

Lake George Gem & Mineral Club

Club News, January, 2023



Dues are Due...Please go to our website (www.lggmclub.org) to pay online, or return the membership application at the end of this newsletter. Dues are still \$15 for an individual or \$25 for a family and must be paid no later than March 31.

The January meeting will be held at the Lake George Charter School at 10AM on January 14.



The meeting topic will be “Drilling, ‘fracking’, earthquakes and our energy bills” by John Rakowski. Here’s a summary:

High pressure hydraulic fracturing is shortened to the term “fracking” in public media. The word “fracking” sounds ominous and somewhat mysterious to many people. John will give a general explanation of what the fracking process entails and why it is performed. John will discuss the advantages of horizontal drilling and the evolution of “fracking” from post-Civil War times to the present. He will discuss the advantages of fracking as well as the downsides of the process. We’ll learn about the increased earthquake activity in the Mid-Continent region and why there has been an increase in that activity. We’ll also discuss how horizontal drilling and fracking impact our energy bills.

In addition to being an active rock hound for over 60 years John earned a geology degree and had a career in the petroleum industry exploring for and developing oil and gas assets. He worked for large and small oil companies as well as having his own consulting company before retiring to the Florissant area.

✎ Our December “Towel Show” was a success, with about 25 members enjoying snacks supplied by the Club and checking out recent finds made by other Club members. Dave Breuss fit the most rocks on a towel! Among the attendees and exhibitors, we were pleased to welcome 3 Pebble Pups and 2 parents. Here are a few photos taken by **Frank Rosenberg** and **Bob Carnein**.





↘ Our December meeting is traditionally the time to elect new Club officers. There were no volunteers or nominations, so Club officers for 2023 will remain the same as those for 2022 (see the list at the end of this newsletter). Thanks to our officers for their willingness to stay on for another year! But we would really appreciate some other active members to take on a leadership position.

- **ADDITIONAL COMING EVENTS OUTSIDE THE LGGM CLUB:** (Nearby gem, mineral, fossil, and geology events that you may enjoy.)
- **Cañon City Geology Club** meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City

- **Columbine Gem & Mineral Society**, meets on the 2nd Thursday of each month, 6:30PM in the meeting room, Mt. Shavano Manor, 525 W. 16th (at J St.), Salida
- **Colorado Springs Mineralogical Society**, meets on the 3rd Thursday of each month at 7PM in the Mt. Carmel Veteran's Service Center, 530 Communication Circle, Colorado Springs;
- **Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

Thanks to **Pete Modreski** for sending the following event announcements: No announcements received this month.



Our Treasurer, **Cathy McLaughlin**, sent the following information about memberships:

2023 LGGMC Membership

The window for new and renewing members is open from January 1st to March 31st, 2023. We encourage you to use the LGGMCfieldtrips.com website for your registration. You will have the opportunity to update your personal information and interests. We want to hear from you about what you want to see in meetings, events, and other activities, as well as volunteer opportunities you are interested in. The club will use this information to improve participation in club activities.

As part of the update to your personal information, you will be required to enter your date of birth. This was a change made last year by other clubs using the same website application. However, **WE DO NOT WANT your actual date of birth**, just the year. We recommend using 07-01-Year. This will provide the club with information we need on age ranges for dues, insurance, and club membership without requiring additional personal information subject to the privacy act.

You may also submit your application and dues through the mail. If you have any questions about memberships, please let us know.



Dave Alexander, our field-trip program leader, sent this summary of volunteer needs and planning for next summer's trip season. **Please read and consider volunteering** your time for one of the positions listed below.

- From Dave: Aligned with the general club goal of member participation, **field trips will also require more member involvement for 2023**. Although I still intend to coordinate/lead several individual field trip events this year, I want to offer the opportunity for other members to participate in 2023--to share the enjoyment and fun of coordinating, leading, and publishing events! Over the last four seasons I have implemented and optimized our event-management application and field-trip processes to remove most of the clerical burden, leaving the fun stuff for our volunteers!

My vision for the 2023 field trip season is that it should be:

Rich. Continue to have a deep field-trip program for club members prospecting for minerals, fossils and lapidary material. Participate and network with other clubs and their members to meet new enthusiasts and visit new places.

Inclusive. Encourage and mentor anyone who is interested in coordinating and/or leading a trip (or many trips), making it easy and fun without any anxiety or barriers to participating.

Sustainable. Through involvement of many club members, make the field-trip program resilient to volunteer attrition. I've seen other clubs lose their field-trip coordinator without a replacement, and the field-trip program effectively dies until another volunteer agrees to take on the large responsibility, which sometimes can take years. With many members willing and trained to participate, our club can

adjust when any single member leaves their role; and more important, any single volunteer does not have to take on the burden of coordination of the entire program.

Engaging. Encourage and/or participate with members to publish details of field trips we've gone to on our newsletter and/or Facebook group so that other members can enjoy seeing who went and what they found.

This season, I will be focused on helping others coordinate and publish our field trips, which will effectively take the same amount of my volunteer time as previous years. I'm confident this will be beneficial for the future of our club's field-trip programs. I still plan to coordinate and lead field trips because it is tons of fun; the difference from prior years is I'll be sharing that fun with you all!

Please strongly consider participating in any of the following volunteer opportunities on our Field-Trip Team. We currently need help in all positions! **Contact Dave Alexander 303.641.5567** with questions or with trips you'd like to go on! We will be publishing our 2023 program on our websites as soon as we get volunteers to coordinate the events and add them to our calendar!

- **Field-Trip Program Leaders.**

This position manages the entire program, providing vision and mentoring to other volunteers on our Field-Trip Team. This role does not require that you attend the field trips.

More specifically this role is responsible for coordinating the calendar of trips and providing training and guidance for other field-trip volunteers. The Program Leader will coordinate with individual trip coordinators, ensuring the trips are good to go in a timely fashion and that the information on the event application is accurate. Program Leaders will be available to help answer member's questions and work with the Event Website Administrator to resolve registration issues. He or she will work with club leadership to network with other clubs and communicate periodic updates to club leadership and members at large. This person is responsible for training and mentoring all field trip roles.

- **Field-Trip Coordinators.**

Every trip requires a coordinator to ensure access to the site, publish the event to our membership, and ensure member questions are answered. The coordinator also ensures that we have a leader for the event (we have a growing pool of members who are experienced leaders), coordinates any follow-up with the trip leader, saves and/or distributes the event's sign-up sheet, and coordinates the sharing of event highlights with the newsletter and Facebook group. You can coordinate any number of events. This does not require that you attend the field trip, but often our field-trip coordinator chooses to lead their field trip.

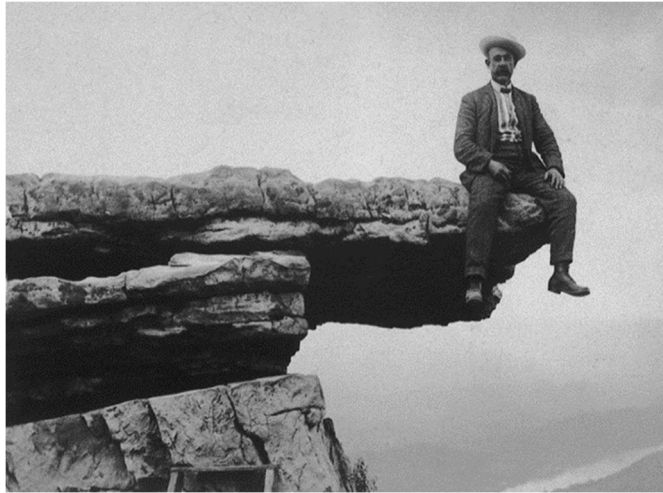
- **Field-Trip Leaders.**

Every trip requires one (or sometimes more) leaders to manage the day-of logistics. Past leaders have stated that this responsibility is just a little more effort than just attending the field trip as a participant--being at the meeting point a little early, answering member questions leading up to the trip, ensuring the sign-up sheet is passed around, and any site-specific liability waiver is signed and collected. The field-trip leader is also responsible for planning the caravan to the prospecting location and collecting pictures and working with the coordinator to publishing highlights after the event. This is the only volunteer position that requires you attend the field trip.

- **Event Website Administrators.**

We are using an amazing event registration/management application built specifically for us (and used by a growing number of clubs). If you like tinkering with website applications or like publishing content to websites, this position is for you! You will learn and assist others, as necessary, with the administrative part of event registration and content management (which includes images, videos and other rich content to showcase each amazing adventure)!

- Here are the “Bench Tips” from Brad Smith for January: Brad’s monthly contributions are now in a format that’s incompatible with our newsletter, so I’m “signing off” from them. Sorry about that, but you may be able to separately subscribe by emailing www.bradsmithjewelry.com.



Notes from the Editor

Bob Carnein

Newsletter Editor

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Many thanks to **Steve Veatch** for the following memoir of his days growing up in Colorado Springs.

A Path to Discovery

By Steven Wade Veatch

I once lived below Rattlesnake Bluff in Colorado Springs, a place that forever changed my life. Today, the University of Colorado at Colorado Springs sprawls out over this landscape. Nothing looks the same. Human nature has traded places with mother nature, replacing the peaceful silence of an open field with the noise of busy development. When I was in elementary school, this place seemed like it was on the edge of a frontier, and the path to the top of the bluff led to discovery.

Back then, when I was 10, I ran all over the place. I bicycled my way to the adventure of open fields, construction sites, and ponds full of frogs. I bounced back and forth between exploring, building forts, catching horned toads, chasing turtles, and flying kites. Wanderings like these allowed me to follow the infinite possibilities of boyhood. Now that I was 10, I was old enough to climb to the top of Rattlesnake Bluff. This sandstone outcrop produced a perfect place to collect rocks and minerals. I

had learned something about these from my teacher in third grade.



Rattlesnake Bluff, Colorado Springs.
Photo date 2013
by S. W. Veatch.

The day I first climbed Rattlesnake Bluff lives in bits and pieces of my memory. It began as a sun-drenched, windless day. I started bushwhacking up the slopes, slowly walking through gulches, gullies, and arroyos that carved the face of the bluff. Moving among outcrops of ancient sandstone, I hiked along a path through several broken boulders where crows, picking at a dead rabbit on the ground, scolded me. Time, weathering, and gravity left blood-red jaspers, cream-colored chert, milky quartz, and purple sandstone spread out on the ground near my path. I

bent down and scooped up some of those specimens and studied them carefully. Next, I found a smooth sandstone slab with a pattern of small bowl-shaped depressions

ground into its surface. Years later, I learned Indians used this artifact, like an artist's palette, to mix ceremonial paints.

As I continued up the path to the top of the bluff, the wind picked up. I heard faint rustlings in the bushes and tall grass—a blue-belly lizard crawled onto a rock, cocked his head to glance at me, and then blinked in the bright sun. Then a coyote darted into the open field below and melted into the brush.

Imposing sandstone outcrops bordered the footpath and ranged in color from tan to brown, with large, almost white sections. From the relentless pull of gravity, a dozen boulders had cleaved off the upper brown sections of the bluffs and rolled down the slope. Over decades, a bright green swath of lichen had spread over those boulders. I didn't have a sense of deep time as a boy, but now I see the bluff, rich with geologic history.

Nature worked overtime on areas along the trail to the top. I stopped occasionally to take in the lay of the land. A tide of sunflowers turned their yellow faces toward the sun in a late summer communion with their environment of air, sand, soil, and rain. Birds picked at their seeds. I looked around and inhaled the fresh air. Ponderosa pines clung in clefts in the sandstone on the face of the bluff. A group of jumbled boulders in a ravine concealed an animal den. Purple asters dotted the late summer grass; busy ants maintained their hills while grasshoppers broke the silence with their clattering wings. Meanwhile, I continued hiking, crunching twigs and gravel underfoot. As I made my slow climb up, I startled a silent snake, sunning on a pitted rock.

After looking to avoid the sharp spines of barrel cacti, I sat down under a ponderosa pine and ate lunch. Jelly dribbled on my jeans from my peanut-butter sandwich. After eating lunch, I looked at the rocks I had picked up earlier and wondered about their origin. Although I was at the edge of my knowledge, I sensed geologic forces at work. The bluff's prehistoric past played out over a frenzy of cataclysmic events: surging seas, volcanoes, floods, earthquakes, mudslides, and endless change. This place also changed me, connecting me deeply to nature, to rocks, to minerals.

Later, I learned that geologists call the two sandstone units of the bluff the Dawson and Laramie formations, and they date back to the Cretaceous Period—the last part of the Age of Dinosaurs. The Dawson and Laramie formations formed from rushing streams flowing off the Ancestral Rockies. These active streams stripped off sediments from those ancient mountains, then deposited those sediments in radiating fans. The Western Interior Seaway was nearby, with bordering stream channels, coal swamps, and lagoons.

The day grew longer as I picked up interesting specimens and put them in my ragged cloth sack. These rocks all have meaning; they record the events of the primordial past: continental plates drifting and colliding, oceans rising and falling, inland seas advancing and receding, mountains growing skyward and then eroding away, and sediment being converted into layers of rock. Conglomerate whispers stories of swift streams mixing sand and gravel. Fragments of volcanic rocks reveal a past unsettled by violent eruptions of ash and lava. I selected rocks that day for their heft, their color, their unusual shapes—not knowing they held the secret of a good geological story, a story I learned to decipher many years later as an adult.

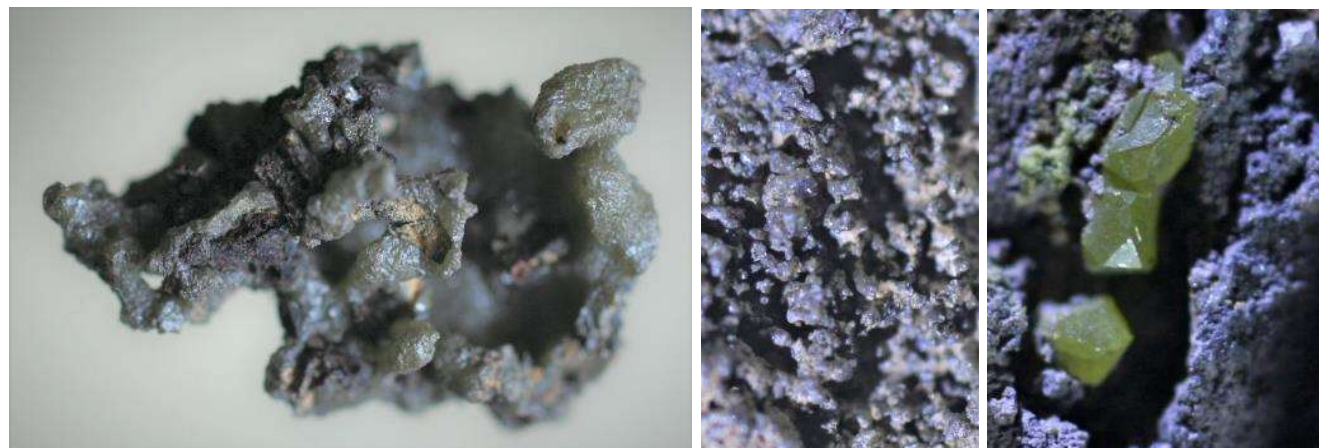
When I reached the bluff's top, I sensed an affinity for this place. I held pieces of it in my hand. I felt the bluff pulling me into the natural world, where I made a deep connection. What did it all mean? My hike to the top that day marked the start of my life-long study of the Earth and its past. It put me on the pathway toward becoming an Earth scientist and teacher.

From my perch on the bluff, I saw dark rolling clouds bring a weight to the afternoon. I turned and walked back down the slope—carrying pieces of the day in my cloth bag—and headed toward home.

That night, I climbed a neighbor's willow tree and sat on a branch. I looked up toward the moon and stars. From my perch I saw a meteor burn itself out in the cold nothingness of the night sky. I thought about my hike earlier—it was a good day for discovery.

Monthly Mineral Quiz

The Monthly Mineral for January (Carnein photos and collection)



This is number 52 of the monthly minerals in the LGGMC Newsletter. For this month's mineral, the 25th installment would have been more appropriate (that's a hint). (Another hint: you'll find a related mineral in the November newsletter.) This rather peculiar and obscure mineral was an important metal ore at Leadville and Silver Cliff, Colorado, but specimens are hard to come by, especially from Silver Cliff. Well formed isometric crystals are especially rare (the tiny ones on the right, above, came from Leadville); more typical are coralline aggregates and very crude "blobby" crystals and masses. The mineral is very soft ($H=1.5$ to 2.5), has a high SG (about 5.6), and is sectile (you can cut it with a knife). It occurs in the oxidized zones of some mixed-metal-sulfide deposits. The composition is somewhat variable, and several names have been applied; most of those names relate to its composition. Although it's relatively obscure, Mindat.org (accessed December, 2022) lists nearly 100 Colorado localities. Are those enough hints for you? What is this mineral oddity?



Last Month's Mineral: Marcasite, FeS_2 . Dimorphous with pyrite, marcasite has similar properties but is orthorhombic, whereas pyrite is in the isometric crystal system. Although some specimens are stable (including the one to the left), humidity or water may cause marcasite to break down chemically, forming sulfuric acid. Both are sometimes called "fool's gold", but distinguishing them from gold is easy—they are brittle, while real gold is malleable. Marcasite and pyrite also yield a distinct sulfur smell when pulverized. Ironically, pyrite sometimes contains economically valuable quantities of gold. This is rare for marcasite. If you want to identify marcasite, the crystal habit is the most useful property.

Eckel, E.B., 1997, *Minerals of Colorado, Updated and Revised by R.R. Cobban, et al.*: Golden, Colorado, Fulcrum Publishing.



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, lapidary work and 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 Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter, we meet at 10:00AM. From April through October, we meet at 9:00AM, to allow more time for our field trips.**

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 also sponsor an annual Gem and Mineral Show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems, or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (parents plus dependents under age 18). New memberships and renewals are only accepted Jan 1 through March 31 each year.

Our Officers for 2022 are:

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Lake George Gem & Mineral Club
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www.LGGMClub.org

Membership Application/Renewal, 2023

Name(s) _____ Date: _____

Address _____ City _____ State _____ Zip _____

Telephone(____) _____ - _____; e-mail: _____
(Please print; e-mail address needed to receive newsletter)

Names/ages of spouse/minor members (if family membership) _____

Dues for Jan. 1 through Dec. 31 are ____\$15 (individual, 18 and over); ____\$25 (family)

Current year membership renewal and application occurs Jan. 1-March 31, after which membership is closed for current year. **Membership list will be purged April 1 for current year.**

MEMBERSHIP MUST BE CURRENT TO PARTICIPATE ON ANY FIELD TRIP OR USE CLUB CLAIM.

I agree to abide by Club constitution, by-laws, and rules regarding field trips and Club-claim visits:

Signed _____ Date: ____/____/____

Is this a renewal? ____ (yes); ____ (no)

My interest areas include (check all that apply): ____ minerals; ____ fossils; ____ lapidary
____ micromounts; ____ Colorado geology; ____ Pebble Pups (ages 7-17); ____ mining history;
____ field collecting; ____ crystallography; ____ other (please specify):

I am willing to help with the following: ____ Give a talk at a Club meeting; ____ Give a presentation for
Pebble Pups; ____ Run for a Club office; ____ Newsletter editor/writer; ____ Local Show/Show Committee;
____ Field-trip Planning; ____ Art (member badges); ____ Membership Coordinator; ____ Pebble Pups;
____ Other (be specific) _____

Questions about Club or Activities? Visit our website or contact a Club officer.