

# The Lake George Gem and Mineral Club - *Club News*, December, 2009



## Regular Meeting of the Lake George Gem & Mineral Club Saturday, December 12, 10:00AM Lake George Community Center

We're getting into the **Holiday Season**, and our December meeting will be a **Potluck** with **members asked to bring an appetizer or dessert type item to share**. The club will supply plates, eating utensils, cups, lemonade and coffee. **Steve Veatch** will present "**The Victor Study Project**" (see the abstract included in this newsletter).

We will also have a "**Show and Tell**" or "**Bring and Brag**". Bring some new mineral specimen(s) that you might have found or bought during the recent year or specimens that you'd like help with identification. Ideally these would be items from one of our field trips. Let's see what people found. This can be a good time to learn from other members, and we might get some ideas for field trips for next year.

**We invite our Pebble Pups and their families to join us as guests**. These kids are bright, eager to learn and loaded with plenty of questions. It should be a great time for all.

On behalf of myself and our Club Officers I wish everyone a Merry Christmas, Happy Hanukkah or whichever other Holiday that you may celebrate at this time of year. We look forward to excellent field trips and fun times next year.—John Rakowski, President

### Coming Events

- First Meeting, Friends of the CSM Geology Museum**, "Historic Photos of Colorado Mining" book signing by Ed Raines; call 303-273-3823 or [bgeller@mines.edu](mailto:bgeller@mines.edu) for info ... Dec. 3
- Annual Open House and Half-Price Sale**, Dave Bunk Minerals, 1441 W. 46 Ave., Unit 8; call 303-477-6897 for info ... Dec. 5-6
- 46<sup>th</sup> Annual Pikes Peak Gem & Mineral Show**, Phil Long Expo Center, Colorado Springs. Theme: "Agates"; contact Ron Yamiolkoski at [ron.yamiolkoski@aecom.com](mailto:ron.yamiolkoski@aecom.com) for info. ... Dec.5-6
- Holiday Sale at USGS Map Store**, Bldg. 810, Denver Federal Center, Lakewood; 15% off, free maps for holiday wrapping. Call 303-202-4675 for info. ... Dec. 7-22
- Monthly meeting, Columbine Gem & Mineral Society**, Christmas Party & Gift Exchange, 6:00PM, Shavano Manor, 525 W. 16<sup>th</sup> (at J St.), Salida ... Dec. 10
- Flatirons Gem & Mineral Show**, Boulder County Fairgrounds, 9595 Nelson Rd. (Nelson & Hoover), Longmont ... Dec. 11-13

<b><u>Colorado Springs Mineralogical Society Monthly Meeting</u></b> , Holiday Treats and White Buffalo Gift Exchange, 7:30PM, Colorado Springs Senior Center, 1514 N. Hancock, Colorado Springs	... Dec. 17
<b><u>Pueblo Rockhounds Monthly Meeting</u></b> , Christmas Dinner & Gift Exchange, 6:00 PM, Westminster Presbyterian Church, 10 University Circle, Pueblo	... Dec. 17
<b><u>Free GPS Map and Compass Class</u></b> , USGS, Building 810, Federal Center, Lakewood; 9AM to 4PM; call 302-202-4689 for information and reservation.	... Jan. 8
<b><u>Tucson Gem, Mineral, &amp; Fossil Showcase</u></b> (various venues)	... Jan 30-Feb. 14
<b><u>Tucson Gem and Mineral Show</u></b> (Tucson Convention Center)	... Feb. 11-14
<b><u>Desert Gardens International Gem &amp; Mineral Show</u></b> ; free; Desert Gardens RV Park, Quartzsite, AZ; <a href="mailto:info@desertgardensrvpark.net">info@desertgardensrvpark.net</a>	... Feb. 1-28
<b><u>Colorado School of Mines Book Sale</u></b> (Details later)	... Feb. 15-19
<b><u>Denver Gem &amp; Mineral Guild Annual Show</u></b> , "Jefferson County—Full of Rocks". Jefferson County Fairgrounds	... Feb. 26-28
<b><u>Denver Museum of Science &amp; Nature Programs</u></b> (visit their website for more info):	
Dec. 3: <b>The Tangled Bank: An Introduction to Evolution</b>	
Dec. 10: <b>Sandstorms to Snow Leopards: The Cretaceous Tourist in Mongolia</b>	

### Welcome New Members

Bob, Mary, Sean, and Patrick Glover, of Florissant

### Club News

#### ❖❖ Dues are due—see the membership form at the end of the Newsletter

❖❖ Eighteen members gathered at the Community Center on November 14, despite the threat of a snowstorm (which never materialized). Pres. **John Rakowski** was "under the weather", so V.P. **Dan Alfrey** took over. There were several announcements:

- The 2010 show is set for August 20-22
- **Elizabeth Lamont** has taken over as Club Historian
- **Dick Lackmond** reported that the Colorado Federation of Mineral Societies now has 9 clubs—definitely a "go"
- We need someone to see that our annual scholarship gets more publicity (contact John or Dan if interested in helping with this)
- We could use some program suggestions/volunteers for winter meetings
- We need a publicity coordinator for the Pebble Pups

❖❖ **Bob Carnein**, acting for John Rakowski, presented an award certificate from the Rocky Mountain Federation of Mineralogical Societies to our Webmaster, **Dan Alfrey**. Our website came in 4<sup>th</sup> out of 46 websites in the 12 western states included in the R.M.F.M.S. Dan mentioned that the site has had more than 3000 "hits" since he took it over 2 years ago! Thanks to Dan for all his hard work on developing an outstanding website.



Bob Carnein (right) congratulates **Dan Alfrey**, our winning Webmaster.

❖❖ **Todd Mattson** showed off a mixed galena, sphalerite, pyrite, and chalcopyrite specimen that he risked his life collecting at Farncomb Hill. He noted that you can pan for garnets in Swan Gulch, on the north side of Farncomb Hill, and proposed summer trips there and to Hoosier Pass, where collectors can pick up pyrite by the pick-up load.

❖❖ **Bob Carnein** presented a program on the history of mine lighting. He noted that many types of early miners' lights doubled as gas detectors. Because of open flames, they also caused fires in the abundant timbers used to support mine roofs and shafts and ignited methane, especially in coal mines. Before the invention of battery powered lamps, many ingenious arrangements were tried for isolating the flame in an oil lamp from the surrounding mine air. Such flame "safety lamps" are still used in some places to provide indications of air quality. Bob showed examples of various kinds of lamps from his collection.



Miners' lamps and publications. *Dan Alfrey photo*



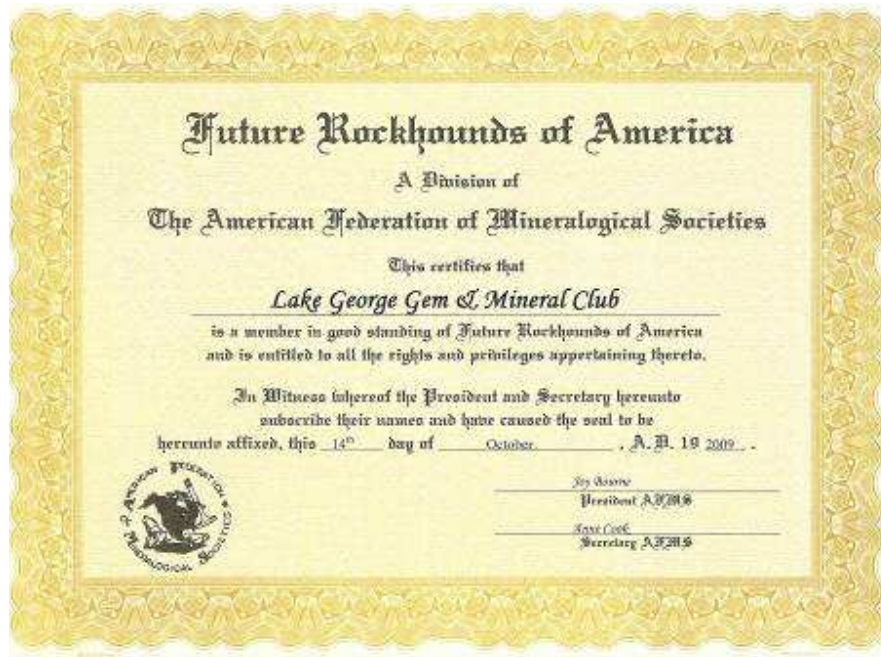
Bob shows off an American gas-testing lamp. *Dan Alfrey photo*

❖❖ **Marge Breth** has suggested a future Club program by a spelunker who helped to discover new passageways in the Cave of the Winds.

❖❖ **Steve Veatch** has suggested nearly a dozen possible future field trips, including Pawnee Buttes, Oligocene mammal sites in South Park, sea urchins on the Rampart Range Road, and geologic hiking tours of the Cripple Creek district and Garden of the Gods.

### **"Pebble Pups Corner"**

President **John Rakowski** has announced that our Pebble Pups program received the American Federation of Mineralogical Societies "Future Rockhounds of America" certification.



**Steve Veatch** presented the second Pebble Pups program on November 10. The topic was "Ice Ages", and about a dozen Pebble Pups and family members attended.



Pebble Pups and family members.

Dan Alfrey photo





An emphatic **Steve Veatch** at the October Pebble Pups meeting.

*Dan Alfrey photo*

The next meeting will be **December 8 at 7:30PM** at the Community Center (Please don't be late!). **Bob Carnein** will help the Pups learn the basic principles of mineral identification. Free hardness sets, consisting of 9 of the 10 minerals of the Mohs hardness scale will be distributed, and we will learn the physical properties used to identify them. Visitors are welcome to attend. Thanks to **John Rakowski** for providing samples of corundum and topaz for the hardness sets!

**Reminder:** This will be a "hands on" program. Participants should bring the following to the meeting:

1. A list of the 10 minerals of the Mohs hardness scale (can be found on the internet)
2. A magnet (a refrigerator magnet will work)
3. A small glass jar (for testing hardness)
4. A penny or nickel
5. An old pocket knife
6. A steel nail

**For January 12**, the topic is "Ore Minerals". Again, if any Club members have spare samples of the minerals listed below, please contact Bob at [ccarnein@gmail.com](mailto:ccarnein@gmail.com) or 719-687-2739.

bauxite  
 chalcocite  
 lepidolite  
 scheelite  
 wolframite

beryl  
 galena  
 magnetite  
 sphalerite

bornite  
 goethite  
 molybdenite  
 spodumene

chalcocite  
 hematite  
 pyrolusite  
 stibnite

This is a "wish list"; if you have extras of other minerals, please let us know. We probably can figure out how to use them! Contact Steve Veatch, John Rakowski, or Bob Carnein.

## NOTES FROM THE EDITOR

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



I hope this newsletter finds you in good health at this special time of year. This year's Victor Study Project was a great success, thanks to **Steve Veatch's** leadership and participation by many Club members. In addition, various organizations provided access to materials relating to Victor history, and Dave Bunk allowed photography of his superb collection of minerals from the Cripple Creek district by yours truly. Steve presented the results at the New Mexico Mineral Symposium, in Socorro, on November 14, and he will repeat that program at our December 12 meeting. We all hope that you can come and enjoy the program and holiday fellowship! The following is a shortened abstract of the presentation.

### VICTOR—COLORADO'S CITY OF MINES

Steven Wade Veatch, C. Robert Carnein, Marge Breth, Dan Alfrey, Wayne Johnston, Roger Loest, Dee Loest, Mary O'Donnell, Jo Beckwith, Judy St. Peter, and Brent Geraughty.

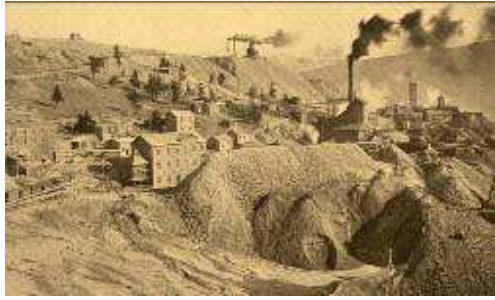
Since its beginnings in 1891, the Cripple Creek district's 500 or so mines have produced an estimated 22 to 24 million ounces of gold—more than half of Colorado's total output of gold. The Victor area included the district's 4 richest mines. The Portland, Cresson, Ajax, and Independence mines together produced more than one-third of the district's gold, and total gold production for the Victor area is about 12.5 million ounces (Jensen, 2003). Victor is thus the heart of the most productive gold district in Colorado and the third most productive in the U.S.



Portland mine. Carnein collection



Cresson mine on Bull Hill. Carnein collection



Ajax mine. Carnein collection



Independence mine. Carnein collection

The city of Victor, on the southwestern side of Pikes Peak, was founded by Frank and Harry Woods. The city began to take shape in 1891, shortly after W.S. Stratton discovered gold nearby. Victor quickly grew from a camp of tents and miners' shacks on the side of Battle Mountain to a platted city by 1893. The following year, Victor was incorporated. Soon Victor was one of the most prosperous and largest cities in Colorado.

During the excavation of a hotel foundation in downtown Victor, workers discovered a rich gold vein. The Gold Coin mine (aka Granite mine) was quickly established to work this vein. The Strong mine, another mine within the city limits, was also a big producer. Victor soon became known as the "City of Mines."



Granite (aka Gold Coin) mine. Carnein collection



Strong mine. Carnein collection

Today, Victor is one of the best preserved mining camps in Colorado, with period homes, turn-of-the century buildings, and historic gold mining structures. Currently, AngloGold Ashanti owns about 85 percent of the district's productive area, with recoverable gold reserves and resources amounting to several million ounces (Tim Brown, personal communication, 2008). Today, the Cripple Creek and Victor Gold Mining Company operates the largest open pit and heap-leach mine in Colorado. Low-grade disseminated gold (native gold attached to pyrite or within the molecular structure of pyrite) is the target of current mining operations (Hunter *et al.*, 2009). Production for 2009 is estimated at 292,000 ounces of gold (Tim Brown, personal communication, 2009). A continuing exploration program, with the goal of defining additional resources, recently extended the mine's projected life to 2016.

More than 120 minerals have been reported from the ores and host rocks of the district (Carnein and Bartos, 2005), of which a small number are of economic or collector interest. The major historical ore minerals are calaverite, AuTe<sub>2</sub>, sylvanite, Lake George Gem and Mineral Club

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(Au, Ag)<sub>2</sub>Te<sub>4</sub>, and krennerite, (Au, Ag)Te<sub>2</sub>. Because these minerals are difficult to distinguish, their relative importances are unknown, but indirect evidence suggests that calaverite is far more important than other ore minerals (Jensen, 2003).

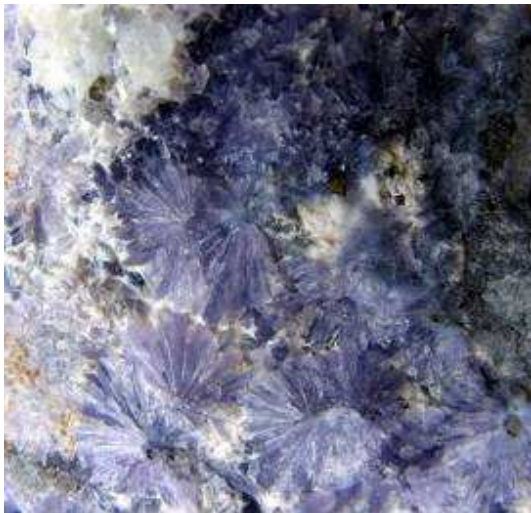
Attractive specimens of these and other minerals can be seen in museums and private collections, although native gold specimens of collector interest are very scarce. Other specimen-grade minerals include large amethyst crystals, yellow and purple fluorite, melonite, tellurium, turquoise, and, in a single occurrence from 2001, an attractive assemblage of botryoidal rhodochrosite (figure 1), purple creedite (figures 2 and 3), yellow and blue celestine, and greaksutite, all from the Cresson open pit.



**Figure 1.** A beautiful specimen of rhodochrosite (botryoidal), celestine, and creedite from the Cresson open pit, 6 cm x 3.5 cm. C.R. Carnein Collection. Photo by S. Veatch.



**Figure 2.** Creedite from the Cresson open pit, 1.3 cm across. C.R. Carnein Collection, Photo by S. Veatch



**Figure 3.** Acicular, radiating sprays of creedite. 3.5 cm across, C.R. Carnein Collection, Photo by S. Veatch

Aside from the recent Cresson finds, poor records were kept with most historical specimens, and locality information for fine specimens was often fabricated. As a result, and because the geochemistry and mineralogy of the productive zones were



relatively uniform across the district (Jensen, 2003), one cannot readily identify minerals that are unique to the Victor area.

## References

Carnein, C.R., and P.J. Bartos, 2005, Famous mineral localities: the Cripple Creek mining district, Colorado: *The Mineralogical Record*, vol. 36, no. 2, p. 143-185.

Hunter, E., Mogensen, P., and S.W. Veatch, 2009, *The world's greatest gold camp: an introduction to the history of the Cripple Creek & Victor mining district*. Mining History & Technology Series, volume 2: Colorado Springs, CO, Western Museum of Mining and Industry. 68 p.

Jensen, E.P., 2003, Magmatic and hydrothermal evolution of the Cripple Creek gold deposit, Colorado, and comparisons with regional and global magmatic-hydrothermal systems associated with alkaline magmatism: Unpublished Ph.D. dissertation, University of Arizona, 846 p.

**Note:** This article is a condensed version of a paper presented by the Lake George Gem and Mineral Club at the 2009 New Mexico Mineral Symposium held at the New Mexico Mining and Technical Institute.



An artist's view of one of the Battle Mountain mines near Victor, Colorado.

Original watercolor by club member Marge Breth.

# Lake George Gem & Mineral Club

Box 171

Lake George, Colorado 80827

## 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**

[www.LGGMclub.org](http://www.LGGMclub.org)

Lake George Gem and Mineral Club

December, 2009

**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  
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[www.LGGMclub.org](http://www.LGGMclub.org)

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