

Rock Writings

November, 2023

Newsletter of the Nevada County Gem & Mineral Society

Vol. 56, #11



**"Earth's Treasures" Setup
Friday Oct 6**



...And memories of Rudy Thompson, probably the oldest member of the club. He was 110 years young!



**Was a GREAT show!
Thank you ALL who
helped, and all who
attended!**



NCGMS President's Message November 2023

Leaves are falling and the year is coming to a close. Our Club has had a good year, with membership growth and a successful Gem and Mineral Show this October. I want to thank all who worked so hard on our show!

We will vote in a new Board at the November meeting. The Nominating Committee is pleased to present the membership with a strong leadership slate.

We will begin the new 2024 year with a new specimen camera, and the Board has approved purchase of a flat screen Monitor we can use for presentations and DVD presentations from CFMS.

I want to thank the membership for making this a rewarding year for the Nevada County Gem and Mineral Society, established April 22, 1966.

I will say again, this is our club, let's all make our 58th year the best! It has been an honor to serve you all as President this year.

Dennis Geare

President

NCGMS

ATTENTION: NCGMS MEMBERS

This year's nominating committee will present a slate of nominees for the 2024 NCGMS Board at the general meeting. Nominations will be accepted from the floor. Be there at the November 7th meeting to vote!

Meeting Minutes: Unfortunately the meeting minutes for the October, 2023 Board and General meetings were not available by press time.

Meeting Minutes Board Meeting NCGMS September 5, 2023

(For archival purposes we present the September Board Meeting Minutes. The General meeting minutes were not available at press time – ed)

A quorum was reached. VP Trygg presiding

Other board members present: Sheila Baker, Christie Harris, Blaze Baker, and John Dolman. The minutes from the last meeting were accepted.

The trailer was damaged, display cases were damaged from melting snow and skylight was broken, letting water into the trailer. The vent is to be fixed. We need a silent auction operative! Blaze is to have the tailgate on a cool day, the date is not set. Maraposite was donated by John Dolman, just come and pick it up. The rock pile donated by J.C.D. Jr. was picked up by Debe Taylor, and taken to her home for later delivery for the silent auction. Frank picked up the grab bags donated by John Dolman, better a week late than never. Debe T. also came to find Frank beat her to them (sic).

The meeting was adjourned at 1845 Hr.
Respectfully submitted by John Dolman

Membership:

Welcome New Members!

Suzy and Michael Forwood

Sharon Hadley (who was a worker at the show. Thank you!)

(Returning members) Ernesto and Lorena Fuentes

Welcome to you all!

The winner of the "**Free Membership for a Year**" drawing at the show was Mark Hutchison. Mark left only an email address (emailed to twice without response) and no phone number. Does anyone know Mark? Please let the membership chair know.

November Birthdays – Happy Birthday!

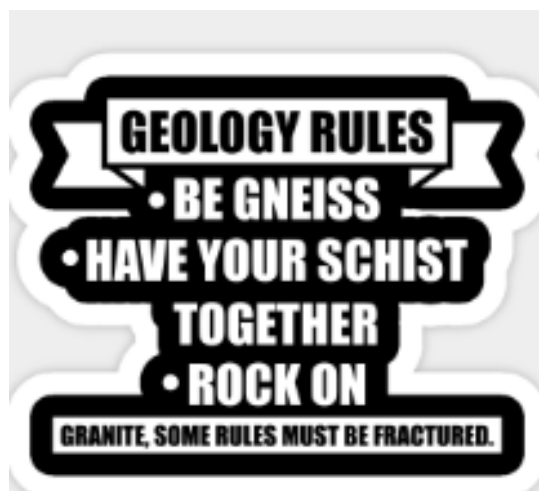
Karla Aaron

Agnes Walker

Gwen Fissel

James Manning

Robert Woodhall



Rock Writings Readership...

We asked recently for “readers to let us know if they read this stuff...” Well, about 10% of the Email newsletter readers responded as did *one* of the U.S. Mailed newsletter readers. We are pleased that we are being read and that the newsletter is of value.

A future Board discussion is whether the Newsletter should go “all Electronic” (email, as some clubs have). Do you know it costs about \$1.80 for EACH U.S.Mailed newsletter PER month?

NCGMS 2023 Field Trips (*please double check before the trip to ensure it is still planned*):

Some shorter, easy, and local trips are being sought for 2024 – if you have any ideas please share them with the club . . .



2023 TRIPS	HOST
Nov/Dec – TBD – Big X Mtn for smoky quartz crystals (will be briefed at the Nov 7 general meeting)	John Dolman

What's the deepest-occurring gemstone on Earth?

By Amanda Heidt for Live Science Oct 21, 2023

In Virgin Valley, Nevada, it's possible to spend an afternoon digging for rare black fire opals, while visitors to Coalinga, California, can scour the dirt for pieces of the state's official gemstone, benitoite. At Arkansas' Crater of Diamonds State Park, aspiring gemhounds pay just \$10 to hunt for the world's most sought-after stones.

Each of these outings requires little more than hand tools, yet most gemstones originate between 3 to 25 miles (5 to 40 kilometers) belowground, and some extend far deeper.

But which gemstones are found the deepest, and how do they make their way to the surface?

According to Lee Groat, a mineralogist at the University of British Columbia, the deepest known gemstones are diamonds, sought for their beauty, use in industry and the scientific data they contain.

How diamonds form still isn't entirely understood, but laboratory experiments show that the gemstones crystallize only under extreme pressures. Most naturally occurring stones have been traced to the upper mantle, at depths between 93 and 186 miles (150 to 300 km), where pressures can reach beyond 20,000 atmospheres.

For a long time, this put diamonds in competition with a gem called peridot for the title of deepest-occurring gemstone. Peridot is the gem form of a mineral called olivine that makes up more than half of the upper mantle, which extends from the base of the crust down to 255 miles (410 km). But in 2016, scientists described a collection of superdeep diamonds sourced from around 410 miles (660 km), and another batch in 2021 was determined to come from a depth of 466 miles (750 km).

"It'd been hard to tell whether diamonds or peridot were the deepest, but that pretty much settled the debate," Groat said.

To come up with those estimates, researchers studied the diamonds' crystallization patterns as well as their inclusions — bits of mineral or fluids entombed in the gems from when they were formed. Inclusions of a mineral called bridgmanite and iron-nickel-carbon-sulfur melt told scientists that these superdeep diamonds likely formed in the lower mantle, which is made up of about 75% bridgmanite, and that they grew from liquid metal surrounded by methane. At these depths, pressures can exceed 235,000 atmospheres.

Diamonds are also thought to be extremely old. Some estimates suggest that diamonds on the surface today may have formed up to 3.5 billion years ago, although many are much younger. Their longevity is attributed to the strength of their chemical bonds, Groat said. Diamonds are made of carbon, and because they form under pressure, "it takes a great force to break their bonds apart." Heating a diamond above 1,652 degrees Fahrenheit (900 degrees Celsius) will cause it to degrade into graphite.



Diamonds form deep in Earth's mantle over billions of years before making their way to the surface. (Image credit: Reinhard Rohner via Getty Images)

Gemologists didn't need to burrow into the Earth to learn this; the deepest we've ever penetrated into the planet's interior, at the Kola Superdeep Borehole in Russia, barely scratched the surface, at just 7.8 miles (12.6 km) deep.

Instead, diamonds are brought to the surface by a unique type of magma called kimberlite. Kimberlite magmas tend to be volatile, erupting at speeds of more than 100 feet per second (30 meters per second) and pulling diamonds from the surrounding rocks as they go. In this way, gemstones that formed over billions of years jettison to the surface in months or even hours.



We don't need to probe hundreds of miles below the surface to reach diamonds because natural geological processes bring them to the surface. Even still, diamond mines can be massive operations. (Image credit: John Carnemolla via Getty Images)

Beyond their aesthetic value and their natural hardness, which makes them attractive to industries interested in blades, drill bits and polishing powders, diamonds contain priceless scientific information, said Ananya Mallik, an experimental petrologist at the University of Arizona. In many cases, "diamonds are the only sources that researchers have for understanding the makeup of the planet's interior and the processes taking place there," she told Live Science.

By studying these gemstones, scientists have learned that early Earth wasn't as tectonically active as it is today. Other analyses have revealed carbon signatures consistent with photosynthesis, showing that the carbon cycle reaches deep into the planet's interior. More recently, scientists

studying rare diamonds found evidence of water deeper in the mantle than previously expected, and even discovered entirely new minerals.

"Diamonds have their own value because of their beauty, but in addition to that, their scientific importance makes them even more valuable," Mallik said.

Early November ... the South and North Taurids Meteor Showers

-Posted by Editors of EarthSky October 21, 2023

Predicted peak: The South Taurids' predicted** peak is November 6, 2023, at 0:47 UTC. The North Taurids' predicted peak is November 13, 2023, at 0:21 UTC. Both the South and North Taurids don't have very definite peaks. They ramble along in October and November and are especially noticeable from late October into early November, when they overlap.

When to watch: Best around midnight, and probably best from late October into early November.

Overall duration of shower: The South Taurids run from about September 23 to November 12. North Taurids are active from about October 13 to December 2.

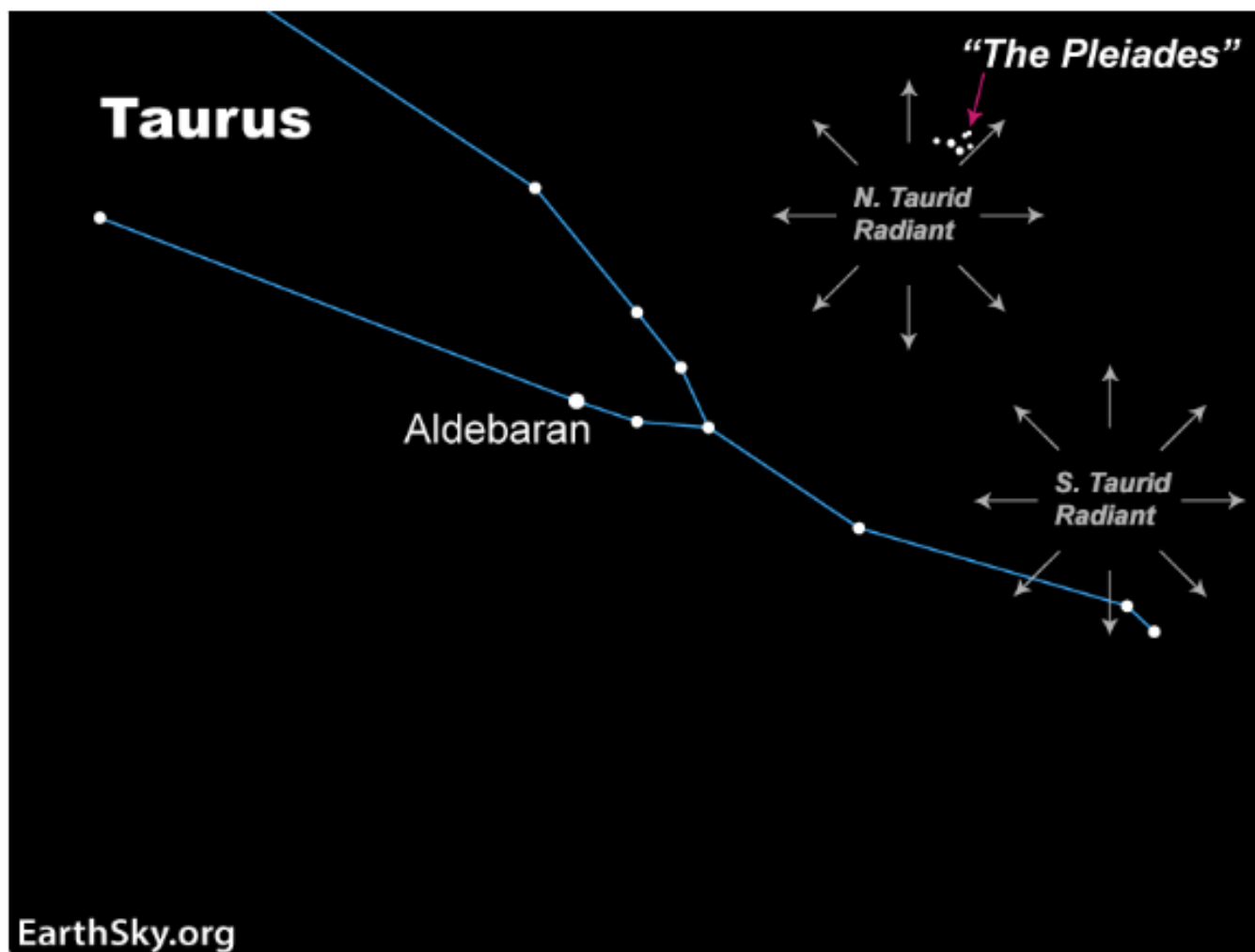
Radiant: Rises in early evening, highest in the sky around midnight. See chart below.

Nearest moon phase: In 2023, the last quarter moon falls on November 5. New moon is November 13. So near the first predicted peak, the waning crescent moon may interfere with meteors after midnight and before

dawn. However, the second predicted peak is around new moon so you can enjoy watching for meteors in a moonless sky. You'll catch Taurid meteors throughout October and November. Visit Sunrise Sunset Calendars to see moon rising times for your location. Be sure to check the moon rising time box.

Expected meteors at peak, under ideal conditions: Under dark skies with no moon, both the South and North Taurid meteor showers produce about five meteors per hour (10 total when they overlap). Also, watch for fireballs.

Note: Taurid meteors tend to be slow-moving but sometimes very bright. The showers sometimes produce fireballs, which made their cyclical reappearance in 2022. The American Meteor Society pointed to "a seven-year periodicity" with Taurid fireballs. 2008 and 2015 both produced them. 2022 did as well. The Taurid fireball display, in 2015, was really fun!





2023 CFMS Shows

<p>November 3, 4 & 5, 2023 – Eureka, CA Humboldt Gem & Mineral Society Humboldt Gem & Mineral Society 68th Annual Show 3750 Harris St., Eureka, CA 95503 Hours: Friday 9 AM – 6 PM, Saturday 10 AM – 6 PM, Sunday 10 AM – 5 PM Live Demonstrations, Games for the kids, Geode Cutting, Vendors with Gemstones, Rocks, Lapidary Tools & Equipment, Fossils and Jewelry</p>	<p>November 4, 2023 – Lake Elsinore, CA Lake Elsinore Gem & Mineral Society 32097 Corydon Rd., Lake Elsinore, CA 92530 Hours: 10 AM – 4 PM Rock and Craft Show Contact: (909) 208-6956, berylman50@aol.com</p>
<p>November 4-5, 2023 – Concord, CA Contra Costa Mineral & Gem Society Centre Concord, 5298 Clayton Road, Concord, CA 94521 New vendors, additional family activities, along with our entry door prizes, free rock give away to kids, rock painting and many other things to do! Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4 PM Contact: mike@diablorocks.com Website: Contra Costa Mineral and Gem Society Facebook</p>	<p>November 4-5, 2023, Ridgecrest. CA Indian Wells Gem & Mineral Society Desert Empire Fairgrounds, 520 S. Richmond Rd., Ridgecrest, CA 93555 Indian Wells Gem & Mineral 67th Gem & Mineral Show. Located in Ridgecrest, CA. Vendors selling gems, minerals, rocks, jewelry and other rock related items for sale. Field trip on Sunday, November 5th at 9:30 AM (dependig on road conditions). Free Admission and Free Parking. Vendor spaces available: Contact John De Rosa (760) 375-7905 Contact: (760) 375-7905, iwgmjfrocks@gmail.com</p>
<p>November 18-19, 2023 – Lakeside, CA El Cajon Valley Rock Round Up! El Cajon Valley Gem and Mineral Society 12584 Mapleview St., Lakeside, CA 92040 Hours: Saturday 9 AM – 5 PM, Sunday 9 AM – 4 PM Contact: (619) 277-4981, ecvgms@gmail.com Website: http://ecvgms.org</p>	<p>December 2-3, 2023 – Barstow, CA Mojave Desert Gem and Mineral Society Cora Harper Community/Fitness Center 841 Barstow Road, Barstow, CA 92311 Hours: Saturday and Sunday 10 am – 5 pm Contact: John Printz (760) 979-6138, MDGMSsecretary@gmail.com Website: http://www.mdgms.net</p>
<p>2024</p>	
<p>January 20-21, 2024 – Exeter, CA Tule Gem and Mineral Society Exeter Veterans Memorial Building, 324 North Kaweah Ave., Exeter, CA 93221 Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4 PM 2024 Gemboree Contact: Gayle Bingaman, Show Chairperson, (559) 802- 6029, bandgbing@aol.com Website: http://www.tulegem.com</p>	<p>February 17-18, 2024 – Antioch, CA Antioch Lapidary Club Contra Costa County Fairgrounds, 1201 West 10th Street, Antioch, CA Hours: Saturday 10 AM – 5 PM, Sunday 10 AM-5PM Jewelry, Gems, Findings, Supplies, Auctions, Grab Bags, Exhibits and hands on projects for kids. Admission \$6.00, Children 12 & under, scouts in uniform and Active Military Free. \$1.00 off admission with show flyer. Contact: (510) 693-9075, kellyplumb900@yahoo.com Website: http://antiochlapidaryclub.com</p>

<p>March 2-3, 2024 – Ventura, CA Ventura Gem & Mineral Society Ventura Co. Fairgrounds, 10 W. Harbor Blvd., Ventura, ca Hours: Saturday 10 AM – 5 PM, Sunday 10 AM-4PM Dealers and exhibits, demos, gold panning, kids activities, raffle & silent auctions, Country Store an plant sale, free resources for teachers. A SoCal tradition for 60+ years. Contact: (805) 312-8467, info@vgms.org Website: http://www.vgms.org</p>	<p>March 23-24, 2024 – Angeles Camp, CA Calaveras Gem and Mineral Society 2465 Gun Club Rd., Angeles Camp CA 95222 Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4 PM Annual Calaveras Gem and Mineral Show: Adults \$5.00, Children under 12 FREE with paying adult. Amazing displays, vendors and demonstrations, silent auction, Fun and interesting activities for children. Treasure Hunt, Door Prizes! Food on sit. FREE PARKING. Great Fun. Contact: (209) 736-4892, dbrooks49@att.net Website: http://CalaverasGemandMineral.net</p>
<p>May 4-5, 2024 – Lancaster Antelope Valley Gem & Mineral Club 2551 W Ave. H, Lancaster, CA 93536 Hours: Saturday 10 AM – 5 PM, Sunday 10 AM – 4 PM AVGMC Rock, Jewelry and Gem Show. Parking and Admission are free. Plenty of vendors, displays and activities for the whole family. Contact: marylandoriele@gmail.com</p>	<p>October 2024, Date TBD Grass Valley CA Our Show!</p> <p>Also, “Google” the words “oregon gem and mineral society shows”: many shows (closer than the SoCal shows – <u>and no state tax</u>) show up.</p> <p>Nationally: http://www.amfed.org/fed_shows.htm</p>

Also, The Calaveras Gem and Mineral Society has announced its next tailgate to be November 4th, 9:00 AM to 4:00 PM.

Contact email: calaverasgemandmineralsociety@gmail.com \$10 for the spot. Bring your own tables, etc

A Wine For Rockhounds - Rockhound Wine launching in St. Helena

-Northbay Business Journal, April 7, 2023

Reed and Megan Skupny, the second generation of Lang & Reed Napa Valley, have launched their own winemaking company, Rockhound Wine, in St. Helena.

The company stated it plans to come market with Magnums of 2022 Hawkbox Rosé of Pinot Noir (\$85). Sourced from Radian Vineyard in the Santa Rita Hills, this single vineyard Rosé will be offered exclusively in magnums.

Winemaker Reed Skupny has made wine in three continents, currently works alongside highly acclaimed winemaker Russell Bevan, and as a consultant for his father, John Skupny, on Lang & Reed Napa Valley.



Reed and Megan Skupny, the second generation of Lang & Reed Napa Valley, have launched their own winemaking company, Rockhound Wine, in St. Helena. (courtesy of Rockhound Wine)

Nevada County Gem & Mineral Society

P.O. Box 1686, Grass Valley, CA 95945-1686

2023 Officers

PRESIDENT	Dennis Geare
VICE PRESIDENT	Eric Trygg
SECRETARY	John Dolman
TREASURER	Sheila Baker
DIRECTORS	Christie Harris Polly Marie Blaze Baker

2023 Committee Chairpersons

CLUB PICNIC	Lori Woodhall	
FEDERATION DIRECTOR	Frank Van Hecke	
HISTORIAN	Beverly Glenn	
HOSPITALITY	Christie Harris	
JUNIOR PROGRAM	Julie DeHollander Cheryl Hendrickson	
LIBRARIAN	Beverly Glenn	
MEMBERSHIP	Charles Lindquist	webmaster@ncgms.org
NEWSLETTER EDITOR	Blaze Baker acting	
NEWSLETTER PUBLISHER	Charles Lindquist	webmaster@ncgms.org
REFRESHMENTS	Monthly Birthday Honorees	
SCHOLARSHIP		
SHOW ORGANIZER	Frank Van Hecke	
SUNSHINE	Lori Woodhall	
TREK LEADER (Field Trips)	John Dolman	
WEBMASTER	Charles Lindquist	webmaster@ncgms.org

Nevada County Gem & Mineral Society Meetings

The Nevada County Gem and Mineral Society meets monthly with few exceptions. Membership is informed of exceptions on the website, at meetings and through Rock Writings. You are welcome to attend any meeting.

General Membership Meeting: First Tuesday of the month, 7:00 p.m.

Executive Committee Meeting: First Tuesday of the month, 6:00 p.m.

Golden Empire Grange Building, 11363 Grange Ct., Grass Valley, CA

NCG&MS is a non-profit organization with the following objectives:

Membership Information

- To promote the study of mineralogy, geology & fossils
- To encourage the collection of minerals and gems
- To foster the study and practice of the lapidary arts
- To provide field trips to mineral localities
- To promote good fellowship, education and recreation

Yearly membership dues for NCG&MS are \$25.00 for singles and \$30.00 for families. *Deduct \$5.00 if you receive your newsletter via email* For information or an application, email our Membership Chairperson Charlie Lindquist at gvrnner99@yahoo.com

Check out our website at: <https://www.ncgms.org>



Nevada County Gem & Mineral Society
PO Box 1686
Grass Valley, CA 95945-1686

First Class Mail



November 2023

General Meeting: Tuesday, November 7, 2023. 7:00 PM

Program: *Unknown at press time*

Board Meeting (In Person. All are welcome!). 6:00.

Meeting: First Tuesdays Monthly at 7:00 p.m.

(no meeting in July - Picnic)

Golden Empire Grange Guild

11363 Grange Ct., Grass Valley

 **Bring a Friend!** 

2023 Membership dues

Yearly membership dues for NCG&MS are \$25.00 for singles and \$30.00 for families. Deduct \$5.00 if you receive your newsletter via email. Dues are annual and payable in January.