

Place:
Arden Community Hall
636 Hall Rd
Arden, WA



Club Meetings:
Third Tuesday of the Month
at 6:00PM

The Panorama Prospector

January 2024

PANORAMA GEM AND MINERAL CLUB

No Minutes for the December 19, 2023 General Meeting

We had a wonderful dinner celebrating the Christmas season with a fun present exchange!



It's almost show time!

52 days until the show!

Johnie's Jabbers

By Johnie Pitman

It's getting close to show time!!! We'll need to decide on a theme for this year's show.

Also be considering where you would like to work, and which days you can help. The show dates are Friday and Saturday March 8-9 with setup on the 7th.

We will go through the show planning sheet at the January meeting.

Identify the "Rock or Mineral"

By Jim Retzer

Last month's rock or mineral:



This month's rock or mineral:

Shattuckite - a relatively scarce copper silicate mineral. Often confused with gemmy Chrysocolla or sometimes with blends of Malachite and Azurite with other minerals. Although they can appear similar in color and are copper-based minerals, they have quite different chemical compositions. Where Shattuckite is a copper silicate hydroxide with a chemical formula of $Cu_5(SiO_3)_4(OH)_2$, Chrysocolla is a Hydrated Copper Aluminum Silicate Hydroxide with a chemical formula of $(Cu, Al)_2H_2Si_2O_5(OH)_4 \cdot nH_2O$. Malachite and Azurite are Copper Carbonate Hydroxides. Malachite has a chemical formula of $Cu_2CO_3(OH)_2$ and Azurite has a chemical composition of $Cu_3(CO_3)_2(OH)_2$. All four of these minerals occur as a secondary mineral in oxidized copper deposits and are found in association with along with ajoite, quartz and hematite.

Shattuckite was first identified in 1915 and named after the mine where it was discovered, the Shattuck Mine in Bisbee, Arizona. It was found as a pseudomorph after malachite, or an atom-by-atom replacement of the crystal structure by another crystal structure with little alteration of the shape of the original crystal. In its natural form, Shattuckite crystallizes in the orthorhombic crystal system and usually occurs in a granular massive form it also forms as fibrous acicular crystals which contribute to its distinctive appearance. Its color can range from a deep, saturated blue to green-blue, and often exhibits a velvety luster. It is an uncommon copper mineral and is held in high regard for its vivid blue color.

Shattuckite is light to dark blue in color and is sometimes found banded in concentric formations. It has a Mohs hardness of 3.5 with a specific gravity of 4.11. Most often found in radiating, botryoidal, globular, reniform and stalactitic forms and frequently forms pseudomorph after other minerals, such as cuprite, quartz, diopside. Another noted location for this mineral is Wickenburg, AZ. Its stunning coloration and unique crystal formations make it a sought-after mineral for both collectors and lapidarists.

Next Month's Rock or Mineral



Yes, these are the same mineral!

The “Dolomite Problem” – Scientists Resolve 200-Year-Old Geology Mystery



Dolomite is a mineral so common in ancient rocks that it forms mountains like this namesake mountain range in northern Italy. But dolomite is rare in younger rocks and could not be made in the lab under the conditions at which it formed naturally. A new theory helped scientists grow the mineral in the lab at ordinary temperature and pressure for the first time

and could help explain the scarcity of dolomite in younger rocks. Photo credit: Francesca.z73 via Wikimedia Commons.

To create mountains from dolomite, a common mineral, it must periodically dissolve. This seemingly paradoxical concept could help make new defect-free semiconductors and more.

For two centuries, scientists have failed to grow a common mineral in the laboratory under the conditions believed to have formed it naturally. Now, a team of researchers from the University of Michigan and Hokkaido University in Sapporo, Japan have finally pulled it off, thanks to a new theory developed from atomic simulations.

Their success resolves a long-standing geology mystery called the “Dolomite Problem.” Dolomite—a key mineral in the Dolomite mountains in Italy, Niagara Falls, and Utah’s Hoodoos—is very abundant in rocks older than 100 million years, but nearly absent in younger formations.

The secret to finally growing dolomite in the lab was removing defects in the mineral structure as it grows. When minerals form in water, atoms usually deposit neatly onto an edge of the growing crystal surface. However, the growth edge of dolomite consists of alternating rows of calcium and magnesium. In water, calcium and magnesium will randomly attach to the growing dolomite crystal, often lodging into the wrong spot and creating defects that prevent additional layers of dolomite from forming. This disorder slows dolomite growth to a crawl, meaning it would take 10 million years to make just one layer of ordered dolomite. (<https://scitechdaily.com/the-dolomite-problem-scientists-resolve-200-year-old-geology-mystery/>)

Unakite: A multipart series

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

Unakite is a type of metamorphic rock that is primarily composed of pink orthoclase feldspar, green epidote, and clear to bluish-gray quartz. It is

known for its distinctive mottled appearance, with a combination of pink, green, and sometimes white or clear mineral components. The name “Unakite” is derived from the Unaka Mountains in the southeastern United States, where this rock was first discovered.



The formation of Unakite occurs through the metamorphism of granite, during which feldspar undergoes alteration to form the characteristic pink color, while epidote contributes the green hues. The quartz in Unakite adds to its overall durability and crystalline structure.

Unakite is often used as a decorative stone in jewelry and lapidary work, where its unique blend of colors makes it visually appealing. Additionally, it is believed by some to have metaphysical properties, such as promoting balance, emotional healing, and spiritual growth. Whether appreciated for its aesthetic qualities or embraced for its perceived metaphysical benefits, Unakite continues to be a popular choice in various artistic and holistic practices.

From Jim the Jokester:

From the periodic table:

Q: What did the bartender say when oxygen, hydrogen, sulfur, sodium, and phosphorous walked into his bar?

A: OH SNaP!

Q: What do geologists call a benzene ring with iron atoms replacing the carbon atoms?

A: A ferrous wheel.

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:			
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