

Place: **Union Hall**
Meyers Street
Next to Campus Life
In Kettle Falls

The Mar 21st Meeting



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

Starts at 6:00 PM !

The Panorama Prospector

March 2006

Panorama Gem and Mineral Club

Minutes for February 21, 2006

Luci Bristow

Johnie called the Show meeting to order at 6:00 PM. We discussed the following subjects for the Show: Advertising – Sylvia Allen, Diane Lentz and Joe Barreca. Building – Johnie. Wheel of Fortune, Ring Toss, & Grab Bags – Rex Barrans. Dealers - All spaces were filled. Silent Auction – Ray Stoddard, Bob Adams and Joyce Dawson. Door Prizes - We have these set up well. Display Cases - Letter sent to Rock Rollers requesting use of their cases and tables. Johnie will need help in picking them up. Demonstrators - Rex Barrans – Rock Tumbler. Joe Barreca – Atlas and Maps. Dave Pacquette – Gold Panning. Chuck Prentice – Knapping. Bev Bockman – Cabs and/or Faceting. Bob Bristow – Computer Programs. Johnie – Fluorescent Minerals. Hospitality – Mabel, Margie, Luci, Ginger, Vanita. Name Tags – Luci. Johnie is working on the Set-up Floor Plans. He will take the main floor, with Bob Bristow and others taking the basement.

Joe Barreca mentioned that he had talked with Stonerose and they will have a display. He also said that The Pend Oreille Mine would be sending some “yellow head ore” for display.

Joe gave out flyers he had made for the Show. They were in COLOR! Wow! Thanks Joe. Many members took copies to distribute and advertise our Show.

The regular meeting began at 7:00 PM. Johnie told the members of our plans for the Show. (Please see above.) He mentioned that our Club now owns two display cases donated by Chuck French. Luci will send a Thank You to Chuck from the Club.

Johnie will be going to Kettle Falls High School to talk about our scholarship sometime next week. He will supply application forms and a letter describing requirements for the scholarship. This year we will be giving a scholarship to Colville High School as well. (Continued Page 3)

The Ultimate Collection

By Joseph Barreca

“Crystals and fossils of the magnitude on exhibit here are extraordinary and rarely, if ever, seen in museums or on the collector market.”
(Rock and Gem Magazine.)



This 500 lb giant pyrite cluster (\$28,500) is show by Richard Berger, whose private collection, The Museum Associates Gallery in the Seattle Design Center is “the ultimate collection”. My wife, Cheryl, and I luckily met an artist who works there creating displays. He led us through the security for a private tour, at once a strange and wonderful experience. The specimens were wonderful. The world of fabulously valuable minerals is strange. We were not allowed to take pictures. Some of the pieces had already been sold to people such as Sylvester Stalone and Steven Hawkings. More ordinary humans, such as ourselves, never even see pictures of these things. They end up in mansions somewhere to

dazzle friends of the select few who can afford them.

On the realistic side, finding, finishing, displaying and securing these treasures is very expensive. Setting up a museum for the general public would be very much more so. That is Richard Berger's ultimate goal, whether he can find the funding without selling off all of his best exhibits is the question. But he is an amazing man, if anyone can, he can.

After the recent earthquake in Pakistan, he contemplated what the most effective aid would be. A friend, an avid climber, once told Berger that the human body can live for weeks without food, days without water. But chilled to the core, the body goes into shock. It becomes susceptible to pneumonia. He came up with the idea of sending emergency survival blankets, such as the one shown here.



After torture testing each kind he could find at REI, he settled on the toughest and most effective. Then he negotiated the price down from \$5 ea. to less than \$1 for a larger purchase. Next he solicited contributions from 250 friends and by last Christmas had raised over \$100,000 to buy 110,000 of them and send them via The Mercy Corps to Pakistan.

But enough of the rich and famous, let's get down to the rocks. One of the most spectacular was certainly this: (see next picture) The Smithsonian believes that these natural concretions were formed by superheated water extruding through crevices into a small basin of very fine, pure white silicate sand. Because the sand was so fine, it went into suspension and swirled about the boiling water which was saturated with calcium carbonate, i.e. dissolved limestone. In the process, the movement of the



Natural Sandstone Concretion (\$285,000)

water was captured in stone including concentric rings and sine waves. The Smithsonian has one from Richard Berger's collection exhibited right next to the Hope Diamond. This one is the most intricately complex and largest of all these pieces ever discovered. It is about three times the weight and size of the one at the Smithsonian. I could have gotten lost looking into it myself, but we had to move on and still do.



Picture Sandstone (\$4,850)

This slab is 41.5" wide and 37.75" high. It does make you feel like you are staring deep into solid rock. Next to it was a huge rock containing 3 ammonites, each about 2 feet across. A clam and another tubular creature were fossilized together with them. The ammonites had been polished to reveal a fine pattern like interlocking leaves over their entire surface. Another piece you could look at for hours.

The gallery contained several giant crystal clusters weighing hundreds of pounds, and a petrified cross-section of a Sequoia that was 6' across (\$195,000). I could have examined it for hours, each ring and crack had become exquisite agate in a rich variety of colors. It weighs 1200 lbs. and dominates the room.

Some of the most amazing items were not on display, they had already been sold or were in a separate warehouse, but I can show you a couple of pictures and a story. One was the head of a duckbill dinosaur that lived in Wyoming 65-72 million years ago (\$125,000). They were vegetarians and were among the last dinosaurs to exist before the great extinction at the end of the cretaceous period. Several were found in one spot and believing that there were more in the same deposit, they were sold quickly, none have been found since.



The largest, most unique and expensive fossil in the collection is a Giant Turtle on limestone (\$395,000). It was found in the actual position as you see it in this picture.



It is complete with the feet and neck, parts of the bottom shell are off to the side, ribs protrude from the sides. In a close view, you can see puncture marks from what are believed to be the teeth of a giant crocodile that killed it. An Arabian Prince offered to buy it. But hearing that the prince wanted to have it removed from the stone and re-assembled, Richard refused to sell.

We saw several other amazing specimens that would not show up in enough detail to picture

here. I'll print larger copies and bring them to the next meeting, though truthfully, no picture could do justice to the intricacy and power of the real rocks.

(Minutes continued from Page 1)

Applications will be delivered and should be back to the club for evaluation by the Trustees in mid-May.

We received a letter from Bev Bockman resigning as our Program Chair. She is now working part time. This brought up the issue of whether or not we should give a stipend for program speakers that come from out of our area to present a program. Steve moved that we should give a stipend of \$50 to out of area presenters. Vanita seconded and the motion passed. Bill Allen wanted to have an amendment to the motion. It was moved, seconded and passed that we have an amendment. Bill moved that we give a stipend of \$50 to out of area presenters or non-member presenters, at the discretion of the current officers. Joyce seconded and the motion passed.

Johnie's theme for the month of March is GREEN ROCKS. St. Pat's Day, of course!

Mabel introduced 5 new members. We welcomed: Bill Jaeger, Kay Waterman, Ann Sebright, Chuck and Holly Cupp. You will love this club. We have FUN!

Rex brought up an idea of purchasing a piece of equipment that could be raffled off. At each meeting the club members could purchase a block of tickets, or a single ticket if so desired, until enough tickets were sold to pay for the equipment with hopefully some left over for the treasury. The club will pursue this issue.

A field trip for pyrite is planned for March 26. Please see Steve White if you are interested in going. He and Mike will explore the area to see if enough snow is gone and let us know at the next meeting.

Steve talked about his trip to Quartzsite, Tucson and Laughlin. He brought back some really interesting specimens. He really enjoyed the trip. We had a good time listening to his adventures. Thanks Steve!

Joyce volunteered to make cookies for our next meeting, March 17, 2006.

The meeting adjourned at 9:00 PM.



Mineral Identification
Mineral/Mine Locations

Bristow Enterprises

PO Box 1165

Chewelah, WA 99109

Bristow@theofficenet.com

www.minrls.com

Clean Quartz Crystals Overnight!

By Bob Bristow

Soon after getting out of school and moving to Seattle, I began attending rock shows sponsored by various clubs. The display cases presented by the Seattle clubs contained many beautiful rocks and minerals and I was impressed with the members' ability to find such good specimens. However, there were always cases containing quartz and other minerals with brown-stained crystals. While I was still very young, an old-timer had explained to me how to make those crystals bright and shiny. I asked one of the club members if they used oxalic acid. He said, "Oh, yes! Everyone knows about oxalic acid." I then asked what temperature he had used for the acid. His blank look told me he had used room temperature. I started to tell him about the importance of temperature, but he waved me off and started talking to another visitor. After all, he was an officer in one of the big clubs and I was a young kid.

A couple of other times, I tried to make gentle comments about how crystals are cleaned and each time the listener didn't want any advice. Maybe this was the general human resistance to advice, but probably it was due to the listener being embarrassed by not knowing how to accomplish so simple a task as cleaning specimens. They shouldn't have been embarrassed; cleaning crystals and other mineral specimens is not simple and is not easy. A friend of my father's was a mineralogy professor at one of the Western Washington universities. He was visiting one time when I came by and during a conversation, I mentioned using oxalic acid to clean crystals. He scoffed and said professionals

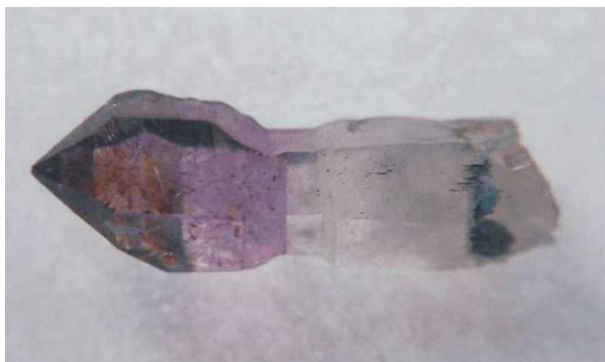


Figure 1. Amethyst Crystal Cleaned with Prestone Radiator Cleaner

don't used oxalic acid. They use something that cleans much better and doesn't hurt the fragile crystals. I, of course, wanted the formula. He couldn't give it to me. He did say that he knew it contained a chemical that was hard to obtain. So much for what professionals use.

Actually, the trick the old timer taught me for cleaning crystals involves oxalic acid, but with other additives. This cleaning material is a type of automotive radiator cleaner. It is the two-part cleaner in the yellow cardboard can made by Prestone. It is becoming hard to find and when I see it in an automotive store, I buy out their entire supply. The real trick is in using the right temperature. It must be just below boiling. At room temperature, you can soak crystals for months without a thin limonite stain being removed. At boiling, it can be removed in minutes. I have used a number of containers for heating the acid-water solution. A handy one is an old glass coffee maker. Put the rock to be cleaned in the glass pot, add about one teaspoon of acid, then add enough water to cover the specimen. Now, an important step. Place some Saran wrap over the pot and use a rubber band to hold it in place. Before turning the heater on, use your finger to push down the center of the Saran wrap. This will allow the steam that condenses on the wrap to run down to the center and back into the water. Otherwise, you will have the smell of hot oxalic acid in the house. Figure 1 shows a quartz crystal cleaned in a coffee maker. It originally had stains that could not be removed by normal cleaning.

I now use something that is very handy for larger specimens. It is an old crock-pot. Put the specimen(s) in the bottom of the pot, cover with water, then add about a tablespoon of acid. Be sure to replace crock-pot lid trap acid vapor.



Figure 2. Calcite Cluster Cleaned with Hydrochloric Acid

After the crystals are clean, let them cool slowly so as to not cause them to crack with a thermal shock. Pouring the acid into a pail and adding the baking soda from the other end of the Prestone container can safely dispose of the used acid. Actually, the oxalic acid is very mild. I don't hesitate to stick my hands in it as long as it is cold. Quartz crystals with limonite stain can be cleaned overnight. However, if the crystals are in cluster form, there may be hard to remove material between the crystals. You can help remove this material by swirling the water around the crystals during the heating. (This is easy with the coffee maker, hard with the crock-pot.) A toothbrush and dental pick are also handy. Often the material between the crystals is softened by the acid but still won't come out. For these tough ones, I heat them in acid, let them cool, scrape off all I can get, then put them back in the acid for another cycle.

I have been talking about quartz crystals.



Figure 3. Quartz Cluster with Overgrowth Covering Stains

How about other minerals? Two fragile crystals that are commonly collected are calcite and zeolites. These should first be cleaned with plain water and soap. After that you have to make a decision as to whether you want to take a chance on damaging the specimen with further cleaning. I have not found a good way to clean zeolites. They are even soluble in water. However, there is a good way to clean some calcite crystals using a method pioneered by Lanny Ream. In this method, you first tie a string around the calcite specimen. You then prepare two buckets, one with straight hydrochloric acid and the other with fresh water. Holding the string, you now dip the crystals into the acid. The specimen will immediately be covered with foam. Leave it in

the acid for a second or two, then lift it out and dip it into the fresh water. You can change a dull, dirty crystal surface to one that is bright and shiny. (Be sure the water is ready before starting the cleaning!) If you can't get straight hydrochloric acid, you can use Muriatic acid. It is a mixture of 1/3 hydrochloric acid and 2/3 water. Figure 2 is a large specimen of calcite. It was originally a dirty brown. The faces are now bright and shiny after spraying the cluster with hydrochloric acid and a rinse of fresh water from a garden hose. A plastic spray bottle was used to hold the acid for spraying.

I had an interesting experience using oxalic acid one day. I was using the oxalic acid to eat away the calcite enclosing some garnet crystals. This was a longer process than using hydrochloric acid, but I was all set up for using oxalic acid and I wasn't in a hurry. I would let the calcite soak in the hot oxalic acid overnight, then replace the depleted acid the next day. On one of these cycles, I let the specimen cool before putting in new acid. When I picked the specimen out of the water, I knew something strange had happened. Little needles stuck into my hands. After I dried it, I found the surface was covered by thousands of small, clear, sharp calcite crystals. I found this so interesting that I never finished extracting the garnets. I kept the specimen as a sample of how easy it is to make some crystals.

For those interested in crystallography, the process worked like this: The hot acid dissolved calcite until all of the acid was depleted. Hot acid can contain more calcite ions than cold acid. Therefore, when the acid cooled, it could not hold the ions and they crystallized as new crystals on the surface of the old calcite.

Some specimens simply cannot be cleaned. Figure 3 is a cluster of quartz from Snoqualmie Pass. A layer of quartz covers the original crystal surfaces protecting the muck on those surfaces from any cleaner.



Uvarovite – also found in Gemini Mine, Ferry County