



Lake George Gem & Mineral Club

December 2024

---Content---

- [About Us](#)
- [Club Officers](#)
- [To Join Our Club](#)
- [Look Forward to Dec Meeting](#)
- [Upcoming Events](#)
- [Meet Our Neighbors](#)
- [Mineral of the Month Quiz](#)
- [Interesting Reads](#)

About Us

The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geology and history of the Pikes Peak/South Park area, Indian artifacts, and the great outdoors. The Club's informational programs and field trips provide opportunities to learn about Earth Science, rocks and minerals, fossils, lapidary work, jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The Club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The Club normally meets on the second Saturday of each month at the Lake George Charter School gym, located on the south side of US Highway 24 approaching the town of Lake George from Florissant. Between Oct – Mar, our meetings start at 10 AM. From Apr-Sep, our meetings start earlier, 9 Am, to allow for more time for any subsequent field trips.

Club Officers

2024 introduces a lot of new faces to our club management team. Following are the LGGMC Officers for 2024. Please reach out if you need any help.

President	Dave Bruess	david@bruess.me
Vice President	Bart Zobel	bezobel@gmail.com
Secretary	Steve Kahler	pipprophet@gmail.com
Treasurer	Karen Vogl	bigmabe@hotmail.com
Newsletter Editor	Betty Bowles	bbowles2@gmail.com
Field Trip Coordinator	Dave Alexander	dave@davealex.com
Show Coordinator	Carol Kinate	kinatec@aol.com
Pebble Pups Coordinator	Betty Merchant	betty.merchant@yahoo.com

---Contact Us---

Postal Address:

Lake George Gem & Mineral Club
PO Box 171
Lake George, CO 80827

Website:

[LGGMC website](#)
[LGGMC on facebook](#)

Meeting Location:

Lake George Community Center
(summer venue)
39141 Hwy 24
Lake George, CO 80827

[Map to Lake George Community Center](#)

To Join Our Club – (Membership is officially closed for 2024

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain, and American Federations of Mineralogical Societies. We gather monthly as a club to share information including guest speaker presentations, workshops, and rock specimen show and tell discussions. We coordinate and supervise amazing field trips for club members that cover a broad spectrum of geological, archeological, rock, and mineral interests. We also sponsor the annual Gem and Mineral Show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems, or jewelry.

Annual Membership

Current year membership application and/or renewal and application occurs only during **January 1-March 31**. Membership is closed for the current year after this time and last years membership list will be purged April 1. Please note that all memberships must be current in order to participate on any field trip or to use any club claim.

How to Apply

One may apply for membership in person at our monthly meetings, or visit our club website at <https://lggmclub.org> to obtain a membership application, or go directly to https://lggmclub.org/LGGMc_Member24v.pdf to download the application in PDF format. The application will need to be filled out and submitted to the club along with the appropriate membership dues. The mailing address to submit the application is provided in the sidebar, ---**Contact Us**--- under **Postal Address**.*Error! Reference source not found.* Remember to get your application in before April 1, 2025!

Annual Membership Fee

Annual membership dues are collected (Jan. 1 through Mar. 31). They are as follows:

LGGM Annual Membership Dues 2024		
\$15.00	Individual	Age 18 and over
\$25.00	Family	Parents + kids under age 18

Look Forward to Dec Meeting (10 AM Dec 14, 2024 @ [Lake George Community Center](#))

Next, December Meeting

Our November meeting was cancelled due to bad weather. We will be wrapping up 2024 in the December meeting with our Annual Towel Show. Please bring some of your favorite minerals, fossils, and jewelry from the year to show off limited only by what can fit on a bath-sized towel. We will also be sharing stories from individual members about their favorite field trips and specimens found. If you have some time, please think about what special story you would like to share at the meeting. This will provide everyone with a sense of what the membership appreciates most in our field trips and help the club plan more trips accordingly. It also will let those members who could not make the trip, hear about it, and enjoy your moments. So, gather your stories and your specimens, and let us share! Afterwards, a holiday silent auction will occur.

Help the club by donating some of your extra specimens and/or by purchasing specimens which make great holiday gifts for yourself and others.

For the business part of the meeting, we will elect officers for 2025. Nominations from the floor are invited, but nominees must be present.

If people would like to bring some holiday treats, I am sure that they would be happily consumed.

Please remember that **LGGM Club enrollment/renewal runs Jan 1st through Mar 31st, 2025**. Mark it on your calendar so that you don't forget.

Upcoming Events

Scholarship Opportunity 2025 (Apply Jan-Mar 2025)

This opportunity for a \$1000.00 scholarship is offered by the Hell Creek Paleontological Society. It is designed to support

individuals pursuing their education in paleontology, geology, or relate fields. For more information visit [Scholarship page](#).

WIPS Annual Auction Fundraiser (Dec 7, 2024 2:30-5:30 pm)

Held at Clements Center, 1580 Yarrow Street, Lakewood, CO
This event by Western Interior Paleontological Society is their annual fundraising event for grants and scholarships. For more information visit [Auction page](#)

Colorado Scientific Society Holiday Potluck, Annual Meeting (Tues., Dec. 3, 5:30 p.m.)

President's Address, "Quaternary Records of Spring Ecosystems", by Jeff Pigati and Kathleen Springer, U.S. Geological Survey. In-person Potluck Dinner at New Terrain Brewing

Company for 50 people or join us on Zoom. See our website <https://coloscisoc.org>

Denver Museum of Nature & Science, Earth Science Colloquium series (Thurs., Dec. 5, 2 p.m.) The wandering Falklands:

A plate tectonic odyssey. (Eric Roberts, Mines)
All are welcome. Talks are in-person-only, from 2-3 pm in Ricketson Auditorium. Ricketson Auditorium is on the 1st floor near the West Atrium. Museum admission not required to attend, and reservations are not needed. Enter through Staff/Volunteer entrance, 50' east of main visitor entrance, and let Security know you're attending the talk, they will direct you to the location. For more information visit [DMS webpage](#) for the full year's program.

Note, the talk, Did the Deccan Traps volcanic province cause the end-Cretaceous mass extinction? (Blair Schoene, Princeton), earlier planned for Nov. 14, was cancelled and will be rescheduled in 2025.

Friends of the Mines Museum Holiday Party, (Thurs., Dec. 12, 7-10 p.m.)

This is an open house at the Colorado School of Mines Museum. "Potluck dinner, door prizes, mineral auction, games for kids, meet the Museum staff, and more." If you are not now a member of the Friends of the Mines Museum, please consider joining online, or, come to the party and join there, to help

support the Mines Museum. Bring a friend! See [Friends of Mines Museums](#) for membership info; individual annual membership is \$30, student \$10, family \$50.

Please note, the Colorado School of Mines Geology Museum (officially now, the Mines Museum of Earth Science) was closed Nov. 20-25 due to roof repairs, and the Dec. 6 First Friday Night event will not be held because of this. "Please check their website & social media for closure updates." See [Mines Museum webpage](#) or [Mines Museum facebook](#) (and check out their weekly Mines Monday Mystery Mineral quiz!).

Flatirons Gem and Mineral Show, "Rocks and Rails" (Dec 13-15, 2024) at the Boulder County Fairgrounds, Longmont; sponsored by the Flatirons Gem & Mineral Club [Boulder]. 10 a.m.-5p.m. daily.

Fire Prevention at Home (Jan 25, 2025)

Florissant Public Library 334 Circle Dr, Florissant, CO 80816
The free informational sessions give insight into reasons why some homes survived and others burned in recent fires like the Marshall fire. The session also presents many ideas to make homes safer in case of wildfires.

Just an extra note, an excellent special lecture presentation about mineral and energy resources, world economic development, and the demand for minerals (particularly, copper) that would be required to transition to a dominantly electric-power energy economy was given on Nov. 15 at Colorado School of Mines, cosponsored by the Society of Economic Geologists (SEG) and the Denver Region Exploration Geologists Society (DREGS). It was presented by Dr. Adam Simon, Univ. of Michigan, SEG Distinguished Lecturer. The timing of my "earth science events" newsletter did not enable me to announce this in advance to the earth science community, but you may read a summary of the heart of what was in his presentation in this newsletter from the University of Michigan: [Michigan News](#). One can find more links online to the detailed studies behind his presentation.

Meet Our Neighbors

Here is a list of nearby gem, mineral, fossil, and geology club meetings that you may enjoy. Go to each club's website for more information.

Cañon City Geology Club

Meets on the 2nd Monday of the month at 6PM at United Methodist Church, Cañon City.

Pueblo Rockhounds

Meets on the 3rd Thursday of each month at 6:30PM at

Westminster Presb. Church, 10 University Circle, Pueblo

Columbine Gem & Mineral Society

Meets on the 2nd Thursday of each month, 6:30PM at meeting room, Mt. Shavano Manor, 525 W. 16th, Salida

Colorado Springs Mineralogical Society

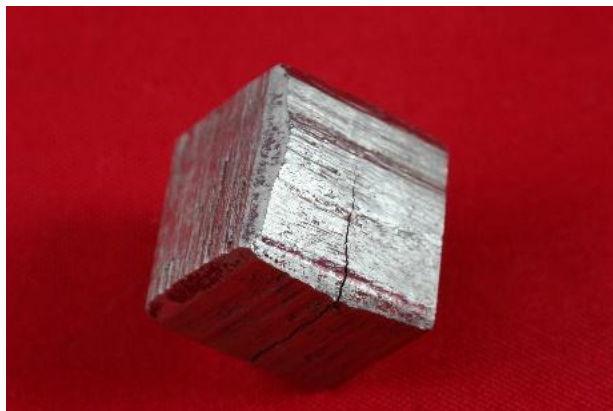
Meets on the 3rd Thursday of each month at 7PM Colorado Springs Christian School, 4855 Mallow Rd, Colorado Springs.

Monthly Mineral for December, 2024 (Carnein photos and collection)



This month's mineral occurs mainly in low temperature hydrothermal deposits, hot springs, and volcanic fumaroles. It was once used as a lemon- to canary-yellow pigment, but don't put the brush in your mouth if you use it in paint! It's extremely soft (1.5-2—softer than your fingernail), has a moderate SG (about 3.5) and pearly luster (as in the specimen in the left-hand photo), and is sectile (you can carve it with a knife). Monoclinic crystals are fairly rare, but superb specimens come from Nevada and Russia (the photo to the right). Mindat.org (accessed November, 2024) lists only one Colorado occurrence. What is this comparatively uncommon mineral?

Last Month's Mineral: Pyrite, FeS₂



If you've heard this called "fools gold", don't be fooled—since the Cripple Creek gold deposit underwent its renaissance in the 1990s, most of the production came from pyrite, which has minute gold particles embedded in it. Pyrite is the commonest sulfide mineral, occurring in all three major rock types and in a wide array of geologic environments. It even occurs in meteorites, including Martian meteorites, but it's rare or absent on the Moon. In Earth rocks, it can be confused with marcasite and chalcopyrite, but its crystal habit is different from either of these, and chalcopyrite has a hardness of only 3.5-4, while pyrite will scratch glass or steel. Typically, pyrite occurs as cubes, octahedrons, and pyritohedrons and combinations of these three. On Earth, pyrite is chemically unstable, and, as it breaks down, it releases sulfuric acid, which attacks many other minerals. The release of metal and other ions during this process is largely responsible for the wide variety of minerals on Earth, compared with the Moon and other planets. So, to the mineralogist, pyrite is one of the most important of all minerals.

Interesting Reads

In this section, we provide unique submissions from our club members and fun rock, mineral, and geology news and information to enjoy from several of our favorite magazines.

Fossil Finds – Placoderms

Placoderms are some of the best-known fish of the ancient seas because of their hard dermal plates. “Placo” means plate and “derm” means skin.



[Read More](#)

Microfossils - Citizen Scientists Uncover Links to the Past

Microfossils were nestled in Nigel McGrath's pasture in rural New South Wales and this discovery is helping scientists decipher mysteries preserved in the rocks.



[Read More](#)

Digging for Triceratops Dinosaur Fossils

Follow triceratops dinosaur fossil digging and fossil removal efforts in a Baker, Montana, area aptly nicknamed the Valley of the Triceratops.



[Read More](#)

VIDEO OF THE DAY

Hidden Treasures Inside These Agatized Coral Geodes!

Agate Dad cuts open a collection of beautiful agatized coral geodes from Florida. Agatized coral is special because it's both a mineral and a fossil, capturing the intricate coral formations in stunning agate. Each cut reveals unique colors, patterns, and hidden geode pockets, making every reveal a captivating surprise, even under UV light!



[Watch The Video!](#)

WHAT'S THIS ROCK?

Do You Know What This Is?



Identification Clues:

Color: This mineral is known for its vibrant purple to reddish-violet color, which can vary in intensity depending on the amount of manganese and iron present.

Streak: It leaves a distinctive purple or lavender streak when rubbed on a streak plate, which is one of its defining features.

Luster: It has a submetallic to earthy luster, giving it a slightly dull appearance despite its bold color.

Hardness: This mineral ranks around 4 to 4.5 on the Mohs scale, making it relatively soft and prone to scratching, so it requires careful handling.



Additional Interesting Facts:

Name Origin: Its name is derived from the Latin word for purple, due to its unmistakable violet hue, making it one of the most colorful manganese minerals.

Metaphysical Beliefs: In metaphysical circles, this stone is believed to enhance mental clarity and help improve communication, making it a popular choice for spiritual practices focused on insight and self-expression.

Rarely Used in Jewelry: Due to its softness, it is not commonly used in jewelry, but it remains prized by collectors for its unique color and rarity.



[Do you know what it is? You can find out here.](#)

TEST YOUR KNOWLEDGE

How Much Do You Know About...World of Giant Amethyst Geodes and the Mines of Artigas?



1. Why are geodes from Artigas highly valued despite the abundance of amethyst?

- A) Their color and size are exceptional due to unique geological conditions.
- B) Amethyst is rare in Artigas.
- C) They are located in an inaccessible area.
- D) They contain rubies and sapphires.

ANSWER

2. What is the primary method used to remove amethyst geodes from basalt rock in Artigas?

- A) Chemical dissolution
- B) Controlled explosions
- C) Drilling and chipping

D) Manual extraction without tools

[ANSWER](#)

3. True or False: The depth of purple in amethyst is influenced by the amount of iron impurities and duration of radiation exposure.

[ANSWER](#)

4. True or False: A 26-ton amethyst geode from Artigas took eight months to process and transport to its current location.

[ANSWER](#)

5. What was the estimated value of the global crystal market in 2020?

- A) \$500 million
- B) \$1 billion
- C) \$2 billion
- D) \$10 billion

[ANSWER](#)

GEOLOGY

Mystery in the Desert: What Created Utah's Strange Geologic Circles?



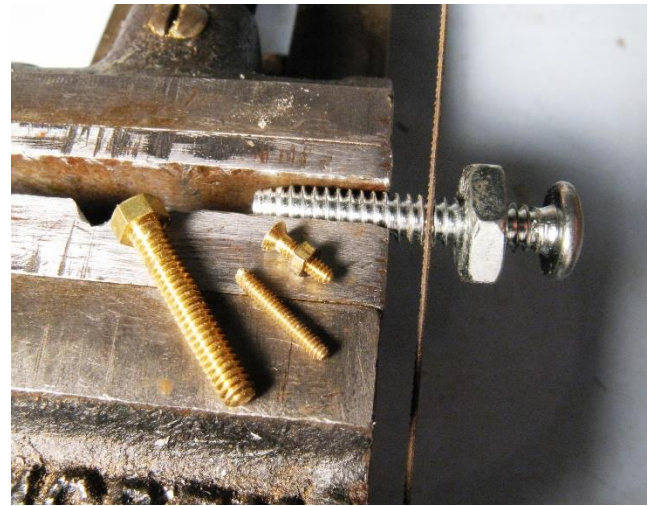
Imagine hiking through the Utah desert and stumbling upon a set of mysterious, circular structures embedded in the landscape. How were they formed? Were they created by an ancient culture? Or is there a geological explanation for them?



[Learn how these structures were created](#)

Bench Tips for December

CUTTING A BOLT



Whenever you have to cut a threaded bolt shorter, it's often difficult to get the nut to thread back onto it. And the smaller the bolt, the more difficult it is to restore any distorted threads. The problem is easily solved with the use of a nut. Here's how I do it.

First, screw a nut onto the bolt before cutting it. Grip the bolt by the threaded section that is to be sawed off. Then saw the bolt to the desired length, taper the end with sandpaper or file, and unscrew the nut from the bolt.

Unscrewing the nut over the freshly cut end of the bolt will straighten out any damage that sawing and filing did to the threads. Gripping the bolt by the piece to be sawed off localizes any crushing damage to the piece that will be thrown away.

DEPTH GAUGE FOR DRILLING

Sometimes you need to drill a number of holes all to the same depth. One quick and easy way to do this is to wind some tape around the drill bit so that the tape just touches the part surface when the hole is deep enough.

You can set the depth either by measuring from the tip of the drill to the tape or by drilling to the correct depth, leaving the bit in the hole, and wrapping tape around the bit at the surface level.

Note that a little extra tape left free on the end will blow away debris from the drilling.