

# Rock Writings

June, 2024

Newsletter of the Nevada County Gem & Mineral Society

Vol. 57, #6

## Nuggets From The Prez

*Why didn't the oyster share her pearl? She was shellfish, of course!* The Pearl, Alexandrite, and Moonstone are June's birthstones, what a nice collection.

Not much of a spring, summer came quickly and the valley hit 90s overnight it seems. While most of you were getting pounded with that last big Nevada County rain in May, I was "enjoying" howling winds with Rich during a multi-day rockhound trip through central Nevada. I'll remember blowing playa-dirt goggles next time (thankfully, Rich had another pair for me). We came home with lots of rocks!

Last weekend's tailgate show was a success. The vendors I spoke with all were happy and are looking forward to next year. It seemed to fit a need I had suspected for a long time: Desire for lower dealer fees and a place to sell/trade secondary material. It is hard to make any money selling \$5 rocks or \$8 stands of beds when table fees are \$150 per table. The Banner grange was very happy too since we raised nearly \$400 from booth fees. I really couldn't be happier about the outcome overall.

I also want to thank Rich, Gwen, Lori, and everyone who helped in any way with promoting the event. We did it on the cheap and it worked! Melissa at the grange proposed a couple options for other shows that are interesting, mulling that over now/will see.

Speaking of rock shows, our big show is coming and October will be here before we know it (how about that segue)? Mike made a list of things that need to happen (from our archives and Frank's guidance) for a successful show he will bring to the June meeting.

As I write this, nearly all positions need support: A show Chair (to coordinate), advertising/marketing, show day volunteer coordination, and more to reach the show weekend. Volunteers will also be needed during the show for setup, programs, night security, and tear down. The phrase "many hands make light work" applies.

Frank has offered to continue some support (coord vendors, food, and display cases), provide guidance to a new show lead, and he has already pulled fairground's paperwork so our weekend is fixed on October 5-6, 2024.

In addition to the program at the June meeting, show support will be discussed, this is important. Without broad support, we risk our biggest community event coming to fruition at all – please consider signing on to help. It is the make-or-break time now....

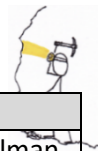
In addition to show support, it is not too early to think about volunteering to support next year's board, holiday events, reviews, and other support.

Lori made arrangements with Nevada City to use Pioneer park next to Little Deer Creek again for the July picnic. Last year was fun, and the popsicles Dan brought on dry ice really hit the spot! More details will follow – maybe a rock swap, too?

I will not make the next meeting, Lori will run it. Hopefully I'll see everyone at the picnic.

Get out there, go on a field trip, enjoy summer, find some rocks, and please volunteer to support your club! -Blaze

## NCGMS 2024 Field Trips *(please double-check before the trip to ensure it is still planned):*



| 2024 Proposed Trips |   | HOST         |
|---------------------|---|--------------|
| May 24-25           | Ford Point area – quartz, small pyrite and limonite cubes   | John Dolman  |
| Jun 1               | Empire, NV Exploration for New Collecting Sites   | Laurie Hayek |
| Jun 15-16           | Markleeville area – quartz in rhyolite, chalcopyrite  | John Dolman  |
| Jun 22-23           | Nevada Lapis  | John Dolman  |
| June 27             | Highway 20 Argillite  | John Dolman  |
| Jul 4-6             | Crystal Peak – quartz, feldspar, chrysocolla  | John Dolman  |
| July 11             | Devil’s Postpile geology tour (Tahoe National Forest), possible gold panning  | Blaze Baker  |
| Jul 18-21           | Davis Creek   | John Dolman  |
| Aug 30-31           | Bagby   | John Dolman  |
| Sep 1-2             | Bagby   |              |
| <b>Oct 5-6</b>      | <b>OUR GEM &amp; MINERAL SHOW!!!</b>  |              |
| Oct 11-14           | Tuledad   | John Dolman  |
| Nov 28-30           | Big X area or Dec 7/14/21/28 (weather replacement dates)  | John Dolman  |
| TBD                 | Do you have an idea for a field trip? Maybe you know a nice place for rocks and don’t mind sharing with the club? Please contact us with your trip ideas! | varies       |

### Fieldtrip Report – Central Nevada 5/3/24 - 5/5/24

A couple members spent several days poking around west-central Nevada, visiting known collection sites as well as searching for new ones. The weather was glorious: howling winds, shadows of clouds racing across the landscape, and dust devils whirly giggling everywhere. We found purple fluorite (never gets old), blue and orange agates, massive onyx, and all kinds of smaller specimens of strange Nevada rocks.

The roads are still washed out, so patience and strong lumbar back muscles were required, but the effort was worth the reward! And the hot spring certainly helped our sore bodies.



## May Board Meeting Minutes (5/7/2024)

The meeting was called to order by President Blaze Baker at 6:02 pm.

Present were Blaze Baker, Mike Field, Cathie Field, Lori Woodhall, Eric Trygg, Sheila Baker and Edwina Swenson. Others Present: Charles Lindquist and John Dolman.

**Motion I:** Cathie made a motion to approve the minutes of April 2, 2024 as written.

Seconded: Lori

Vote – Carried unanimously.

Lori suggested that the club should schedule some demos by our members for our meetings so members can be introduced to various activities related to rocks and gems. Blaze suggested a demo on wire wrapping, rock identification, how to make rock stands for specimen display. etc.

Mike gave the treasurer's report for the month. There was a profit of \$558 from the auction at our last meeting. We will donate to the 16-1 mining museum.



**Motion II:** Lori moved to approve the treasurer's report as presented.

Seconded: Cathie

Vote – Carried unanimously

Charlie reported there was no news from the Membership chairman.

Lori reported that she has lined up a speaker for next month's meeting from the New Era Gems.

Blaze reported there has been no change on the storage space. We are paid through the end of June.

Lori will run the June and August meetings as Blaze will be out of the state at those times. July is picnic time!

Blaze talked a bit about the juniors program. There doesn't seem to be anyone who has stepped up to guide that group.

The tailgate event has been set up with the Banner Grange for 5/18/2024. Blaze has had lots of email response from out of the area. The Grange will charge \$15 per space to sellers. Blaze plans to be there the Saturday before 5/11/2024 to sell and see how it goes.

Brief discussion on our October show where Frank Van Hecke will handle the vendors, food vendors, cabinet cases and demonstrations. We need lots of folks to step up and volunteer if we are going to have a successful show.

Charles and Blaze attended the NUJHSD scholarship night and presented a \$500 scholarship to Evan Vanderwouw who will be majoring in ecological sciences and plans on attending CSU at Humboldt in Arcata. (*Editor's note: Go Lumberjacks!*) Once he has successfully enrolled in college we will be able to send his funds directly to the school in his name. He is to follow the rules laid out by Nevada Union High School District to receive his funding.

**Motion III:** Edwina made a motion to approve a very deserving club member with a life membership.

Seconded by Lori.

Vote – Carried unanimously.

Meeting adjourned at 6:45 pm.

Respectfully submitted by Sheila Baker, Secretary



## **May General Meeting Minutes (5/7/2024)**

President Blaze Baker called the meeting to order at 7:05 pm.

Pledge of Allegiance

Blaze welcomed the members and our guests.

Blaze outlined the program for the evening. He advised that Vice President Lori would be handling the meeting for June and August and July is our picnic.

Charles reported there is no new membership news.

John Dolman reported that there is a trip planned for 5/24-25/2024 to Ford Point for Quartz Crystals.

Lori asked members with businesses who wish to have their information be included in our newsletter Rock Writings and on our website to send her an email.





Jen from New Era Gems will be presenting at our June meeting on Tanzanite Mine specimens. Lori talked about having an occasional workshop at our meetings where members can demonstrate their skills and members can learn! Ideas are welcome.

Blaze reported that he and Charles Lindquist had recently attended NUJHSD Scholarship night and on behalf of our club presented a \$500 scholarship to Evan Vanderouw who is planning on attending CSU Humboldt majoring in Environmental Sciences.

Blaze reported that we are on for a Tailgate Show at the Banner Grange on 5/18/2024 8-3 pm. Parking space will be \$15.00 per seller, there has been a lot of interest from folks outside of our area. Members are encouraged to participate and sell.

Blaze has a cabinet for sale, see him for pictures/details.

Blaze talked about our upcoming show and the need for many volunteers. Frank Van Hecke will be taking care of vendors, food vendors cabinet cases and demonstrators. We need all hands on deck to support this major fund raiser for the club. Be ready to sign on the dotted line and step up!! It takes everyone In our village!!

Our picnic is scheduled for July 13, 2024 a Saturday at Pioneer Park in Nevada City. It is a potluck and lots of fun! Put it on your calendars!

Beverly Glenn advised that there needs to be some Spring Cleaning of the club's storage area down under the Grange Hall.

Our presenter was Fran Todd from the Roseville Rock Rollers who gave a talk on Opals. She talked about how she got "into" opals and had lots of specimens for us to look at. She talked about opals hardness and they are never stored in water.

Meeting adjourned at 8:45 pm.

Respectfully submitted by Sheila Baker, Secretary



## 2024 Nevada County Gem & Mineral Society Scholarship Winner



NCGMS awards an annual scholarship in the amount of \$500 to one local, graduating high school student who plans to attend university to study earth sciences.

Congratulations, Evan Vanderwouw, for being selected as this year's NCGMS High School Scholarship Award Winner! Evan has just graduated from the Ghidotti Early College High School. He was able to spend his Junior year as a Foreign Exchange Student in Thailand. Back in the United States he



volunteered for the Forestry Challenge, which sharpened his interest in forestry, the environment and geology. He has been accepted and plans on attending Cal Poly Humboldt. Evan has worked as a dog walker and dishwasher to save money for his personal expenses and is grateful for Scholarship Assistance.

## CFMS Updates & Shows (<https://www.cfmsinc.org/>)



### 2024 CFMS Shows

|   |  |
|---|--|
| <p><b>June 1, 2024 – Roseville, CA</b><br/> <b>Roseville Rock Rollers</b><br/>         Rock Sale and Swap Tailgater<br/>         8pm – 4pm<br/>         Carmichael Elks Lodge Parking Lot<br/>         5631 Cypress Avenue<br/>         Carmichael, CA. 95608<br/>         Join the fun &amp; have a nice day out with fellow rockhounds<br/> <b>FREE ADMISSION</b>, family friendly event, food &amp; soft drinks for sale</p>   | <p><b>June 8-9, 2024 – Escondido, CA</b><br/> <b>Palomar Gem and Mineral Club</b><br/>         California Center for the Arts – at the Conference Center, 340 North Escondido Blvd., Escondido<br/>         Hours: Saturday 10AM – 5 PM, Sun 10AM – 4 PM<br/>         Conference Center, 340 North Escondido Blvd., Escondido.<br/>         Admission: \$5.00, Children under 12 Free<br/>         Contact: 425. 281.6218,<br/>         tonifloyd41615@gmail.com</p>   |
| <p><b>August 3-4, 2024 – Roseville, CA</b><br/> <b>Roseville Rock Rollers Gem and Mineral Society</b><br/>         The Grounds Roseville, 700 Event Center Drive, Roseville<br/>         Hours: Saturday 10AM – 5PM, Sunday 10AM – 4PM<br/>         Over 70 vendors, inside/out, featuring: Crystals, Fossils, Minerals, Amethyst, Beads, Gemstones, Meteorites, plus Free – Scientific Mineral and Gem ID – bring your rocks for a no-cost Scientific Identification! Fun for Kids in “Education Station”, Petrified Wood, Stone carvings, many special exhibits. Demonstrations, Huge Rock Auctions. General admission \$10.00, Kids – 12 and under Free. Parking \$10. Tickets at the door, online, or grab a discount coupon on our website: <a href="http://www.rockrollers.com/">www.rockrollers.com/</a></p> | <p><b>September 21-22, 2024 – Monterey, CA</b><br/> <b>Carmel Valley Gem &amp; Mineral Society</b><br/>         Monterey Fairgrounds, 2004 Fairgrounds Road, Monterey, CA<br/>         Hours: 10 AM – 5 PM both days<br/>         Rocks, minerals, fossils, vendors, gems, silent auction, beads, equipment, exhibits, kind’s stuff, and jewelry<br/>         Contact: <a href="mailto:susieharlow@gmail.com">susieharlow@gmail.com</a><br/>         Website: <a href="http://cvgms.rocks">http://cvgms.rocks</a></p>  |
| <p><b>October 12-13, 2024 – Redwood City, CA</b><br/> <b>Peninsula Gem and Geology Society and Sequoia Gem and Mineral Society</b><br/>         Redwood City Community Activities Building, 1400 Roosevelt Ave., Redwood City, CA 94061<br/>         Hours: 10 AM – 5 PM daily<br/>         Rocks, Minerals, Fossils, Gems, Jewelry, Beads, Demonstrations, Kid’s Activities<br/>         Contact: <a href="mailto:cci@pacbell.net">cci@pacbell.net</a><br/>         Website: <a href="http://www.sequoiagemandmineralsociety.org/sgms-gem-mineral-show.html">www.sequoiagemandmineralsociety.org/sgms-gem-mineral-show.html</a></p>  | <p><b>October 26-27, 2024 – Sacramento, CA</b><br/> <b>Sacramento Mineral Society</b><br/>         Scottish Rite Center, 6151 H Street, Sacramento<br/>         Hours: Saturday 10AM – 5PM, Sun 10AM – 4PM<br/>         88th Annual Sacramento Gem, Mineral, &amp; Jewelry Show.<br/>         Free parking, \$8 adult admission, kids under 12 free with paid adult<br/>         Contact: (916) 662-5819,<br/> <a href="mailto:gemshow@sacramentomineralsociety.org">gemshow@sacramentomineralsociety.org</a><br/>         Website: <a href="http://www.sacgemshow.com">www.sacgemshow.com</a></p> |

### October 5-6, 2024, Grass Valley, CA

#### Our Show!

Also, search online using phrases like “Oregon gem and mineral society shows”; many shows (closer than the SoCal shows – and no state tax) show up.

Nationally: [http://www.amfed.org/fed\\_shows.htm](http://www.amfed.org/fed_shows.htm)

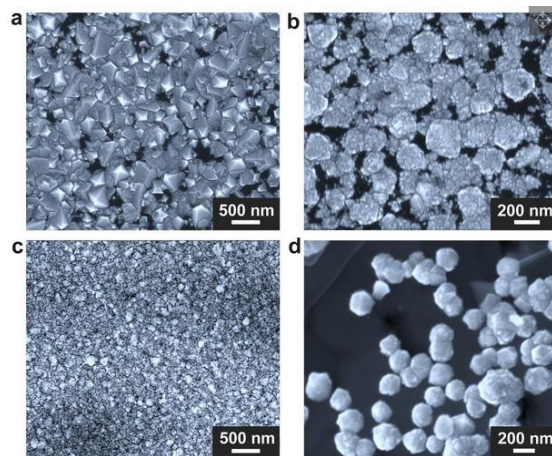


## Scientists Grow Diamonds From Scratch in 15 Minutes Thanks to Groundbreaking New Process

By Deepa Jain, *Live Science*

Scientists have used a new technique to synthesize diamonds at normal, atmospheric pressure and without a starter gem, which could make the precious gemstones much easier to grow in the lab.

Natural diamonds form in Earth's mantle, the molten zone buried hundreds of miles beneath the planet's surface. The process takes place under tremendous pressures of several gigapascals and scorching temperatures exceeding 2,700 degrees Fahrenheit (1,500 degrees Celsius).



Diamonds made with the new technique are mostly pure — but they're too tiny to fit on your finger. (Image credit: Institute for Basic Science)

Similar conditions are employed in the method currently used to synthesize 99% of all artificially created diamonds. Called high-pressure and high-temperature (HPHT) growth, this method uses these extreme settings to coax carbon dissolved in liquid metals, like iron, to convert it to diamond around a small seed, or starter diamond.

However, the high pressures and temperatures are difficult to produce and maintain. Plus, the components involved affect the diamonds' size, with the largest being about a cubic centimeter, or about as big as a blueberry. Besides, HPHT takes a fairly long time — a week or two — to produce even these tiny gems. Another method, called chemical vapor deposition, eliminates some requirements of HPHT, like high pressures. But others persist, like the need for seeds.

The new technique eliminates some drawbacks of both synthesis processes. A team led by Rodney Ruoff, a physical chemist at the Institute for Basic Science in South Korea, published their findings April 24 in the journal *Nature*.

### ***The Diamond Crucible***

The novel method was a long time in the making. "For over a decade I have been thinking about new ways to grow diamonds, as I thought it might be possible to achieve this in what might be unexpected (per 'conventional' thinking) ways," Ruoff told *Live Science* by email.

To start out, the researchers used electrically heated gallium with a bit of silicon in a graphite crucible. Gallium may seem like an esoteric element, but it was selected because a previous, unrelated study showed that it could catalyze the formation of graphene from methane. Graphene, like diamond, is pure carbon, but it contains the atoms in one layer rather than in the gemstone's tetrahedral orientation.

The researchers housed the crucible in a home-built chamber maintained at sea-level atmospheric pressure, through which superhot, carbon-rich methane gas could be flushed. Designed by co-author Won Kyung Seong, also of the Institute for Basic Science, this 2.4-gallon (9 liters) chamber could be readied for experimentation in just 15 minutes, allowing the team to rapidly undertake runs with different concentrations of metals and gases.

Through such tweaking, the researchers figured that a gallium-nickel-iron mixture — coupled with a pinch of silicon — was optimal for catalyzing the growth of diamonds. Indeed, with this blend, the team obtained diamonds from the crucible's base after just 15 minutes. Within two and a half hours, a more complete diamond film formed. Spectroscopic analyses showed that this film was largely pure but contained a few silicon atoms.

The minutiae of the mechanism that formed the diamonds are still largely murky, but the researchers think a temperature drop drives carbon from the methane toward the crucible's center, where it coalesces into diamond. Plus, without silicon, no diamonds form, so the researchers think it may act as a seed for the carbon to crystallize around.

However, the new method has its own challenges. One problem is that the diamonds grown with this technique are tiny; the largest ones are hundreds of thousands of times smaller than the ones grown with HPHT. That makes them too small to be used as jewels.

Other potential uses — for example, in more technological applications like polishing and drilling — for the diamonds synthesized with the new technique are unclear. However, because the process involves low pressure, Ruoff said, it might significantly scale up diamond synthesis.

"In about a year or two, the world might have a clearer picture of things like possible commercial impact," he added.





**Nevada County Gem & Mineral Society**  
**P.O. Box 1686, Grass Valley, CA 95945-1686**

**2024 Officers**

|                       |  |
|-----------------------|--|
| <b>PRESIDENT</b>      | Blaze Baker                                  |
| <b>VICE PRESIDENT</b> | Lori Woodhall                                |
| <b>SECRETARY</b>      | Sheila Baker                                 |
| <b>TREASURER</b>      | Mike Field                                   |
| <b>DIRECTORS</b>      | Eric Trygg<br>Edwina Swenson<br>Cathie Field |

*\*(Call, Text, or Email, no voicemail)*

**2024 Committee Chairpersons**

|                                  |   |                     |
|----------------------------------|---|---------------------|
| <b>CLUB PICNIC</b>               | Lori Woodhall                           |                     |
| <b>FEDERATION DIRECTOR</b>       | Frank Van Hecke                         |                     |
| <b>HISTORIAN</b>                 | Beverly Glenn                           |                     |
| <b>HOSPITALITY</b>               | Christie Harris                         |                     |
| <b>JUNIOR PROGRAM</b>            | Julie DeHollander<br>Cheryl Hendrickson |                     |
| <b>LIBRARIAN</b>                 | Beverly Glenn                           |                     |
| <b>MEMBERSHIP</b>                | Charles Lindquist                       | webmaster@ncgms.org |
| <b>NEWSLETTER EDITOR</b>         | Rich Cross                              |                     |
| <b>NEWSLETTER PUBLISHER</b>      | Charles Lindquist                       |                     |
| <b>REFRESHMENTS</b>              | Monthly Birthday Honorees               |                     |
| <b>SCHOLARSHIP</b>               | Polly Marie                             |                     |
| <b>SHOW ORGANIZER</b>            | Frank Van Hecke                         |                     |
| <b>SUNSHINE</b>                  | Lori Woodhall                           |                     |
| <b>TREK LEADER (Field Trips)</b> | John Dolman                             |                     |
| <b>WEBMASTER</b>                 | Charles Lindquist                       | webmaster@ncgms.org |

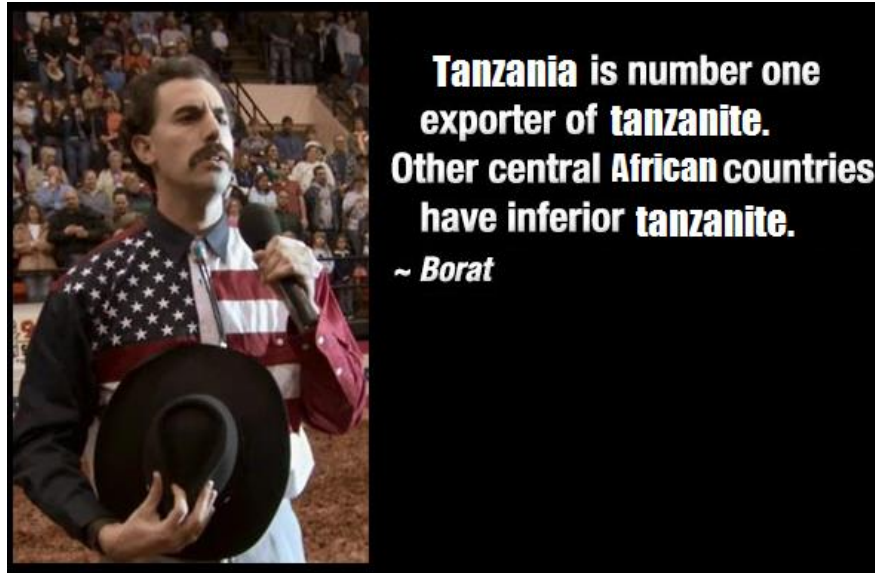
**Nevada County Gem & Mineral Society Meetings**

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**

**April's Meeting:** *Tanzanite Uncovered- an overview of this spectacular gem!*

Jenn Ulatowski, together with her husband Steve, have run New Era Gems since the 1970's. Experts on Tanzanite for decades, they have direct connections with mines in Tanzania. Jenn will share a bit of their personal story, plus fascinating information about this stone, examples to view, and more.





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

First Class Mail



*June, 2024*

**General Meeting: Tuesday, June 4, 2024**

Presentation: *Tanzanite Uncovered- an overview of this spectacular gem!*

**Meetings Monthly First Tuesdays**

**Board Meeting (All are welcome!) 6:00 p.m.**

**General Meeting and program at 7:00 p.m.**

**(no meeting in July - Picnic)**

**Golden Empire Grange Guild**

**11363 Grange Ct., Grass Valley**

**2024 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.

**Bring a Friend!**