

# The Sierra Pelonagram



December 2021

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*... Member of the California Federation of Mineralogical Society Inc. ...*

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The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.

### Field Trips

Hello Members

If you have any ideas and places you would like to collect on a field trip, please let Julie Tinoco know. It can be very challenging to work out new collecting areas within a reasonable travel time almost every month. Coordinates and other information will be very helpful too. Thanks!

### Dues

Dues are due now. They are considered late if not paid by the board meeting in February and membership will be dropped at the end of February. You can pay Shana, her address is on the roster, or send it to the club PO Box at 221256, Newhall CA 91322. Dues are \$25 plus \$5 for kids up to 18.



### January

Larry Holt  
Larry Patrich  
Robin Shane  
Martin Schreiner  
Austin Williams

### February

Adam Hamilton  
Brigitte Mazourek  
Alan Pollack  
John Wheeler  
Tina White



SEASONS GREETINGS!

### The Sierra Pelona Rock Club Insignia

The Sierra Pelona Rock Club is so named for the Sierra Pelona Mountains, located on the north side of the Santa Clarita Valley. There are three peaks that stand out above the rest of the mountains. Our insignia depicts the highest of these, named "Burnt Peak."

The pick and shovel are the tools of the rock hound. Nearly every rock club uses these images to denote the hobby.

Gold is on our insignia because in 1842, the first gold was discovered by Don Francisco Lopez, in Placerita Canyon. After sleeping beneath the boughs of an oak tree in what is now Newhall, he pulled wild onions from the ground, and discovered bright shiny gold particles clinging to the roots!

Oil in California was first found in Pico Canyon, located in the north end of Santa Clarita Woodlands Park. Pico Canyon was the site of the first commercially successful oil well in the western United States.

The Howlite from Tick Canyon is well known to be the finest in the United States. Tick Canyon has been a well known collecting area for high quality Howlite nodules.

The Sierra Pelona Rock Club has chosen for its colors, yellow and black, the colors of gold and oil. Howlite is our designated "club rock". Each new member is presented a slab of this special material.

### Officers:

President – Bill Webber  
Vice-President – Julie Tinoco  
Secretary: Heidi Webber  
Treasurer – Shana Brunes-Ruiz  
Federation Director (CFMS/AFMS) --Ron Rackliffe

### Chairpersons:

Claim--Linda Jenkins  
Donation Rock Table--Dianne Wholleben  
Equipment--Bill Webber  
Field Trips – Julie Tinoco  
Historian -Open  
Hospitality – Ron Rackliffe  
Membership – Heidi Webber  
Website-- Larry Holt  
Pelonagram Publisher, Editor – Heidi Webber  
Programs –Tina White  
Publicity –Open  
Sunshine--Brigitte Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at: Currently via Zoom

Contact the Club or the Sierra Pelonagram Editor at:

**Sierra Pelona Rock Club**

**P.O. Box 221256**

**Newhall, Ca. 91322**

Or e-mail: [hwebber@pacbell.net](mailto:hwebber@pacbell.net)

Visit the SPRC website [www.sierrapelona.com](http://www.sierrapelona.com)



### **President's Message**

Well! It looks like you have me for another year! We did get a little change in the board, so welcome to Don Cogan as our new CFMS representative and Tina White as secretary. Also, Linda Jenkins will be handling hospitality for the club. I want to thank the outgoing board members and chairs for their contributions to the club, all the various jobs are so very important.

If you didn't make it to the Holiday Party last Saturday, December 11, you missed a fun time. There was a boat-load of excellent food. Cheryl Cogan decorated the tables beautifully with greens and candles. Thank you so much Cheryl. Ron Rackliffe and Greg Mazourek did their usual Auction Show, there were a load of belly laughs from those two, almost everything sold and the club made some money. Thanks to all those who contributed to the auction. We were all cleaned up and out the door by 3pm. What a day!

Heidi and I hope you have a wonderful holiday and a very safe new year. See you in January!

Bill Webber, President (still)  
SPRC

### **Sierra Pelona Rock Club**

Board Meeting  
December 7, 2021  
Zoom

The meeting was called to order at 7:10pm. In attendance were Bill and Heidi Webber and Julie Tinoco. A quorum was met.

All plans are in place for the holiday party. No one has come forward and said they wanted to be a board member, but many decide to do that at the last minute during the party.

The next workshop will be January 29, 2022 at Bill and Heidi's home from 10-3-ish. More information will be given as we near the date.

Quartzite is January 19-23.

Sandra Cattell was voted in as our newest member. Congratulations Sandra!

Julie motioned to adjourn the meeting since we had covered everything on the agenda. Julie/Heidi.

The meeting was adjourned at 7:40pm.

Respectfully Submitted  
Heidi Webber, Secretary, SPRC

### **Sierra Pelona Rock Club**

General Meeting/Holiday Party  
December 11, 2021

The Holiday Party was called to order at 12:15 and started with the electing of the new board for 2022. Bill Webber said he'd stay on as president. Julie Tinoco agreed to stay on as vice-president as did Shana Brunes-Ruiz as treasurer. Tina White is replacing Heidi as secretary and Don Cogan will replace Ron Rackliffe as CFMS representative. Linda Jenkins will also take over the hospitality position from Brigitte Mazourek. The other committee chairs have said they'd retain their position.

Bill Webber—President  
Julie Tinoco—Vice-President  
Tina White—Secretary  
Shana Brunes-Ruiz—Treasurer  
Don Cogan—CFMS Representative

Congratulations to the SPRC Board for 2022! We'd like to thank the out-going board members for their service. And a big thank you goes to the various committee members for all the hard work you do too.

After the elections were done, dinner was ready. After everyone was stuffed, Ron Rackliffe and Greg Mazourek began the auction. It was a rollicking good time and money was made for the club. Thanks to all who donated items for the auction and to those who opened their wallets.

After the auction was concluded, everyone pitched in and the room was cleaned and all were on their way home to sleep off the turkey.

Thanks Everyone!

Respectfully Submitted  
Heidi Webber, Secretary, SPRC

## What are Geodes?



What, exactly, makes a geode a geode? The term refers to a specific type of rock structure where a roughly spherical cavity is lined with minerals. We typically associate geodes with beautiful, crystal-lined cross sections, but a geode can also be lined with amorphous, dull-colored minerals.

The minerals lining a geode can be one of many different varieties. Most often, geodes are lined with a variety of quartz like amethyst, smoky quartz, agate, or druzy quartz. Carbonate minerals like calcite and dolomite are also very common.

It's important to know that a geode is a secondary geologic structure. This means that they form after another process has finished. In this case, geodes first need a hollow cavity (called a vesicle) to form.

Geodes can be almost any size ranging from smaller than a walnut to as large as a car, but most are roughly the size of a baseball.

It is also important to distinguish between a geode and similar structures like nodules and thundereggs. The defining feature of a geode is that it is hollow. Given enough time, the void space in the vesicle may become entirely filled with mineral material. At that point, the rock would be referred to as a nodule or a thunderegg.

### How Geodes are Formed

It can be hard to imagine how something so unique and beautiful can form in nature, but the process is fairly well understood and is actually quite common, geologically. They require a specific set of circumstances in order to form, and therefore their occurrence is limited to areas in which these requirements have been met.

#### 1: Void Space

All geodes first require the creation of a void space within the rock. These voids generally form in two different ways.

The most common way is that gas pockets within volcanic basalt flows become solidified when the lava cools, leaving behind empty spaces in the rock. These gas bubbles are usually pretty close to round in shape, which is the primary driver of the final shape of the geode.

In other cases, voids form in sedimentary rock. This happens when soft material like organics or mud balls become trapped in the sediment. After the sediment has hardened into rock, that softer material decays and erodes away, leaving behind an empty cavity with the potential to become a geode.

#### 2. Precipitation of Minerals

The next requirement for geode formation is the precipitation of minerals out of saturated water. This means that water laden with dissolved minerals gradually deposits those minerals on the walls of the void space over time.

As rocks become older and more deeply buried, water is constantly (and slowly) seeping through the cracks and pores. This water is often heavily saturated with minerals like quartz and calcite. Over time, those minerals grow on the walls of the void spaces to form visible crystals.

The crystal growth in geodes generally happens in a concentric pattern, forming from the outside and growing inward. It is fairly common to see microcrystalline minerals like agate on the edges of a geode, transitioning into larger crystals like quartz or amethyst towards the center.

#### 3. Erosion of Surrounding Rock

The final thing a geode needs is to be exposed at the surface. Technically it's already a geode before this step, but in order for us to find it and enjoy it it needs to be found.

The geodes we find at or near the surface have typically been eroded out of their surrounding rock. Because geodes tend to be comprised of hard minerals like quartz they are more resistant to weathering than the rock around that they've been living in. Over time, they weather out of that surrounding rock and become free.

Some geodes are harvested directly out of the bedrock. For example, many of the famous Brazilian amethyst geodes (like the one pictured below) are found still contained within their original basalt flow. They have to be manually extracted in order to be sold on the open market.

### Varieties of Geodes

There is no formal classification system for geodes, but they are usually described and categorized by the crystals found within them and/or the location in which they were discovered.

For example, you will often see a geode referred to as an 'amethyst geode' or 'citrine geode'. You may have also heard of geodes from specific locations like Keokuk geodes or Dugway geodes. These are all just ways of describing to others some of the history and composition of each specimen.

As alluded to earlier, you can also separate geodes into two primary groups based on how they are formed. Volcanic geodes are formed in volcanic flows like basalts and tuffs, while sedimentary geodes are formed by the decay of soft organic material trapped within carbonate rocks.



Druzy Quartz

### Where to Find Geodes

Not surprisingly, the best places to find geodes tend to be in close proximity to old volcanic fields or sedimentary beds which have undergone the necessary processes described above. In the U.S., there are several famous geode beds that are very popular with collectors. Among the most famous are the Dugway geode beds in Utah, the Keokuk geode beds in southeastern Iowa, and the extensive beds in central Kentucky.

*Resource: Rockhound Resource*



Blue Agate

