

The Lake George Gem and Mineral Club -

Club News, August, 2010 Newsletter



Stones are silent teachers,
They induce silence in the observer,
And the best that can be learned
Is not communicable.

-Goethe-

(Thanks to the Hofmeisters)

Regular Meeting of the Lake George Gem & Mineral Club

Saturday, August 14, 9:00AM

Lake George Community Center

Our Annual Gem and Mineral Show is almost upon us. Please attend our short business meeting at the Lake George Community Center at 9 AM on Saturday, August 14, and after that we'll stake out the field. If we have the normal number of volunteers, it is usually finished in about an hour and a half. Then we'll go across the street for pizza and discussion. If the weather is decent, I have an idea for a quick nearby field trip for pegmatite digs.

We'll also have a signup sheet at the meeting for persons to be at the LGGM Club booth to give mineral specimens to kids plus answer questions from dealers and the public. On Thursday, August 19, it will just be a matter of checking in dealers and helping them to find their space. Friday through Sunday will be the actual show days with the public.

Because of the competing show in Woodland Park the same weekend we have lost dealers and may only have around 15-20 dealers at this show. **Let's show them and show the public that THIS is the show to attend, and I hope we'll have more dealers back next year! --John Rakowski**

Coming Events

- | | |
|--|----------------|
| <u>Annual Contin-Tail Mineral Show and Swap</u> , Rodeo Grounds, Buena Vista | ... Aug. 12-15 |
| <u>U.S. Geological Survey Free GPS, Map, & Compass Class</u> , 9AM-5PM, Bldg 810, Denver Federal Center, Lakewood. <u>Reservations</u> at 303-202-4689 or gpsworkshops@usgs.gov | ... August 13 |
| <u>Monthly Meeting, Columbine Gem & Mineral Society</u> Regular monthly meeting: Walking field trip south of Salida, 6:30 PM, Stockyard bridge, south of Salida | ... August 14 |
| <u>Lake George Gem & Mineral Club Gem & Mineral Show, Lake George</u> . 9AM-5PM daily. See our website for information. FREE ADMISSION, FREE PARKING! Show Set-up Aug. 14 (see meeting notice above). | ... Aug. 20-22 |
| <u>CSMS Annual Picnic</u> , Colorado Springs Mineralogical Society | ... August 21 |

- Creede, CO Mineral Symposium**, hosted by Colorado Chapter, Friends of Mineralogy. Talks and field trips; contact dlconti@aol.com for info. ... **Sept. 10-12**
- Colorado Mineral & Fossil Show**, Holiday Inn-Denver Central, 4849 Bannock St. (free admission and parking) ... **Sept. 15-19**
- Denver Gem & Mineral Show**, Denver Merchandise Mart, 58th Ave. at I-25 (exit 215). Theme is Minerals of the Creede Mining District, Mineral Co., CO. Admission charge; go to www.denvermineralshow.com for info. ... **Sept. 17-19**

Club News

Please Welcome New Members:

Donna DeLong
Barb Deutsch
Ken Sexton

○○Upcoming field trips:

- August 7:** New Hope **Amethyst** Locality (Canon City Club claim) (see "Coming Events", above). Meet 200 yds North of the intersection of Hwy 50 & Hwy 9 at wide spot at 9 AM!
- August 15:** (Sunday) LGGMC *Patience* Claim ~ **Bring a Guest once!** Meet trip leader Dan Alfrey at the intersection of Hwy.24 & Hwy.67 in Woodland Park at 8AM (Langstaff-Brown pkg.)
- Sept. 11:** (**Revised Date!**) "Sedalia Mine" Salida: **fist-sized garnets**, along with numerous other minerals. Strenuous climb to main collecting area; joint trip with Columbine Club. Meet at Salida Safeway parking lot, 9AM. Contact ccarnein@gmail.com for more info.
- Sept. 18:** Holcim Cement Quarry, Penrose (**calcite, pyrite, quartz**) see Dan Alfrey to Sign-up
- Sept. 25:** GodSend (private claim) (**amazonite, smoky quartz**)
- Visit the LGGMClub.org website for details on these and updates on other trips.

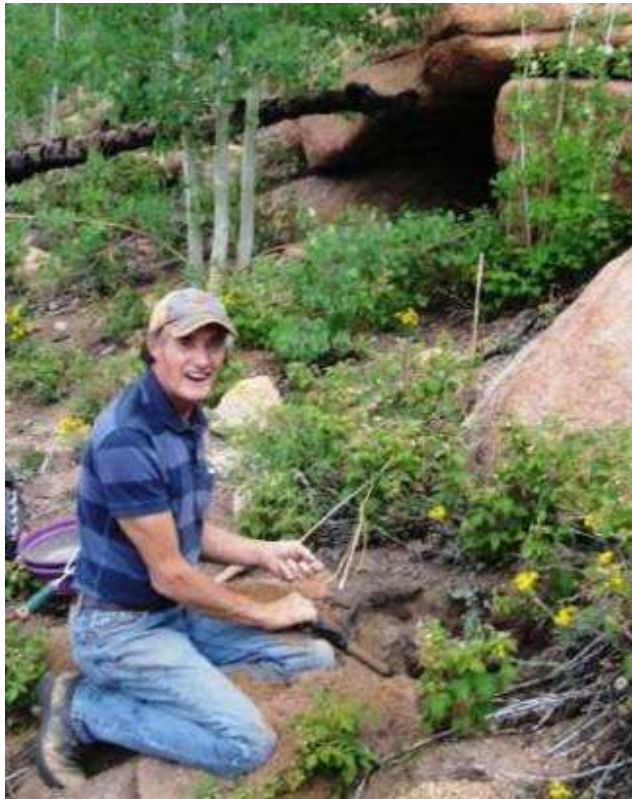
○○At the July 10 meeting, **Dan Alfrey** showed off some amazonite and fluorite that he collected at the Club's new WigWam claim (see below). It was reported that the Alma Project group will do a presentation at an Alma Heritage Association meeting in September. The project group visited Buckskin Gulch after the July 10 business meeting. The Colorado Springs "Gazette" recently included an article about the project. President **John Rakowski** recommended, and the members present agreed, to forward a check received from the defunct Colorado Federation of Mineralogical Societies to the "new" Federation, with several conditions. After the business meeting, 22 members made the challenging ascent to 9600 feet to collect at **Rich Fretterd's** Petra Placer. Member *Jerrolynn* found a couple of small topaz crystals, and *Dan* reported finding 2 nice cutters and 3 other small (but pretty) blue ones.

○○Several members of the Club received national awards from the American Federation of Mineralogical Societies at its recent meeting:

Adult Advanced article:

Second Place - Lake George, **Mike Nelson**, The Paleontological Resources Preservation Act: What Does It Mean for LGGMC Members

Fourth Place- Lake George, **Bob Carnein**, Twinning in Crystals



Rich Fretterd opens a new pocket at the Petra Placer (*Dan Alfrey Photo*)

○○ President **John Rakowski** sent in the following item:

Mineral collecting and trespassing dangers

As an officer in our local Homeowners Association that covers properties north of Florissant and Lake George, I have heard of instances of mineral collectors trespassing on private property without permission to dig for specimens. In some other cases, collectors are digging holes in local subdivision roads and leaving them open as hazards when they leave. Please be advised that these actions are clearly against the law. Some landowners have been known to get quite upset, and unpleasant altercations sometimes are a result.

Similar warnings apply to mining claims where some claim owners have had

valuable specimens stolen or destroyed by trespassers. Armed guards have been posted on some claims and prosecution of mineral trespassers will be pursued. Some trespassers themselves are poaching specimens when armed and there could be some very unfortunate incidents if tempers flare or accidents occur.

As gem- and mineral-club members, we should be at the forefront of recognizing property rights and do our best to make sure that our friends and neighbors, who may not be club members, also know about proper recognition of private property rights and responsibilities. If you have a claim or private property that is being poached, please be very cautious with firearms to prevent any unfortunate accidents.

- On behalf of the LGGMC, I thank you for your cooperation and for helping to make sure others respect property rights.

John Rakowski, President LGGMC

○○ President John Rakowski also sent the following:

Dan Alfrey, Bob (new member of DGMG), and I placed 8-foot treated 4x4's, tops painted white with marked info such as NW Cor. Piety Lode Claim, at each corner and at the midpoint of each long axis line. We did not put a post at the NE Piety/NW Patience claim common corner, as it is partly in a driveway. We did drive an 18-inch rebar there one inch below the surface, and it is 10 feet due east of the USFS "P" parking sign on the south side of USFS 545, where people enter for camping on a quartz blowout. Dan Alfrey took photos of each post in place, and I have GPS readings from all the points. I will compile the GPS points and email to the Field Trip Chairman of each club.

○○ Vice President Dan Alfrey added this information about the new Club Claim:

[The Club Officers have agreed that, although there will be scheduled Club Field Trips to the Patience club claim \(near Wigwam Creek\), it is **okay for Club Members to visit the claim** and dig on their own! Remember that one claim is LGGMC and the other is DGMG.](#)

- Persons going out to the claim **MUST** let Dan Alfrey know ahead of time by phone or email.
- A club waiver MUST be signed 'prior' to visiting the claim. Approximate hours onsite need to be logged afterward. (For assessment purposes, we need to keep track of the number of visitors and time spent)
- NO power tools can be used for digging, and, until we get a Plan of Operation approved, hole size should be kept smaller.
- **A club Member may bring a guest ONCE.** All guests MUST sign the waiver and log time. Further visits will require Membership (member of either LGGMC or DGMG). **Please encourage club membership.** Annual dues assist the club in providing scholarships, sponsoring youth programs, etc. If a guest would prefer to become a Denver Gem & Mineral Guild (DGMG) member, please contact Bob Park: 303-279-1015 <BPark77@comcast.net>
- Dan is working on some Club Claim Guidelines and, once proofed by the officers, they will be posted on the web site.

○○**Dan Alfrey, Dave and Gerdy Wyatt, and Dick Lackmond** sent some pictures and information about the July 17-18 Last Chance mine trip:

Eleven made it to Creede, July 17th, to visit the Underground Mine Museum on the North end of town. We took the scenic route up and prospected on the dump at The Last Chance Mine, at 10,600' elevation, overlooking the creek. All were successful in finding some nice specimens of sowbelly agate. Purchase price for the keepers was \$2/pound. Trip leaders **Dick and Dan** stayed at a cabin on the mine site (for a small donation toward mine restoration). *You would not believe the stars out that night!* **Connie and Willie Hofmeister** stayed in Del Norte. The others missed out, because, on the 18th, we all met to try our luck at the free spot. We made out like bandits! After loading up our prized treasures, we headed for Thunder-Egg Country! Dick apologized when we got there, because he had to take one full step away from the jeep to come up with two handfuls! We loaded several 5-gallon buckets before it began to rain. All in all, it was a great trip. We all have dozens of specimens to cut and brag about!





(Photo by Gerdy Wyatt)



(photo by Dick Lackmond)

○○**Dick Lackmond** also had an interesting trip (with Dan Alfrey and others) to a private ruby and iolite locality west of Wheatland, WY. Dick reports that the minerals occur in vermiculite. Though the picking wasn't great, Dick found one very nice ruby crystal!

○○**Steve Veatch, Dan Alfrey, and Bob Carnein** visited Collector's Edge Minerals HQ in Golden to obtain images of the Sweet Home mine and minerals, as part of the Alma Study Project. *We were like kids in a (very expensive) candy shop !!!*



Pebble Pups Corner

Lake George Pebble Pups joined the Colorado Springs group for a joint field trip to the Leadville area to collect pyrite and K-feldspar, led by Steve Veatch on July 10. We're working out a schedule for the fall, with the first meeting planned for September. More on that later; have a great summer!

NOTES FROM THE EDITOR

Bob Carnein, Editor
ccarnein@gmail.com
719-687-2739



Many thanks for **Dr. Mike Nelson**, who sent a very interesting article on mineral collecting in Utah. That article will appear in the September issue—keep your eyes peeled! The article below is a continuation of the one I started in the August issue. I hope it answers some of your questions about our local granite outcrops.

"Ask a Geologist" **Weathering of the Pikes Peak Granite II** by Bob Carnein

In last month's Newsletter, we looked at some interesting features of the Pikes Peak Granite, which underlies much of central Colorado. The granite formed when silica-rich magma was intruded at a depth of several miles below the surface during the Proterozoic Era, about 1.04 billion years ago. Although its composition varies locally, in most places, the granite consists of reddish feldspar (called microcline), gray quartz, and variable amounts of biotite mica.

This month, we'll consider three kinds of weathering features that are easy to see in local granite outcrops. The first, called **exfoliation**, produces the large, dome-like features that are nicely exposed in the area of Mueller State Park. The other two, which are smaller in scale, occur in many places, including outcrops and road cuts along US Route 24 east of Florissant, and along Teller Route 1, between Florissant and Cripple Creek. These two smaller scale types of weathering are called **spheroidal weathering** and **case hardening**.

Exfoliation. When granite crystallizes within the Earth, all of the mineral grains are under pressure. This pressure, which is exerted by the weight of the overlying rocks, acts equally in all directions. Its intensity depends on the depth of burial and how dense the overlying rock is. Thus, a microcline grain crystallizing at a depth of 5 miles beneath rocks of average crustal density is "squeezed" in all directions with a pressure of about 30,000 pounds per square inch.

When weathering and erosion processes slowly strip off the overlying rocks, exposing the granite at the surface, the pressure on the microcline and other mineral grains is

Lake George Gem and Mineral Club

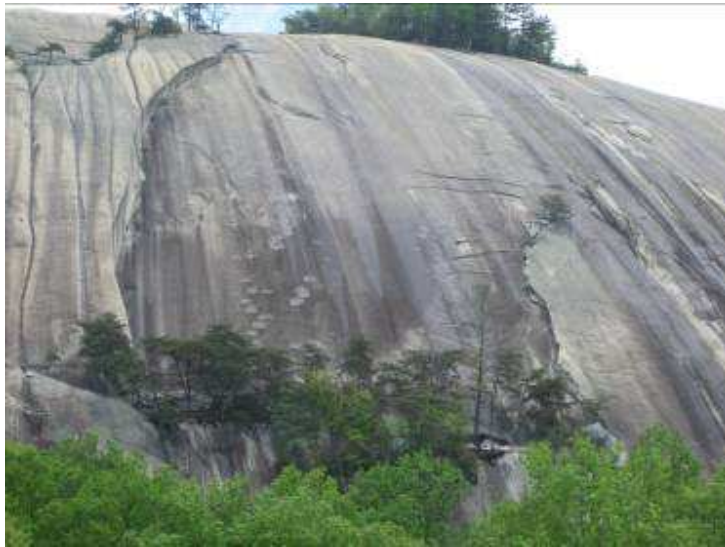
August, 2010

gradually reduced. If the grains making up the granite weren't crowded against neighboring grains, they would expand equally in all directions (much as an air bubble expands as it rises from the sea floor). However, in a rock, all of the surrounding mineral grains also try to expand as the pressure drops, so they're all competing for space to the sides or downward. Because erosion removes material from above the buried granite, only upward expansion is permitted. This upward expansion results in the development of fractures as the pressure is relieved.

If the ground surface is flat, the fractures formed as the rock expands will also be flat. If the ground surface is irregular, with hills and valleys, the fractures mimic the irregularities. Masses of resistant granite surrounded by softer rocks generally "stick up" above the surrounding countryside. The fractures more or less follow the contours of the overlying topography. This results in dome-like mass from which weathered granite "peels", almost like the layers of an onion. Such features are called **exfoliation domes** or **bornharts**. Other examples, besides Dome Rock, include Stone Mountain, near Atlanta, Georgia; Ayers Rock, in Australia; and Half Dome, in Yosemite National Park.



Exfoliation domes, Dome Rock area, Teller Co., CO (Carnein photo)



Stone Mountain, GA



Half Dome (planetware.com)

Spheroidal Weathering. If you observe the road cuts and outcrops along US Route 24 or Teller Route 1, near Florissant, you probably have noticed the rounded, boulder-like appearance of many of the exposures. Some people assume that the "boulders" were placed there by glaciers during the Pleistocene Epoch. However, these "boulders" haven't moved—they form by weathering and erosion of the Pikes Peak Granite *in situ*, with no rolling or transport. The technical term for them is **tors** or **corestones**.

Corestones form by weathering of massive rock that has been broken into blocks by fractures. They can form in any massive rock—the Pikes Peak Granite being the main one seen in central Colorado. Weathering processes are concentrated along the fractures. Those processes break the granite into coarse, angular fragments called **grus** and convert microcline feldspar into clay and biotite into vermiculite and hydrobiotite, among other things.

If you imagine a fractured block of granite shaped like a cube, weathering will occur fastest at the corners of the cube, where three surfaces come together and water can attack from three directions. The weathering rate is slightly slower along the edges where 2 faces come together and is slower still along the single surface of a face of the cube. As a result, the angular, cubic block slowly converts to a rounded mass of unaltered granite (a corestone) surrounded by grus. If erosion processes remove the grus, the corestone is left as a tor.

Case Hardening. As described above and in last month's article, the Pikes Peak Granite is, in most places, surprisingly fractured and altered. Chemical weathering of the granite converts microcline feldspar into clay and biotite mica into vermiculite and hydrobiotite. It also releases dissolved silica and iron and other ions into the groundwater. In some circumstances, especially where evaporation rapidly draws groundwater back toward the surface of the ground, the dissolved silica and iron are precipitated just below the surface, in fractures and pores in the granite. This forms a "layer" or crust that is more resistant to further weathering and erosion than the underlying, fractured rock. As a result, some exposures of the Pikes Peak Granite

Lake George Gem and Mineral Club

August, 2010

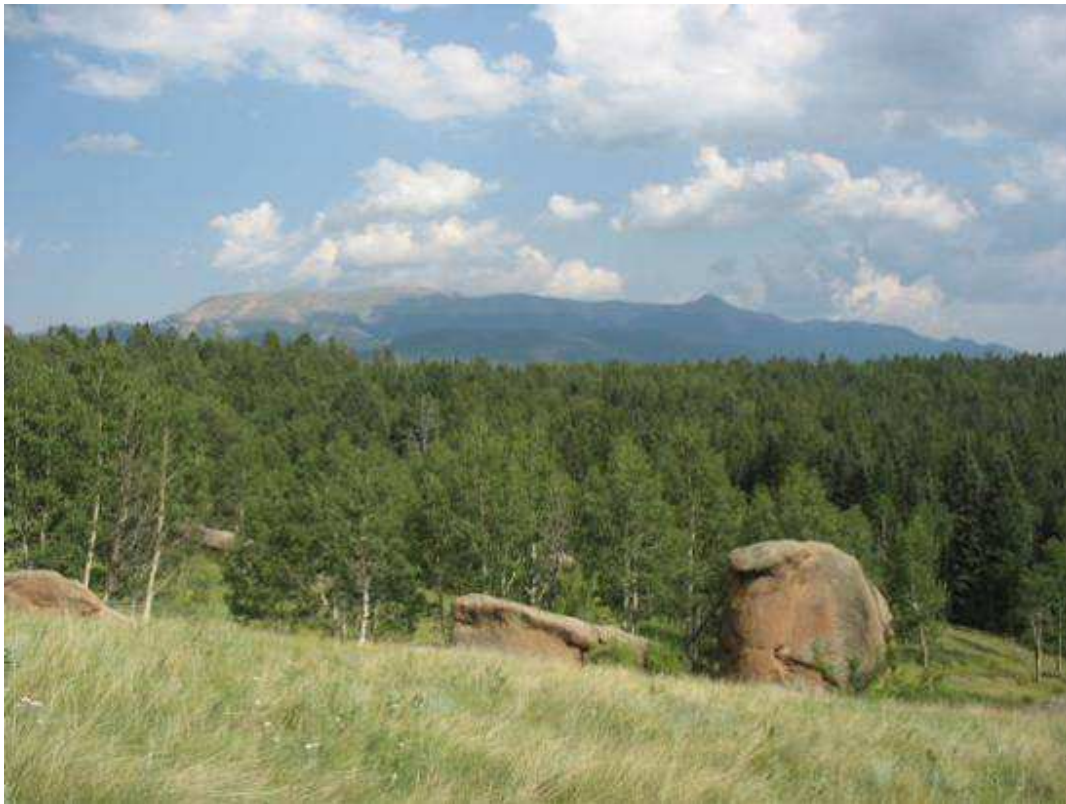
exhibit a "table"-like crust that sticks out over the more weathered granite beneath. Examples occur along trails in the Dome Rock area and along US Route 24, east of Florissant (e.g., the so-called "turtle" and "frog rock").



Corestones, Pikes Peak Granite near Florissant. Note aplite dikes. (Carnein photo)



Granite tors (resulting from spheroidal weathering), Teller Route 1 (Carnein photo)



Case hardening in Pikes Peak Granite, Mueller State Park (tripadvisor.com)



Lake George Gem and Mineral Club

Box 171

Lake George, Colorado 80827

www.LGGMclub.org

2010 MEMBERSHIP APPLICATION

Name(s) _____

Address _____ City _____ State ___ Zip _____

Telephone () _____ - _____ E-mail _____

Names and ages of dependent members: _____

Annual membership - dues Jan. 1 through Dec. 31 are as follows:

- Individual (18 and over) \$15.00
- Family (Parents plus dependents under age 18) \$25.00

Annual dues are due on or before March 31. Members with unpaid dues will be dropped from the roster after this date. **Anyone joining after August 30 shall pay one half the annual dues.**

I hereby agree to abide by the constitution and by-laws of this club.

Signed _____ Date: ____/____/____

I have previously been a member of Lake George Gem & Mineral Club. Yes ___ No ___

My interest areas include:

Minerals ___ Fossils___ Lapidary ___ Micromounts ___
Other _____

I would be willing to demonstrate any of the above for a club program or educational activity? If yes, which: _____

Please indicate which of the following activities you might be willing to help with:

Writing _____ Editor _____ Mailing _____ Local shows _____

Club Officer _____ Programs _____ Field trips _____ Refreshments _____

Questions about the club or club activities? Contact John Rakowski (719) 748-3861

Lake George Gem and Mineral Club

August, 2010

Lake George Gem and Mineral Club

P.O. Box 171
Lake George, CO 80827

The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography and history of the Pikes Peak/South Park area, Indian artifacts and the great outdoors. The club's informational programs and field trips provide an opportunity to learn about earth sciences, 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 meets 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 10:00 AM. From April through September, we meet at 9:00 AM, 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).

Our Officers for 2010 are:

John Rakowski, President

PO Box 608
Florissant, CO 80816
719-748-3861
rakgeologist@yahoo.com

Dan Alfrey, Vice President

PO Box 4164
Woodland Park, CO 80866
719-440-6234
alfreydan@aol.com

Wayne Johnston, Treasurer

207 Cooper Lake Drive
Divide, CO 80814
719-687-6067
wjohnston719@msn.com

Marge Breth, Secretary

PO Box 176
Woodland Park, CO 80866
719-687-8510
artistbreth@aol.com



C.R. (Bob) Carnein, Editor, 507 Donzi Trail, Florissant, CO 80816
ccarnein@gmail.com; 719-687-2739

www.LGGMclub.org

Lake George Gem and Mineral Club

August, 2010