# **The Sierra Pelonagram**



February 2025

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

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.

#### **Dendritic Crystal and Minerals**

Dendrite minerals are natural tree-like or moss-like formations found on or in rocks and minerals. These fascinating patterns form when an element or mineral migrates and branches outward from a point of origin, mimicking the appearance of tree branches or veins. The term "dendrite" comes from the Greek word "dendron," meaning "tree."Rock concert tickets

A single dendritic branch extends until reaching a point where growing various new branches becomes more favorable for some unknown reason. This growth is a result of anisotropic growth rates in different directions, often influenced by environmental factors like temperature, pressure, and chemical concentration.

Dendritic patterns typically form in environments with rapid changes in temperature or mineral solution concentration, such as volcanic or hydrothermal settings. The study of dendritic crystals provides insights into crystal growth mechanisms, mineral formation, and geochemical conditions. These patterns are also of interest in fractal geometry and the study of pattern formation in nature. Due to their unique and intricate patterns, dendritic minerals are highly valued by collectors and are often used in jewelry and decorative items. *Reference: GeologyIn.com* 



There were no minutes of the January General Meeting as it was canceled because of high winds, threats of wildfires, and under PSPS warnings, so not sure if we would even have electricity.





**February** Brigitte Mazourek Alan Pollack John Wheeler Tina White

**March** Ruth Hidalgo Jo Johnson-Dyer Ed Learn Maureen Thomas Bill Webber

#### **Officers:**

President - Tina White Vice-President – Julie Tinoco Secretary: Heidi Webber Treasurer –Ed Learn Federation Director (CFMS/AFMS) --Greg Mazourek **Chairpersons:** Donation Rock Table--Dianne Wholleben Equipment--Bill Webber Field Trips – Julie Tinoco Co-chair Field Trips--Jo Lasky Historian -Open Hospitality – Heidi Webber Membership - Heidi Webber Website-- Larry Holt Pelonagram Publisher, Editor - Heidi Webber Programs – Tina White Publicity – Open Sunshine--Yolanda Resnick

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 7:00 PM, on the 3rd Tuesday of each month at

# The Clubhouse of the Greenbrier Mobile Estates EAST 21301 Soledad Canyon Rd Canyon Country, CA 91351

Contact the Club or the Sierra Pelonagram Editor at: Sierra Pelona Rock Club P.O. Box 221256 Newhall, Ca. 91322 Or e-mail: <u>hwebber50@gmail.com</u> Visit the SPRC website <u>www.sierrapelona.com</u>



# Hey, Rockers!

How is it that January lasted 19 weeks, and we're already halfway through February? Oh well, that just means we're getting closer to good weather for field trips.

Thanks to some folks who were distributing their family's collections, we have new rock for tumble and some mega-chunks to cut into smaller pieces. Beauty awaits!

We do have a number of outings planned in the next couple months: Lavic Siding, Stoddard Wells, and a workshop at the Webber's! If you can't attend them all, we certainly hope we get to see you at least once.

Take care & have fun whatever you do ~ Tina White, SPRC President

#### Sierra Pelona Rock Club Board Meeting

February 4, 2025 Via Zoom

- The meeting was called to order at 7.03pm
- In Attendance: Jo, Heidi, Tina, Julie, Ed. A quorum was met.
- Minutes Tina moved to approve. Julie seconded, approved.
- Treasurer: Still several members need to pay dues. PO Box was paid. Ed received the insurance rider for the year. Ed asked about sold T-Shirts and hats. Tina will get him the money soon to bank.
- Tina said she'll bring shirts, hats and make a list to order more in various sizes. Julie said that the place she orders our business cards from (Vista Print) also makes shirts and would like to see different styles that we can order from them. It was decided that Tina will put some pages up on the board at the General Meeting for members to see what is available.
- Facebook and Website access: Jo now has access to the FaceBook page as a moderator. We discussed things to put on the FaceBook page. Can we place short videos on the webpage? Heidi will check with Larry about that.
- Calendar? Jo will try to add a calendar to the FaceBook page.
- Julie talked about the rocks we got from the estate sale in Tujunga. We got a lot of obsidian, loads of hawlite, rose quartz, and a lot of other things. The owner is giving us more opportunity to get more free rocks. Many are large and needs a large saw. We gathered almost 2000# on Sunday the 2nd of February. We spoke of the 24" rock saw at Julie's house to see about getting up and running. We don't know what condition it is in as it's been sitting for several years. We will ask for anyone who might be interested in checking it out and fix as needed.
- There was discussion about highlighting various rock shops and supply houses in Southern California and using the Pelonagram to showcase various shops. We will check with Janelle and DJ for our first article. There isn't a timeline on this, but future thoughts.
- Quartzite: Trina and Omid Aeen and Ruth Hidalgo went. No information on how it went.
- Ariel Acres trip: Ed and Julie reported on what they found. They found some interesting things and explored new areas. They found jasper, chert and agates.
- Julie February field trip: We are going to Lavic Siding. We will also invite docents from Placerita Canyon Nature Center to join us for their monthly field trip.
- Hauser Geode Beds: We are trying to see absolutely if they are open or closed. We'd like to make a trip out there before they potentially close to the public for collecting. Stay tuned.
- March field trip will be to Stoddard Wells Tailgate. which runs March 7-9. The actual club field trip will be Saturday the 8th. If you want more information, look on line for the Victor Valley Gem and Mineral Club.
- The next workshop at Bill and Heidi Webber's home will be March 22 from 10-?. We will have the club equipment out for cutting and polishing your found treasurers. Heidi provides lunch for \$5.
- Richard Carlson (an old member) contacted Tina to tell her that he wants to sell off his collection. She will find out how he wants to handle this.
- Jo said that Natural Resource Outreaches has several outreach programs that sound interesting to the club to set up at some point in the future. We spoke about a couple other potential field trips we will investigate.

Heidi motioned to adjourn/Julie seconded. Adjourned at 9:07pm. Next meeting is March 4, 2025

Respectfully Submitted Heidi Webber, Secretary, SPRC



# Jasper: Types and Varieties

Jasper is an opaque variety of silica with a diverse range of colors and patterns. Jasper is an opaque, fine-grained variety of chalcedony, which itself is a cryptocrystalline form of quartz. This means that jasper is composed of microscopic quartz crystals intermixed with various impurities, which give it its distinctive coloration.

Jasper, a diverse and versatile gemstone, comes in a wide range of types and varieties, each with its unique characteristics and patterns. These include Picture Jasper, known for its landscape-like patterns; Poppy Jasper, featuring vibrant, flower-like designs; Imperial Jasper, characterized by deep, rich colors; Leopard Jasper, with its distinctive spots; Dalmatian Jasper, featuring a spotted pattern; Ocean Jasper, with its ocean-inspired colors; Rainforest Jasper, boasting vibrant, green hues; Mookaite Jasper, known for its colorful patterns; Bruneau Jasper, featuring intricate designs; and Willow Creek Jasper, with its vibrant, colorful patterns, among others. Properties of Jasper

Composition: Silicon dioxide (SiO<sub>2</sub>) with various mineral impurities like iron oxides, clay minerals, and chalcedony. These impurities shape its color and characteristics.

Color: Incredibly diverse! Jasper can be found in vibrant reds, oranges, yellows, greens, browns, blues, and even black. Often multi-colored with intricate banding and patterns.

Luster: Ranges from dull to waxy, depending on the type and density of inclusions. Polished jasper can achieve a beautiful vitreous (glassy) shine.

Crystal System: Microcrystalline, meaning it lacks a defined crystal structure.

Streak: White, like regular quartz.

Hardness: 6.5 to 7 on the Mohs scale, making it a relatively hard and durable stone.

Cleavage: None, unlike most crystalline minerals.

Crystal Form: Typically found as massive, rounded formations or pebbles. Can occasionally form in botryoidal or stalactitic shapes.

Density: 2.5 to 2.9 g/cm<sup>3</sup>, slightly denser than regular quartz due to the mineral inclusions.

Transparency: Can range from opaque to translucent, depending on the density and type of inclusions. Some varieties, like Moss Agate, can be semi-transparent.

Fracture: Conchoidal, similar to regular quartz, meaning it breaks with smooth, curved surfaces.

Solubility: Insoluble in most common solvents, but can be dissolved in hydrofluoric acid.

Magnetism: Non-magnetic.

Fluorescence: May fluoresce weakly under long-wave ultraviolet light, depending on the type of inclusions.

Pleochroism: Weak, may show slight variations in color intensity depending on the viewing angle.

Refractive Index: 1.53 to 1.58, slightly higher than regular quartz due to the higher density.

# Jasper Types and Colors

Jasper is a fascinating gemstone known for its wide range of colors and patterns. While most people associate it with red, the reality is much more diverse. It's important to note that some popular "jaspers" aren't technically true jaspers. Here's an overview of the different types and colors of jasper:

#### **True Jaspers**

# **Red Jasper**

Red jasper is an opaque, microcrystalline variety of chalcedony, which is itself a cryptocrystalline form of quartz. Red Jasper obtains its rich red hue from the presence of iron oxides. Its formation often occurs in association with volcanic activity, where iron-rich minerals interact with the surrounding sediments. The color can range from a light pink to a deep, brick red.

Major occurrences of Red Jasper can be found in regions with a history of volcanic activity or sedimentary rock formations. Notable deposits include areas in Australia, India, Brazil, Russia, and the United States.

# Yellow Jasper

Yellow jasper is also an opaque, microcrystalline variety of chalcedony. Yellow Jasper, with its sunny and vibrant yellow coloration, is typically attributed to iron oxide, but in this case, the dominant oxide is limonite or sulfur impurities. It may display variations in shade, from pale lemon yellow to deep golden hues, often accompanied by subtle banding or mottling patterns. Yellow Jasper is found in many locations around the world, including the United States, Australia, and Brazil.

# Green Jasper

Green jasper, like the other varieties, is an opaque, microcrystalline chalcedony. Green Jasper, characterized by its verdant green tones, owes its coloration to various mineral inclusions, such as chlorite, actinolite, or hornblende. The shade of green can vary depending on the specific mineral present and its concentration. It may exhibit swirling patterns, veining, or dendritic formations, adding to its visual appeal. Green Jasper is found in many locations around the world, including the United States, Australia, and Brazil. Jasper-like Stones

# Bloodstone

Bloodstone is a variety of microcrystalline chalcedony characterized by its deep green color with red spots. The green color comes from chlorite, while the red spots are caused by inclusions of hematite. It is often used for jewelry and carvings. Bloodstone is found in many locations around the world, including India, China, and Australia.

Picture JasperPicture jasper, a captivating gemstone with intricate patterns and vibrant colors, Picture jasper is not a true jasper but a microcrystalline quartz like other members of the chalcedony family. Its captivating "picture-like" patterns and images that resemble landscapes or other scenes, make it a sought-after material for jewelry, carvings, and decorative objects. Picture Jasper is found in many locations around the world, including the United States, Mexico, and Russia.

#### **Imperial Jasper**

Imperial jasper is a rare and valuable variety of jasper known for its vibrant green and yellow colors with intricate patterns. While classified as a "jasper," it's not technically a true jasper. Instead, it's a microcrystalline quartz. It is often used for decorative purposes due to its beauty and rarity. Imperial Jasper is found in only a few locations around the world, including Russia and South Africa.

# Leopard Jasper

Leopard Jasper, stunning for its "spots," isn't a true jasper but a chalcedony formed through a process called orbicularization. It's known for its distinctive "leopard skin" pattern, Minerals like manganese and iron diffuse into a base of silica, forming concentric circles and crystallizing, creating the distinctive pattern. Leopard Jasper is found in many locations around the world, including the United States, Mexico, and South Africa.

# **Dalmatian Jasper**

Dalmatian jasper, despite its name, is not a true jasper. This unique stone is actually a type of igneous rock called perthite. Its distinctive speckled appearance, reminiscent of a Dalmatian dog's coat, is caused by a mixture of minerals within the perthite. The white spots are formed by inclusions of feldspar. The black spots are composed of the rare amphibole arfvedsonite. Dalmatian jasper is primarily found in Mexico, particularly in the Chihuahua and Durango states.

Dalmatian stone has a hardness of 6-7 on the Mohs scale, making it slightly softer than true jasper.

# Ocean Jasper

Ocean jasper is a variety of jasper with swirling patterns and colors reminiscent of the ocean. While commonly referred to as a jasper, Ocean Jasper technically falls under the umbrella of orbicular chalcedony. This means it's composed primarily of microcrystalline quartz with some additional minerals like feldspar and iron oxides.

#### Kambaba Jasper

Kambaba Jasper, also known as Kabamba Jasper, is a mesmerizing gemstone characterized by its vibrant green background and distinctive black orbs. While often referred to as a "jasper," it's not a true jasper but rather a stromatolite, a fossilized structure formed by blue-green algae in shallow seas millions of years ago. Kambaba Jasper is found almost exclusively in one location: the Bongolava region of western Madagascar. This region boasts several small mines where the stone is extracted.

#### **Mookaite Jasper**

Mookaite Jasper is a captivating gemstone known for its unique patterns and vibrant colors. It is known for its reddish-brown to yellow colors with swirling patterns. While often referred to as a "jasper," technically it's a silicified radiolarite, a rock formed from the fossilized remains of microscopic sea creatures called radiolarians. It is often used for jewelry and carvings.

#### **Brecciated Jasper**

Brecciated Jasper is a fascinating gemstone characterized by its unique "broken" appearance. It's not a true jasper but rather a breccia, a rock formed from fragments of other rocks cemented together. These fragments can be a variety of minerals, including jasper, chert, quartz, and even fossils. This can result in a variety of colors and patterns depending on the specific types of jasper involved.

# Kaleidoscope Jasper

Kaleidoscope jasper, despite its name, isn't a true jasper. It's actually a microcrystalline quartz, meaning it's composed of tiny quartz crystals visible under magnification. This unique stone is prized for its captivating colors and swirling patterns resembling a kaleidoscope. It's formed through a complex process involving petrified wood, rhyolitic ash, and various minerals.

Others prefer the term "rhyolite jasper" to emphasize the influence of volcanic ash. Kaleidoscope jasper is found primarily in one location: the Ochoco National Forest in Oregon, USA.

#### Zebra Jasper

Zebra Jasper, despite its name, is not a true jasper but rather a type of chalcedony. This fascinating stone earns its name from its distinctive zebra-like stripes, featuring alternating bands of white, cream, black, or red. The formation of Zebra Jasper involves a process called orbicularization.

#### Bumblebee Jasper

Bumblebee Jasper is a unique and captivating gemstone known for its vibrant color combinations and distinctive patterns. Despite its name, it's not a true jasper but rather a carbonate-rich rock with a primarily calcite composition. *Reference GeologyIn.com*: