versatile, borates have unique bonding and structural characteristics, borates are not just essential in living things they are important in industrial applications helping to make our lives easier every day. A dazzling array of everyday products have borates as an ingredient, you have no idea how many times a day you use or depend on something that most likely has borates in it.

Used to help improve crops, treat wood to improve quality for building, and create insecticides. They balance acidity and alkalinity to be used in a lot of basic products such as detergents, help to make glass resistant to heat allowing you to have display panels on computers or tvs, tile, and ceramic glazes. Borates also makes a flux to remove impurities from metals allowing it to be corrosion resistant and stronger; is a main ingredient of fire retardant, improves fiberglass insulation, and it also captures neutrons allowing to help in nuclear shielding. The most commonly know usage; it improves the performance of cleaning products by buffering and conditioning wash water. Most people think of the name Borax when thinking of borates which is a mix of sodium borate and salt of boric acid but it is also the name of one of the major corporations that still actively mines the boron element in California.



A Borax crystal



The processing plant



Borax Mine, Boron California

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The open mine

The History:

In 1872 a borate deposit was discovered in California's Death Valley. To mine this deposit Borax used 20 mule teams that traveled 162 miles from the mine at Furnace Creek in Death Valley to Mojave, California for the nearest railroad point. Traveling some of the most forbidding land on the face of the earth there was no sign of habitation along the Death Valley trail that included a 60 mile stretch without water and where summer temperatures could reach 150 degrees. A one way trip took ten days from mine to railroad with the teams covering 18 miles a day. The wagon the mule teams pulled was built in Mojave and said to have been the strongest ever built with rear wheels 7 feet high, the front

5 feet high both with 8 inch steel tires. The wagon beds were 16 feet long, 4 feet wide and 6 feet deep. Each wagon weighed 7,800lbs and pulled an additional wagon that carried the 1,200 gallons of water needed for each trip. When fully loaded, each wagon weighed 60,000lbs and held 25 tons of boron, which equaled a railcar load of borax.

The mule teams were selected for their intelligence and trained to answer to their names and commands given by the driver or "skinner". The team had two lead mules, ten mules for the swing team that were the workers of the team, the pointers or the six mules trained to handle the turns and the wheelers, the two mules that helped control the brakes and stop the wagon and the rest of the team.

With one of the biggest and richest borax deposits on earth, the current mine started as an underground mine in 1927 in Boron, California and was converted to a surface mine in the 1950s with extensive facilities and a boric acid plant.

Today:

Listed as one of the best kept secrets, the Borax Visitor Center offers an informative look at the process of extracting the boron and turning into the impressive list of products that we use. It also has a really nice gift shop with cool rock stuff, a viewing platform on top of the visitor center that offers a beautiful view of the large pit where you watch the oversized equipment extract the element, a replica of the 20 mule team and best of all tailings. Yes, borates come in crystals and every week the mine adds to three piles (3 different styles of crystals mined there) of tailings that visitors are welcome to help themselves to. Trust me I did, and at the meeting there will be some on display and for the door prize.

I enjoyed my visit to the Borax mine and then went into the town of Boron to the 20 Mule Team Museum and the Colonel Veron P Saxon Jr. Aerospace Museum, I also enjoyed the town as it was where the film Erin Brockovich was filmed and just walking around I found some other nice rock specimens. If your travels take you to Southern California I would highly recommend a trip to Boron and don't miss Mojave and Tehachapi as well.



A display of borate crystals at 20 Mule Museum



Leaverites

by George Coursey, West Central Illinois Rock & Mineral Club

From: *Rock Chatter*, 4/2010

(Honorable Mention – AFMS Original Adult Articles)

This is a very important category of rocks. It is one for all new and experienced rockhounds to be familiar with. It was recently brought to my attention that several fellow rockhounds are not aware of these rocks. I will attempt to explain as I was told by Ray Bendrick, who was a charter member of the Pulton County Rockhounds Club and lifelong collector who always shared his knowledge with young and old alike.

Many of these rocks are at least 400 million years old and have various modes of formation. They can be found wherever a rockhound is collecting. They are usually interesting specimens in the field, but are not usually of the highest quality. They come in all sizes and colors.

The definition of "leaverite," according to Ray Bendrick and the dictionary is: "a term used by geologist and amateur rock hunters to describe a rock that is of interest in its surroundings, but once he gets home the collector decides he should have "leave-it-right-where-you-found-it". Remember when collecting, it is the quality of the specimen not the quantity.

I feel like an expert in dealing with leaverites, with rocks in piles both inside and outside our house. Some are in displays, some in boxes or crates, some are in piles outside the house and in the shop. Here is one of my best examples of leaverites that happened several years ago when Deb and I were camping out west (long before the current land use bill). We were trying out our hiking skills on a 14,000 foot high trail. All along the trail were interesting specimens of rocks not found in Illinois and, of course, I wanted the largest specimens I could carry in my backpack. As we were hiking up the mountain, I kept collecting and going slower and slower, but I was finding "great" specimens to add to my collection. The backpack was nearly full, and I had about come to a slow crawl since the air was getting thinner, and we are flatlanders.

We had come nearer the peak, and the climb was getting really steep in loose rocks, the same ones I had been collecting. We were determined to get to the top, but I had a decision to make. I could no longer keep going and carry my "great" specimens. Half-way up the steep trail, I shed my backpack on a marked area of the trail and left my specimens and backpack to complete the hike. Yes, the view was breath taking and well worth the climb.

What happened to the specimens? Well, when we came back down the trail, backpack and specimens were still where I had left them. I culled a few specimens there and found I needed to decide which ones to keep and which ones were leaverites as we went down. Oh, by the time we got to the car, both backpacks and our arms were full of specimens.

My lesson was just beginning on leaverites. Don't collect going up the mountain (or hill).



By Jennifer Zimmerlee

Rare California Rocks and Gems...

Morgan Hill Poppy Jasper

On my travels through California the rock everyone wants and brings the most interest is Morgan Hill Poppy Jasper. Morgan Hill is on Hwy 101 in southern Santa Clara County in the bay area of California. Once it was being actively mined or available to be picked up in several areas around Morgan Hill including a local park, it has become increasingly rare and often hoarded. Dispute of public and private lands, hostile land owners and bad experiences with people collecting this stone has left no place where you can pick up the rock without being arrested or shot at.



Morgan Hill Poppy Jasper is an orbicular jasper with poppy like blooms of bright reds, orange, yellows and whites, and has been compared to Madagascar Ocean Jasper. A brecciated jasper it comes from sun dried and oxidized iron rich clay. When looking through your collection look for Morgan Hill Poppy Jasper and know you have another rock on the soon to be extinct list.

The California State Gem, Benitoite

Found in San Benito County in Southern California, Benitoite is the California state gem. First discovered in 1907 it was thought to be a sapphire find but after further research it was discovered it was a new mineral specimen $BaTiSi_3O_9$. The mineral is thought to have been derived from surrounding wall rock during a phase of low temperature and high pressure metamorphism where the elements were to have been mobilized from the host rock and deposited in a late stage of cooling in hydrothermal fluids in veins fracturing the wall rock of serpentine. With gem quality material only being found in California it was proclaimed as the state gem on October 1, 1985.



With a rich sapphire blue with hints of violet it can also come in clear, white, pink and greenish-gray as well. It is strongly reactive under ultraviolet light which is often used to help mine the specimens. With its distinctive properties collectors often debate with themselves to keep it in its original state or facet it into a striking gemstone. At one time the mine was closed and then sold several times depleting the availability of this gem. Currently you can dig your own Benitoite at the California State Gem Mine in Coalinga CA where you can screen the tailings for a fee. Rare but beautiful if you get a chance make sure to add this unique gem to your collection.

