Place:
Arden Community Hall
636 Hall Rd
Arden, WA

Club Meetings:

Third Tuesday of the Month at 6:00PM

The Panorama Prospector

February 2024

PANORAMA GEM AND MINERAL CLUB

Minutes for the January 16, 2024 General Meeting

The meeting started at 6:07 pm. Bob Bristow was presiding since Lynne was out of town. He welcomed new members and visitors.

The question of starting meetings earlier was asked. Everyone agreed to keep meeting at the 6 pm start time.

Johnie presented several show themes from the past. After discussion the theme "Nature's Artistry" was agreed upon.

Johnie then presented the jobs to be done and solicited members to work or be in charge of the various tasks. (If you want to help or need a reminder of what you volunteered for, contact Johnie.)

Frank said club baseball caps are available for $10. They would be great to wear at the show.

Kevin Youngblood agreed to be the third trustee.

Dave shared an old plate he found in the Chewelah area that appeared to date to the time last century when Chinese worked in the area.

It's almost show time!

18 days until the show!

Johnie's Jabbers

By Johnie Pitman

It's **SHOW TIME**. Our annual show is March 8-9 at the Ag Trade Center in Colville. We will need as much help as possible to get set up on Thursday the 7th, at 8:00 AM. We hope to have all the tables set up and skirted by noon so that the dealers can start doing their thing. The display cases should be ready by 1:00 PM also, ready to put your treasures in and closed up by 5:00.

We will also need as much help as possible on Sat evening at 5 PM to take everything down and store in the trailer. THANKS for ALL YOUR HELP!!!

Also, the posters will be at the Feb. meeting and can be distributed any time after the meeting.

Be considering if you want to fill a display case, and if so, how many? We have 22 cases. I'll be asking you at the meeting how many you want. If you aren't at the meeting call me if you want to fill a case.

I also need someone to be in charge of the Ball Toss game that will be located close to the Silent Auction. Please come to the show and help wherever someone might need a break, even if it is only an hour or two.

Identify the "Rock or Mineral"

By Jim Retzer

Last month's rock or mineral:

Smithsonite – It is the mineral form of zinc carbonate that occurs in a variety of colors. It is rarely found as well-formed crystals.

When found in crystal form it is in the Trigonal crystal system, but typically it is found in botryoidal masses. Its variety of vibrant colors is what makes it a very desirable mineral for collectors. Smithsonite is found in many locations around the world, but its best crystal forms come from Tsumeb, Namibia and the Kabwe Mine in Zambia in south Africa.

Smithsonite forms as a secondary mineral in the weathering or oxidation zone of zinc ore deposits. It is commonly associated with hemimorphite, willemite, hydrozincite, cerussite, malachite, azurite, aurichalcite and anglesite.

Smithsonite is originally a colorless to white mineral, but it is quite easy to integrate impurity elements into the crystal structure giving it a variety of colors. When it contains small amounts of metal ions it will be found in shades of deep yellows, blues, greens, pinks, and purples.

As for physical properties Smithsonite is a trigonal mineral rarely found in its crystalline form but typically found in a botryoidal mass. It has a Mohs hardness of 4.5 with a specific gravity of 4.4 – 4.5. In its pure form it is colorless to white but due to impurities it can be found in white, grey, yellow, green to apple-green, blue, pink, purple, bluish grey, and even brown colors. It has a vitreous pearly luster and gives a white streak on a streak plate.

As mentioned Smithsonite can be a unique mineral specimen in your collection as it comes in such a variety of colors. It is especially valued in its true crystal form but in the botryoidal mass it is usually found in it makes a delightfully colorful specimen. In our area smithsonite has been found in the the Northport Mining District of Stevens County. The material found there is white to a tan/brown botryoidal mass.

Next Month's Rock or Mineral

UV Light

By Joe Barreca

When I joined the Panorama Gem and Mineral Club in 2005, I was impressed by the brilliant display of color in some rocks under Ultraviolet (UV) light. I talked the club into buying a "portable" UV light to search for UV responsive rocks in nearby mines and other sites. The "portable" here reminds me of my first "portable" computer, later classified as a "luggable". Ours came from Way Too Cool UV Lights. It cost over $500. The battery was a 5 lb lead

acid 12 volt battery in a fanny pack with a wire going to the handheld light. The weight and the connection were problematic. The UV bulb was expensive to replace. But it had 3 settings Long Wave, Mid Wave and Short Wave. That made all the difference. I think we still have that light. It looked somewhat like this:

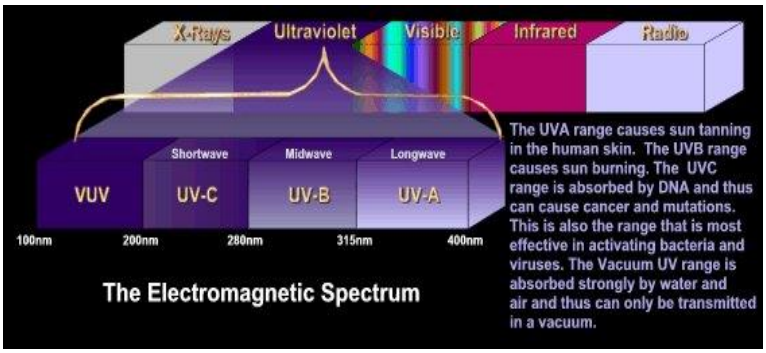
That light used a regular 12 volt UV light and glass plates that had been grooved to let through the different wavelengths of light. It also had a fan that was needed if the light was on for very long because it generated a lot of heat. The grooved glass plates are what made it expensive. Luckily we never broke one of those.

Things have changed. Now we have UV lights that use special LEDs. No more grooved glass. They are handheld flashlights with small rechargeable batteries. PGMC Second Gentleman, Roger Calvert brought something called the UV 365 Beast to the rock show last year. I had already bought some less expensive flashlight style UVs. They were nothing compared to the Beast. I had to get one. This year I did

.

Trying it out while crouched down in our storage shed where I have some selected UV sensitive rocks stored, I saw some amazing colors. In fact, shine this thing outside at night on the ground and trees, let alone the rocks, and all kinds of things light up. It is reportedly also very good on scorpions. Those are in short supply up here.

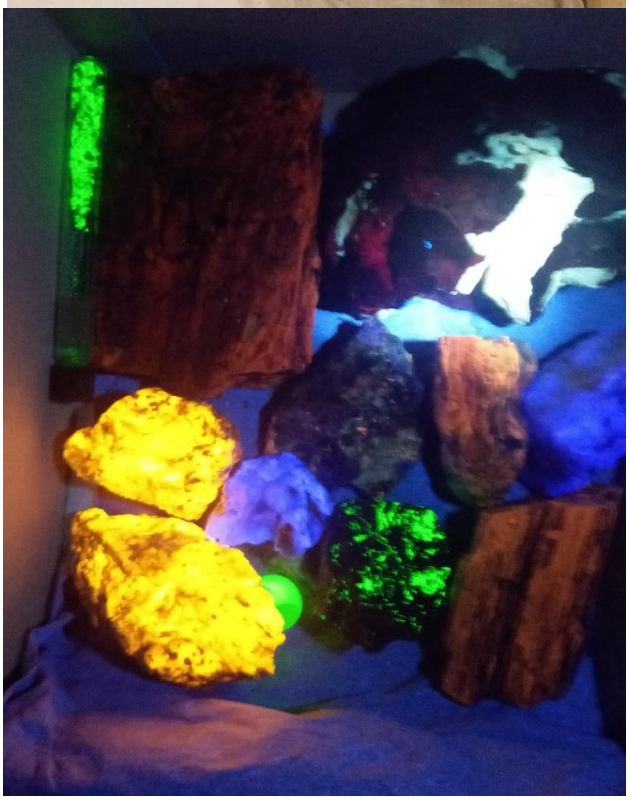
But there were also a lot of rocks, particularly rocks collected locally, where it did little to nothing to make them glow. That was a disappointment. I went back online for answers. I found a couple of good websites. https://www.naturesrainbows.com/uv-topics was one. https://www.midnightminerals.com/ is another. Natures Rainbows had some good reviews, information and advice. Both sell UV lights.



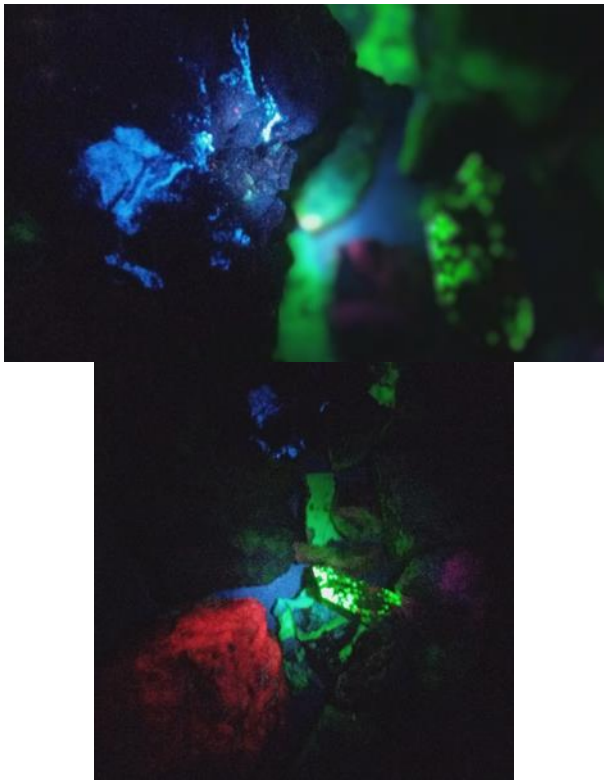
This is the UV spectrum. At 365 nm (nanometers) the 365 UV Beast is on the longwave end of the UV spectrum, UV-A. The very lowest is VUV – which only works in a vacuum. Not very handy. But the UN-C range is active on 90% of UV reactive rocks. Shortwave UV is the most popular light source for displaying fluorescent minerals. The number of minerals that fluoresce under SW far exceeds those that fluoresce under LW or MW. But the lights (bulbs and filters) required for SW illumination are considerably more costly. (NaturesRainbows.com) Here is the cool thing. They now make LED UV lights in the UV-C range. I bought one from Midnight Minerals. It was pricy, $140 plus shipping and tax. Suddenly my local UV rocks are alive again! On the downside, it is not nearly as powerful as the Beast. So these pictures are not as impressive. Making life worse, the camera on my cell phone doesn't see things like my eyes do. It shows a bright center focal point as white. My eyes don't.

Having both lights in action, I divided my stash of fluorescent rocks into short wave and long wave boxes. The UV Beast is killer on the longwave box, lighting up the whole thing. The shortwave light, 255 nm, not so much on its box. A midwave LED light is also available. It is even more expensive. I stopped short of that. But some of the rocks in my collection didn't do much at either the long or short wavelengths. I suspect that they might pop on minwave.

So that's the long and the short of it. I'll bring the whole setup to the next meeting.



On top: Longwave box in visible light On bottom: same box under UV 365



Two pictures of shortwave box in different parts of the box. There are some great yellows, too. Not seen.

Unakite: A multipart series

(https://geologyscience.com/rocks/metamorphic-rocks/non-foliated-metamorphic-rocks/unakite/)

Unakite is composed of three main minerals:

1. **Orthoclase Feldspar:** This mineral is responsible for the pink or salmon-colored portions of Unakite. Feldspar is a common group of rock-forming minerals and is one of the most abundant minerals on Earth's crust.
2. **Epidote:** The green color in Unakite comes from the presence of epidote. Epidote is a silicate mineral that is commonly found in metamorphic rocks.
3. **Quartz:** Clear to bluish-gray quartz is the third major component of Unakite. Quartz is a mineral composed of silicon and oxygen, and it is a common component in many types of rocks.

The combination of these three minerals gives Unakite its distinctive mottled appearance, with pink, green, and quartz patches creating a unique and attractive pattern. The proportions of these minerals can vary, leading to different shades and intensities of color in different specimens of Unakite. Additionally, small amounts of other minerals or impurities may be present, influencing the overall appearance of the rock.

Unakite exhibits several physical characteristics that contribute to its unique appearance and make it distinctive among other rocks. Here are some of the notable physical characteristics of Unakite:

1. **Color:** The most recognizable feature of Unakite is its distinctive mottled appearance, featuring shades of pink, green, and sometimes white or clear quartz. The specific colors can vary depending on the proportions of orthoclase feldspar, epidote, and quartz.
2. **Texture:** Unakite typically has a granular or coarse texture, reflecting its metamorphic origin. The individual mineral grains are often visible to the naked eye, and the rock may have a slightly rough feel.
3. **Hardness:** Unakite has a moderate hardness. It falls in the range of 6 to 7 on the Mohs scale of mineral hardness, which means it is durable enough for use in various applications, including jewelry and decorative items.
4. **Luster:** The luster of Unakite is generally dull to vitreous. The feldspar and quartz components contribute to a glassy or shiny appearance in some areas.
5. **Density:** The density of Unakite can vary depending on the specific mineral proportions, but it typically has a density in the range of 2.8 to 3.2 grams per cubic centimeter.
6. **Formation:** Unakite forms through the metamorphism of granite, where the original minerals undergo changes in pressure and temperature. The pink color in the rock comes from the alteration of orthoclase feldspar, while the green color is due to the presence of epidote.
7. **Crystal Structure:** Unakite has a crystalline structure, with the individual minerals forming distinct crystals. The presence of quartz contributes to the overall crystalline nature of the rock.

These physical characteristics make Unakite not only aesthetically pleasing but also suitable for various applications, including lapidary work, jewelry design, and as a decorative stone. Additionally, its unique combination of colors has led to its use in metaphysical and spiritual practices by some individuals who believe in the healing properties of stones.

Membership Dues:

$20.00 per **household** per year is due to the club Treasurer Frank Stratton on the third Tuesday of November for regular members. Dues can also be sent to: Panorama Gem and Mineral Club c/o Johnie Pitman, 701 B Williams Lake Rd, Colville, WA 991114.

Webpage: http://panoramagem.com/

Facebook Group: Panorama Gem & Mineral Club

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).

A Quick Note from The Editor (Glynis)

It's a new year and a new opportunity for you to contribute to OUR newsletter! Send ideas for articles, internet finds, jokes, pictures, adventure stories, science articles or your own articles to me. gghull@comcast.net

Refreshment Schedule for 2023

Last names that begin with the letters posted bring refreshments for that month

January – H, I, J
February – K, L, M
March – N, O, P
April – Q, R, S, T
May – W, A, B, C
June –D, E, F, G
July – H, I, J
August – Club Picnic
September – K, L, M
October – N, O, P
November - D, E, F, G
December – Christmas Party

Panorama Gem and Mineral Club: Organizational Chart

Officers

President:	Lynne Calvert	lynnecalvert501@gmail.com	559-906-5923
Vice-President:	Bob Bristow	bristow71@outlook.com	509-935-4375
Secretary:	Glynis Hull	gghull@comcast.net	509-981-9714
Treasurer:	Frank Stratton	frstratton@outlook.com	509-207-8503
Trustee 1:	Kevin Youngblood	squaredeal.lic@live.com	509-680-0207
Trustee 2:	Jim Peters	jimnbetty17@gmail.com	509-992-6921
Trustee 3:	Cyndi Doppler		509-216-5473

Committee Chairs

Program Coordinator:	Sheila Stratton	skstratton@hotmail.com	509-207-8506
Hospitality:	Betty Peters	jimnbetty17@gmail.com	509-992-6921
Historian:	Sheila Stratton	skstratton@hotmail.com	509-207-8506
Newsletter:	Glynis Hull	gghull@comcast.net	509-981-9714
Show Chair	Johnie Pitman	jgpitman@outlook.com	509-684-8887