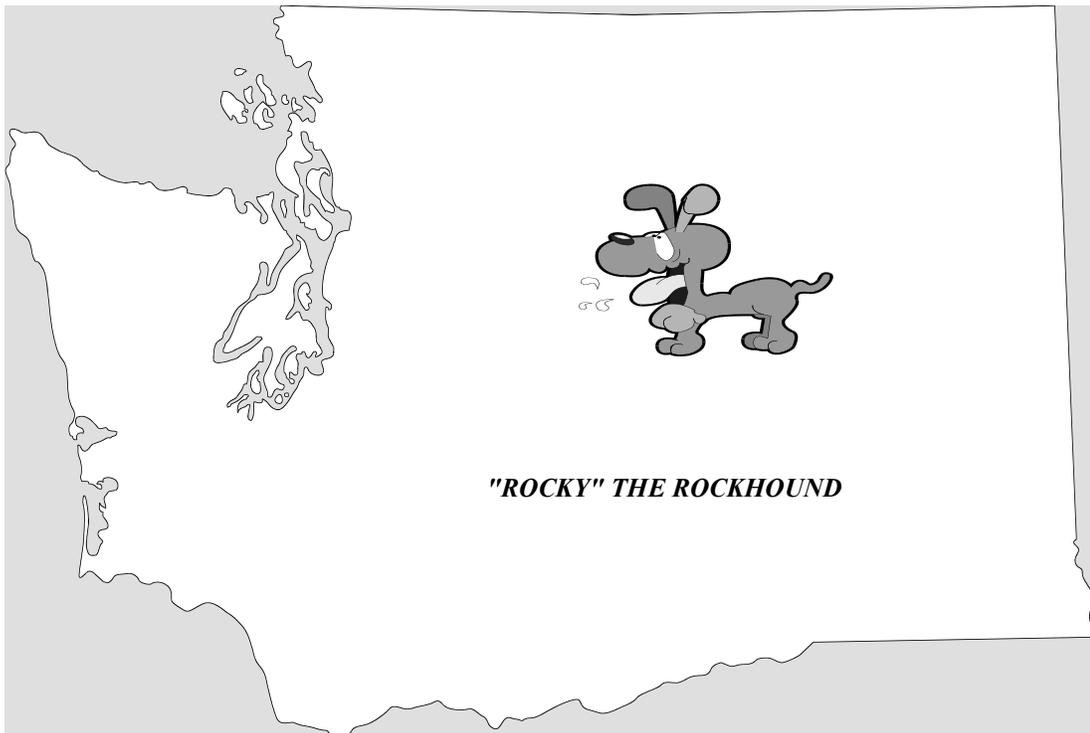

◆ **The Council Reporter** ◆

Volume 41, Issue 1

January 2021



**Official Publication of the
Washington State Mineral Council**

**WASHINGTON STATE MINERAL COUNCIL
2019 OFFICERS**

OFFICERS

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The West Side Board meets the third Tuesday of each month between combined meetings, unless a special meeting is called. Usually no meeting in July and December dependent on Board action.

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The old URL www.mineralcouncil.org will continue to re-direct you to the new location.

New e-mail address: mineralcouncil@zoho.com. Please update your address books.

The January meeting was took place using Skype. Only a couple folks signed in so no business could be conducted.

We determined that between Bob mailing about 70 newsletters and my address book, our total distribution is about 220 newsletters.

Hiddenite and Kunzite, The Wonderful Gem Varieties Of Spodumene

by Ana Papadopoulos

Sometime in the mid 1990s I received a translucent, glassy pink colored stone as a gift that was found at a mine down in San Diego County, California, and I fell in love with the color and texture of the stone. The stone turned out to be Kunzite, the pink to purple variety of Spodumene. What is Spodumene and why is it important you might ask. Spodumene is a pyroxene mineral consisting of lithium aluminum inosilicate with the chemical formula $\text{LiAl}(\text{SiO}_3)_2$. It occurs in pegmatites, and it is often found with other pegmatite minerals such as Muscovite, Lepidolite, Tourmaline, Morganite, and Aquamarine. As the chemical formula suggests, Spodumene is a source of Lithium, which is used in lithium batteries and as a flux in ceramic glazes. It is a much purer form of lithium than alkaline brines and can be processed in days rather than months or years.

Apart from Spodumene's industrial uses, it is also used as a gemstone. While it is often colorless to ashy grey and opaque, it can be transparent, pale to emerald green and light pink to lilac purple and even yellow. The pale to emerald green variety is called Hiddenite and the pale pink to vibrant lilac purple variety is called Kunzite. They are both beautiful as crystals and as faceted gemstones. I refer to them as "hidden gems" because they are not as well known as other gemstones like diamonds, emeralds, or rubies, but are beautiful in their own way. They contain properties which make them harder to facet but also contain properties which enhance their uncommon beauty.

Hiddenite ($\text{LiAlSi}_2\text{O}_6$), or Lithia Emerald as it was once called, is certainly a hidden jewel. Hiddenite was first discovered around 1879 in a small settlement that was later renamed Hiddenite in Alexander County, North Carolina. The mineral was named in honor of William Earl Hidden who was instrumental in its identification. As a mineral specimen, Hiddenite forms as bladed crystals, which can have an etched surface creating interesting shapes. It also has a vitreous luster. Like Emerald, its green color comes from chromium. As a gem, Hiddenite is a tricky stone to work with due to its monoclinic crystal system and two cleavage directions, but when faceted, the icy green color just sparkles. Another reason why it is not widely used as a gemstone is because it is 6.5-7 on the Mohs scale and can chip more easily. Another drawback is the color can slowly fade over time when exposed to sunlight so it is often worn at night if set into jewelry (the Kunzite specimen I have from the 1990s has not faded but then again I keep it away from direct sunlight). With Hiddenite, the deeper and richer the color, the more valuable it is. While there are other sources besides North Carolina for green-yellow Spodumene, such as Afghanistan and Brazil, the stones are much paler and

Westside Board Meeting AGENDA

Opening of Meeting
Treasurer's Report
◇ Kathy Earnst
Committee Reports
◇ Wagonmaster -Ed Lehman
Old Business
New Business
Open Comments
Adjourn

Proposed Meeting Calendar for 2021

West side board meetings:
01/19, 03/16, 05/18, 10/19

At 7:30PM at the
Maplewood Clubhouse
8802 196th St SW, Edmonds

General meetings :
04/10, 06/05, 11/06

All general meetings will be held at:

Palace Café
4th & Main
Ellensburg
Meeting @ 9:30 AM

GPS Co-ordinates Needed

The WSMC needs the GPS co-ordinates of any and all of the collecting sites in the state. In an effort to make the map booklets as accurate as possible the Mineral Council is asking for everyone to record GPS readings while on field trips. The data can also be used to help in our fight to keep our collecting areas open.

Dues are due

Download the PDF or Word version from the WSMC website in the Misc. Resources menu.

Please send the dues and form to Kathy Earnst

27871 Minkler Road
Sedro Woolley, WA 98284

of lesser quality, and are often irradiated Kunzite. However, the mines are still active in North Carolina, and are the only source for true Hiddenite, making it rare and valuable.

And now we come to that mineral I fell in love with as a ten year old; Kunzite. It was discovered in San Diego County, California and sent to George Frederick Kunz, a mineralogist working for Tiffany and Company, who identified it as a new species in 1902. It was subsequently named in honor of Kunz in 1903. It shares properties with Hiddenite except that it is colored by traces of Manganese, so it is not green but various shades of pink or purple. As a mineral specimen, it can form beautifully elongated crystals with a sharp termination.

Both Hiddenite and Kunzite are pleochroic, meaning they change color depending on the angle and that makes them special. Only a handful of crystals have this property including Tanzanite and Alexandrite, and they are valuable gems! As with Hiddenite, the deeper the color the more valuable it is. While Hiddenite may be considered a connoisseur gemstone due to its rarity, Kunzite is more abundant, and therefore more affordable, making it the perfect gemstone for collectors of all levels. This is why I consider it a "hidden gem".

The main sources for Kunzite are Afghanistan, Brazil, and of course, San Diego County, CA where some of the best stones are found. There is a famous necklace designed by Paloma Picasso for Tiffany and Co. that is set with a large 396.30 carat Kunzite from Afghanistan that resides in the Smithsonian, and yet, this mineral is still an underappreciated gemstone that deserves more love.

From CSM eTumbler 01/21, via Breccia, 11/20

The Field(s) of Mineralogy, A Layperson's Observations By Angie Guzman

I suppose you could say there are many "facets" to mineralogy. First is the "Eureka!" moment of discovery followed by study of the raw material - to see what it's made of. Generally, next comes large scale processing of ore along with experimentation to find logical uses. Eventually, design of synthetics comes into play; then studies of minerals found deep within the earth's richness. Ultimately, the search leads to the heavens for asteroids, meteorites and other celestial bodies (moon rocks, for example).

Recall that first time you spotted something that caught your eye to awaken your interest in minerals? It could have been a plain or odd-looking rock that may have contained hidden "gems"; or was it something that glistened, something you couldn't possibly avoid giving your attention to? Using our natural curiosity, just leaning over the object gives rise to an unearthing of a world you hadn't previously known existed, mineralogy. Close inspection of the treasure using just your naked eye, reveals colors, shapes and the naturally occurring beauty that attracted you to it in the first place. That is the "aha moment"!

Studying your find, looking at it under a microscope or other detail device, you spot definitive forms, they're crystals! You

realize it's not just a rock but a mineral that appears unique. But wait, it has other things under and around it, a different looking crystal, other colors and a "matrix". Before you know, you've opened the door for more research and knowledge. And so it goes.

Others dig deep into the surface of our planet and bring up ore to be processed. "Ore dressing" is a process that extracts minerals from commercial ore. Usually, ore dressing is done on a huge scale. In reality the process goes back centuries to around 970BC. There are phases and procedures for sizing, sorting, classification, etc., of the ore. Once the minerals are extracted, they are further studied for appropriate uses. At some point, someone said something like, "...I think we can make this in the lab!" Thereafter, synthetic gems popped out of labs by the hundreds. Many synthetics are virtually equal in chemical formulation, optical structure and physical appearance to their original, natural counterpart. These synthetics have a thriving marketplace in technology, for industrial uses and in jewelry. They are, however, less valuable than natural gems and, for that very reason are "grown" under extremely strict guidelines. An old adage comes to mind, "Let the buyer beware."

Discoveries are not limited to Earth. Outer space is abundant with minerals. Near-Earth asteroids are silicate rock made up of oxygen and silicates. Nickel, platinum, gold, magnesium and other precious metals make up metallic asteroids. There are few asteroids that are a combination of silicate and metallic. But, not to be outdone, the near-Earth asteroid Itokawa consists of olivine and pyroxene and is similar to the meteorites that had pelted Earth in the past. In fact, Hayabusa, a Japanese robot spacecraft, landed on Itokawa in 2005 and returned collected materials to Earth in 2010.

There are many fields of mineralogy. In learning about mineralogy, we increase our understanding of minerals. And so it is, many people study minerals to see why one is red or blue, some collect them, others employ spiritual meanings, some trade or sell theirs, many display theirs, some craft theirs into jewelry and some just dig 'em up for profit and/or fun. No matter the reason, minerals are a part (medicinal, too) of our daily lives. When we find that special mineral, whether here on this planet or out there in outer space, we're thrilled. I know I am!

Our quest for knowledge is insatiable. The more we know the more is our understanding and appreciation.

Be safe. Be well.

From MSSC Bulletin 05/20

MINERAL MYTHS AND MEANINGS (AND A LITTLE SCIENCE) from Dave Wester

Throughout the ages, man has held a deeper belief of gems and minerals, considering them to bring luck or associating them with health or life facts. When you think about it, there's probably a grain of truth to some of these myths because minerals, gems, and rocks are made up of the same compositions as the human body. If you've taken a chemistry class you'll know this to be true. This column presents a gem or mineral



myth (or meaning) each month so that you can become better acquainted with some of the more diverse properties of those rocks we love to collect. This month we talk about kunzite at the request of one of our members.

Kunzite is the pink to light purple gem variety of the mineral Spodumene. Spodumene is a common mineral, but only in a few select localities does it occur in transparent gem form. One gem form is the pink kunzite, and another gem form is the green hiddenite. Kunzite is a very attractive pink gem with the color coming from minor to trace amounts of manganese, but is notorious for its habit of color fading in strong light. Some deep pink stones have turned nearly colorless from fading.



Although the color-fading effect is not this drastic in most kunzite, it is still important not to expose kunzite gems to strong light (especially sunlight) for long periods. Kunzite is sometimes called "evening stone" for this reason. The color of some kunzite can be restored or intensified by irradiation.

The perfect cleavage and splintery fracture of kunzite makes it one of the most difficult gems to cut. It is very sensitive to knocks and will chip if hit too hard. Kunzite is famous for its strong pleochroism, showing lighter and more intense coloring when viewed at different angles. For this reason, it is always cut to show the deepest pink color through the top of the gem. The deeper pink the kunzite, the more valuable it is.

It was discovered in 1902, and was named after George Frederick Kunz, Tiffany & Co.'s



chief jeweler at the time, and a noted mineralogist. It has been found in Brazil, the U.S., Canada, the Commonwealth of Independent States (made up of former Soviet Republics), Mexico, Sweden, Western Australia, Afghanistan, and Pakistan.

From a mystical perspective, kunzite, it is told, will help to combat feelings of inferiority, inhibition and depression, and it also has a pronounced calming effect on the heart. It is also known to ease tension of tight muscles, and it is especially good for the nerves and muscles of the shoulders

and neck. It creates calmness when you have to accept a situation because it is out of your control.

Its most favorable use is for removing emotional blockages from your history, especially childhood stress and trauma. Kunzite will help you to see the blockage, and to understand what needs to be done, so that you may start on the road to recovery. This is the stone to help resolve, dissolve, and get past old buried experiences of deep emotional stress.

From WSRC Petroglyphs, 09/20, via Rocky Trails, 12/10

Bob Pattie sent in the following two articles affecting our hobby.

The following is an article from the ALAA website regarding California's BLM office in Sacramento release of a management plan for California Desert Conservation Area Plan. If you are planning on collecting in the California area or have an interest in this area, I would suggest you go to the website below to get more information on the plan.

Greetings Recreational Rockhounds

The outcome of this may have an effect on Recreational Rockhounding in the area of the Desert Renewable Energy Conservation Plan (DRECP). If the changes affect access to collecting areas that are now open, a comment needs to be submitted to keep the access roads open to vehicular travel. If proposed Renewable Energy sites block the access to collecting areas a comment needs to be made to permit access around the Renewable Energy Facility. If these changes affect Recreational Rockhounding and we do not speak up we could loose more collecting areas. The Rockhounding fate is up to all Rockhounds. Speak up and be heard!

ALAA Watchdogs

Source: <https://www.blm.gov/press-release/bureau-land-management-announces-draft-environmental-impact-statement-desert-plan>

SACRAMENTO, Calif. – The Bureau of Land Management has released a draft environmental impact statement and plan amendment for the three plans that underlie the Desert Renewable Energy Conservation Plan (DRECP). The public comment

period will end on April 15, 2021.

The BLM is proposing targeted amendments to the California Desert Conservation Area Plan, the Bakersfield Resource Management Plan, and the Bishop Resource Management Plan. These amendments are intended to promote economic growth, support broadband infrastructure development, increase public access, and allow for greater management flexibility in order to meet our nation's energy needs.

The following is a little background on who is expected to be nominee for Secretary of the Interior and is expected to be passed by Congress.

This information is from an article that was written by GovTrack Insider staff writer Jesse Rifkin. This was on the GovTrack.us on Dec.28, 2020.

Deb Haaland is Joe Biden's nominee for Secretary of the Interior; how has she voted on Interior issues in Congress?

A member of the Laguna Pueblo tribe, Rep. Deb Haaland (D-NM1) has been nominated as the first-ever Native American Cabinet secretary. The first-term congresswoman, previously chair of the New Mexico Democratic Party, currently serves as Vice Chair of the House Natural Resources Committee, including as Chair of the Subcommittee on National Parks, Forests, and Public Lands. The \$12.6 billion department she is poised to run, subject to Senate confirmation, controls about one-fifth of all U.S. land. It also houses such bureaus as the National Parks Service, the U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs.

A month into her congressional tenure, the very first bill Rep. Haaland ever introduced was the ANTIQUITIES Act, which stands for "America's Natural Treasures of Immeasurable Quality Unite, Inspire, and Together Improve the Economies of States." The bill would clarify that Congress must officially declare any national monuments. It would also re-expand Bears Ears to 1.9 million acres and designate about 250,000 acres in Rep. Haaland's home state of New Mexico as federally protected.

From 1933 to 1942, during the Great Depression, the federal government ran the program Civilian Conservation Corps, employing hundreds of thousands of people to plant more than three billion trees and construct trails in more than 800 parks. The Climate Stewardship Act would resurrect this program under the new name Stewardship Corps. The 84-page bill also contains provisions restoring 2+ million acres of coastal wetlands and investing in renewable energy.

The Reconciliation in Place Names Act would create a new 16-member Advisory Committee on Reconciliation in Place Names to advise the board. This committee would consist of four Native American tribe members, four people with expertise in civil rights or race relations, four people with expertise in anthropology or cultural studies, one person representing a tribal organization, with the last three intended to represent the general public at large.

Citrine

Citrine is one of the most valuable and popular gemstones in the quartz group. While many citrines on the market today are actually heated amethyst or smoky quartz, citrine does occur naturally in beautiful golden and brownish-orange hues. It's also possible that quartz crystals that grew naturally as amethyst or smoky quartz were turned into citrine by natural heat from nearby magma activity. Citrine is one of the most valuable and popular gemstones in the quartz group.

Name Origin and Meaning: Replacing the simple name of yellow quartz, the name "citrine" was officially adopted for this stone in 1556 when German metallurgist Georg Bauer, known to some as "the father of modern mineralogy," used it in a publication about gemstones and jewelry. The word "citrine" has a few potential sources, all related to citrus fruits. The most likely root of this word is from the old French word citron, meaning "yellow," or the Latin word citrus, in reference to citrus fruit. Around the 17th century, both citrine and smoky quartz were called "cairngorm" after their source in the Cairngorm Mountains of Scotland. "Madeira citrine" is the term used for darker, orangey-brown citrines, so named because they share their color with Madeira wine.

History: Citrine has been used ornamentally on tools and in jewelry for thousands of years. In ancient Greece, the stone now known as citrine first gained popularity as a decorative gem during the Hellenistic Age, roughly between 300 and 150 B.C. In the 17th century, Scottish weapon makers used citrine to adorn dagger handles, sometimes even using a single large citrine crystal as the handle itself. Some Biblical scholars believe that citrine was the tenth of twelve stones in Aaron's breastplate described in the book of Exodus. The stone was referred to as chrysolitus (Greek for "golden stone") in both Roman Catholic and Latin versions of the Old Testament, leading to some confusion over whether it was citrine, topaz, or beryl. However, in the King James Version, the tenth stone is referred to as beryl, meaning it would be heliodor, and modern scholars believe the stone was actually topaz.

In 1852, after Queen Victoria married Prince Albert, they built Balmoral Castle in the Scottish Highlands. Because she was so fond of her new home and Scotland in general, the queen often had parties for which she required her guests to dress in full Highlands attire. This gave Victoria a good opportunity to share another of her loves: gemstones

Attention: All Newsletter Subscribers

If you, or someone you know should be receiving this newsletter electronically and are not, please contact Bob Pattie or myself (Glenn Morita).

We are trying to keep our mailing list current and want to make sure that everyone who wants an electronic version of the newsletter gets one.

Local Area Shows for 2021

| | | | |
|---|--|---|--|
| March 2021 13th 9am - 6pm 14th 10am - 5pm | Northwest Montana Rock Chucks | Gold, Gem, and Mineral Show | Flathead County FairgroundsExpo Building (next to grandstands)265 North Meridian RoadKalispell MT |
| March 2021 27th 10am—6pm 28th 10am - 5pm | Sweet Home Rock & Mineral Society | 72nd Annual Rock & Mineral Show “Petrified Wood” | Sweet Home HS Activity Gym 1641 Long St. Sweet Home, OR |
| April 2021 23rd 10am - 4pm 24th 10am - 5pm 25th 10am—4pm | Yakima Rock & Mineral Club | 59th Parade of Gems Adults - \$6 \$5 w/coupon Students - \$2 K - 12 years free w/ paying adult | Central Washington State Fair Ground Modern Living Building 1301 South Fair Avenue Yakima ,WA 98901 |
| May 2021 1st 10am—5pm 2nd 10am—4pm | Billings Gem and Mineral Club | Gem and Fossil Show | Al Bedoo Shrine Auditorium 1125 Broadwater Avenue Billings MT |
| June 2021 5th 9am - 5pm 6th 10am - 4pm | North Idaho Mineral Club | Annual show | Kootenai County Fairgrounds 4056 North Government Way Coeur d’Alene ID |
| June 2021 18th 10am - 5pm 19th 9am - 5pm 20th 10am—4pm | Lower Umpqua Gem & Lapidary Society | Annual Rock And Gem Show | Reedsport Community Building 451 Winchester Avenue Reedsport OR |

found within her kingdom, citrine in particular. As a result, citrines set in traditional Highlands shoulder brooches and kilt pins became popular.

From Hard Rock News, 10/20, via 11/19 Golden Spike News

Mini Miner Happy Holidays, Mini Miners!

May this season be a blessing to you: good health, happiness, celebrations, family...and no COVID infections. Thank you for being part of the Mini Miners/Diamond Dan family for another year. I appreciate you all very much.

Epsom Salt “Frost”

Winter is starting to kick in here in New York State. It hasn't been really cold yet, but by December, we will all be wearing heavy sweaters and hats. So, it's soon the season for frost crystals on the windows! We found a recipe for making “frost crystals” using Epsom salt, hot water and a little dish detergent. Give it a try!

Materials:

What You Need 1/3 cup Epsom salt (magnesium sulfate)
1/2 cup hot water (use hot water from your kitchen faucet)
Liquid dishwashing detergent

What to Do :

1. Dissolve the Epsom salt in the hot water. Put the Epsom salt in a glass bowl and pour the hot water onto the Epsom salt. Stir until the Epsom salt completely dissolves. (If the salt doesn't completely dissolve, microwave the solution, but not for very long - about 20 seconds.)

CAUTION: Be very, very careful to handle the hot water with great care and do not spill it on your skin. Hot water can cause very serious burns.

2. Add a few drops of liquid dishwashing detergent. (When you are done and want to wash your window clean again, the detergent will make the clean up a lot easier!)

3. Use a paper towel or rag to wipe a window with the solution. Crystals will form in 20 to 30 minutes.

Notice how the crystals form. You will see dendrites. You will also see crystals growing out (radiating) from a central point. They will look like other minerals you may have seen like hematite, pectolite and wavellite . You can actually see dozens of radiating crystals growing right before your own eyes! Of course the crystal groups on your window will be flat.

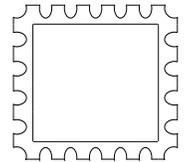
You can see this experiment in action on YouTube at <http://www.youtube.com/watch?v=e9Kntk47P6k> (it might be easier to put “crystal frost window paint” in the YouTube search bar.) This idea first came to our attention through About.com Chemistry.

Blessings to you all Darryl aka Diamond Dan
Source: (Mini Miners Monthly) A Monthly Publication for Young Mineral Collectors Vol. 12 No. 12 December 2020 Darryl Powell 704 SW 2nd Terrace Pompano Beach, FL 33060

From Yakima Rock & Mineral News, 01/21

Westside Board Meeting
Tentatively 03/16/20
7:30pm
Via Skype

COUNCIL REPORTER, Monthly publication of The
Washington State Mineral Council



WASHINGTON STATE MINERAL COUNCIL
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