

The Lake George Gem and Mineral Club - *Club News, November 2007*



Meeting Time 10:00 AM (Winter Schedule)

Elections:

The annual election of officers will be held at the November meeting. The Nominating Committee has presented the following slate of candidates. Additional nominations may be made from the floor.

Office	Candidate
President	Maury Hammond
Vice President	John Rakowski
Treasurer	Mary McDonnell
Secretary	Rebecca Blair

There are also important positions to be filled by appointment. The following members have agreed to serve in those positions:

Editor	Richard Parsons
Show Chairperson	John Rakowski
Field Trip Chairperson	Dan Alfrey

Program for the month:

The Silicates: The DNA of the mineral world, presented by Bob Carnein

By volume, about ninety-two percent of Earth's crust consists of silicate minerals, most of them made of 8 common elements. Hundreds of widely different minerals result from the repetition and shuffling of a single, simple structural unit consisting of silicon and oxygen ions. Substitutions of one element for another provide the "mutations" that make all of this variety possible. A little knowledge of the basic rules governing silicate structure helps the mineralogist to explain such varied properties as the crystal habit of garnet or beryl, the cleavage of muscovite or hornblende, and the order in which minerals crystallize from a magma. This talk aims to provide the mineral enthusiast with a basic understanding of how silicate structure works.

Dr. Carl "Bob" Carnein and his wife Nell moved from Pennsylvania to Arabian Acres in July, 2007. Bob has degrees in geology and glaciology from Ohio State. He taught geology for 37 years, first at Waynesburg College, and later at Lock Haven University of Pennsylvania. From 1972-1989, he taught Waynesburg College's field-geology course from a building located behind the Thunderbird in Florissant, and he and Nell met in Florissant in the late 1970's.

Mineralogy, petrology, and structural geology are his main interests, and he has collected minerals since the mid-1950's.

Silent Auction:

For the silent auction, please bring items you are willing to contribute to the club, and a few dollars to buy things with!

Member News:

Loren Lowe has informed us that one of our long time members, Lou Severini lost his life October 30 in an auto accident. At press time, no further details are available. We will share additional information as the picture clears.

A member of the Lake George Gem and Mineral Club, the Colorado Springs Mineralogical Society and Gold Prospectors of Colorado, Lou will be missed by many, in addition to his family.

He will be remembered for his quiet warmth and his boundless enthusiasm for the world of gems, minerals and that precious yellow metal caught in his well-worn gold pan.

Adios, Lou!

Ed.



Photo by Steven Veatch, May 2007



Letter from the President

This is the last article I will write before my term as president expires. At our November regular meeting, the club will vote on a new leadership team. The nominating committee of Dee, John, Loren, and Richard has generated an excellent slate of officer candidates. While these special folks each bring unique talents to the table, they all share important qualities necessary for a future vibrant club: enthusiasm, competence, concern for safety in the field, a generous spirit of volunteerism, and—most important of all-- a sense of humor. I have great confidence in all these candidates.

I can't acknowledge enough the 2007 officers who have assisted me in so many ways: Maury Hammond, Mary O'Donnell, and John Rakowski. Richard Parsons has faithfully served as editor of our newsletter again this year. He has also been a special mentor to me, because of his extensive knowledge gained in multiple clubs over many decades. Rebecca Blair volunteered as dealer chair for our annual show this year. Dan Alfrey is building our web site. Several members have given a program, lead a field trip, and/or contributed articles to the newsletter this year. These include Loren Lowe, Jack Null, Pete Modreski, Richard Parsons, Steve Veatch, and Jay Zimmerman.

Year after year, Rich Fretterd has allowed our club to collect on his claims for a day. The highlight of this field season was a first-time visit to his Petra topaz claim, which attracted about 40 people. We were privileged again to collect on a "Colorado classic", the Hartsel claims of Lark and Dave Harvey. A very large bladed blue barite specimen was found there by Harry Leipold on the September club trip. He recently donated it to the Pikes Peak Historical Society museum in Florissant. The mineral, rock, and fossil collection in this museum, started by our club several years ago, has gradually grown and is now probably the finest exhibition of Pikes Peak backcountry specimens in the state outside the Denver area.

For the first time, a new kind of quality learning experience was offered in June jointly for our club, CSMS, and Gold Prospectors. Club members Rich Fretterd, Loren Lowe, and Steve Veatch imparting their extensive knowledge. While this was titled "New Member Orientation", I learned a lot!

Some of the more important future jobs in our club are not elected positions. For 2008, John Rakowski has volunteered to be Show Chairman, and Rebecca Blair, Dealer Chair. These two have already thrown their names in the hat for vice president and secretary, respectively! The logistics involved in putting on a successful outdoor show, keeping both vendors and customers happy, are substantial. Please support them in this important endeavor next August. Richard will once again be newsletter editor. A newsletter can only be as good as the articles in it. Please consider contributing in 2008, and helping him in any way you can.

The club maintains a healthy budget while contributing to the community. Again this year, our largest outlay was in support of a paleontology intern at Florissant Fossil Beds National Monument. We are thankful to the Johnson family's Lake George Company. Year after year, they have provided their choice "downtown" lot free of charge for our annual show, which gives us more fiscal room to contribute back to the community via show proceeds. Unfortunately, uncertainties this summer regarding timing and location of dam reinforcement (earth excavation) caused cancellation of the show. Next year, we expect to have one!

Our club has a nice cross-section of novice collectors, experienced rock hounds, and professional geologists. Embedded within our membership are a variety of experts who can identify minerals, share their lapidary tricks or knowledge about choice collecting sites, or contribute in some other substantial way. For example, at the December meeting, you will enjoy Dee's chili while listening to another great presentation by Steve Veatch!

It should be noted, while some gem and mineral clubs in the US are currently struggling to maintain membership, ours has "grown like crazy" in recent years. Our membership is now on par with many big city clubs. I attribute this increase to outstanding field trips during the summer, quality programs in the winter, and willingness by the membership to give of their time and talent. In 2004, our typical field trip averaged 9 participants, according to our sign-up records. This summer, average attendance has more than tripled! To meet demand, we even offered several collecting trips over and above regularly scheduled ones. New members are key to our club future, especially when they are willing to share their knowledge. One of our newest is Bob Carnein, who is giving the program this month.

In the end, our club is as good as its membership and spirit of volunteerism. 2008 is going to be a great year!

Andy Weinzapfel

METAMORPHIC ROCKS: PART 2

by John F. Sanfaçon

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In our last issue, we discussed those metamorphic rocks which derive from igneous rocks; this month we will look at the metamorphic species which were originally sedimentary and formed from *clay minerals* or *quartz*, i.e. *slate*, *phyllite* and *quartzite*. In our (next) issue, we will deal with those metamorphic rocks which were derived from *carbonate rocks*, to wit, *marble*, *skarn*, and *calc-silicate* rocks.

Slate is almost always formed from *argillaceous*, i.e. *clay-rich*, rocks, but there are some examples of slate being formed from a fine-grained silicate volcanic ash. The well-known parting of thin layers of slate is due to the parallel orientation of micaceous minerals or chlorite. The latter mineral usually accounts for the "slate blue" or dark green color of commercial grades of slate, which ideally break easily in only one direction. Other colors of slate, e.g. browns and reds, are often the result of finely divided iron oxides. High-quality slate has become scarce and expensive, prompting the use of substitute materials for the table and counter tops, roofing shingles, billiard tables and blackboards of my youth. For us rockhounds, slate does not provide much in the way of collectible mineral species: some cavities can play host to quartz, or the occasional pyrite crystal, or other sulfides. I myself try to get representative samples of the major rock types for my own collection and teaching purposes, and it's surprising how difficult this can be. I just returned from the Springfield Show in August, and could not find any rocks for sale! All kinds of minerals, gems and fossils, but nothing in the way of rock types! Little wonder, then, that most of us rockhounds are more adept at mineral identification, and indifferent to, or ignorant of, rock species. How many of us collect *rock* types when on a field trip? If it weren't for scientific supply houses like Ward's, my own *rock* collection would be miniscule.

Phyllite is a transitional rock between *slate* and *schist*, with a grain size intermediate between them. Phyllite lacks the smooth, homogenous texture of slate, and unlike schist, does not have individual minerals that are megascopically discernible. What phyllite *does* have is a characteristic wavy layering, usually with a silky sheen, caused by a pronounced foliation of chlorite or micaceous minerals. With a higher degree of metamorphism than slate, but less than schist, phyllite can play host to the occasional pod or crystal of *staurolite*, *kyanite*, or *andalusite*. Schist can be home to all the above minerals, plus the *garnets*, *pyroxenes*, and *amphiboles*. Schists can display such drastic changes from the parent material under high heat and pressure that it can be very difficult to determine just what the original rock was, i.e., sedimentary or igneous.

Quartzite, like its parent rock, *sandstone*, is an extremely tough rock which shows no foliation or banding. Composed entirely of silica, quartzite differs from sandstone only in that the latter rock breaks *around* the individual grains of quartz, whereas quartzite breaks only with great difficulty *through* the quartz grains. Given the fact that quartzite is monomineralic in composition, it shouldn't be surprising to find that the only mineral commonly found therein is quartz itself. If pebbles of quartz are seen in a fine-grained quartzite groundmass, the rock would be called a *conglomerate quartzite*. On the other hand, if we found a rock with quartzite pebbles inside a sedimentary matrix, we would call the rock a *quartzite conglomerate*. Much of the prized *puddingstones* used traditionally in walls and fireplaces are either *conglomerate*

quartzites or *quartzite conglomerates*. Either way, such rocks are incredibly gnarly, impervious to chemical attack and resistant to other erosional forces. If there ever was a rock to qualify for the title of “rock of ages”, quartzite would be it!

Sources, and Suggestions for Further Reading:

- Bucher, K. and Frey, M. *Petrogenesis of Metamorphic Rocks*; Berlin: Springer-Verlag, 1994
- Sinkankas, J. *Mineralogy*; New York: Van Nostrand Reinhold, 1964
- Spock, L.E. *Guide to the Study of Rocks*, New York, Harper’s, 1953

Out on a Rock –

The Editor’s Thoughts
for Today

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Outgoing President Andy Weinzapfel, in his letter (above) spent several paragraphs thanking many of those members who have contributed to the club’s success. One very important person was left out – Andy Weinzapfel!

As President the past two years, Andy has worked diligently to arrange interesting programs and field trips for each month’s meeting. He has worked particularly hard to find new localities to visit.

Thanks, Andy!



**A local favorite silicate –
Microcline, v. Amazonite**

Coming Events

"The Mining Camps Speak".

... **November 8, 2007**

Western Museum of Mining & Industry, 8:00 PM

Beth and Bill Sagstetter, will highlight their highly praised book: The Mining Camps Speak. Through their photography and lecture, the Sagstetters provide a virtual tour of abandoned mining camps and ghost towns throughout Colorado, Idaho, and California...." Lake George Gem and Mineral Club members admitted free (must show current membership card). 225 North Gate Blvd. (at I-25 Gleneagle exit #156A); 719-488-0880; www.wmmi.org.

Lake George Gem and Mineral Club Meeting

... **Nov 10, 2007**

Bob Carnein, a new member of the Lake George Club, will give a talk on silicate minerals. Mr. Carnein formerly ran a geologic field camp in the region in the 1970's and 80's.

New Mexico Mineral Symposium

... **November 10 – 11**

28th annual Symposium at the New Mexico Institute of Mining & Technology in Socorro, New Mexico. One of the classic annual events in the SW United States! For further info contact Dr. Virgil Leuth at vwlue@nmt.edu

Changing Mines in America, A Photography Exhibit by Peter Goin

... **Continues through
Dec. 29, 2007**

Western Museum of Mining & Industry, Colorado Springs. Through the 24 photographs on display at the museum, Goin reveals that mines are more than physical degradations; they are evolving cultural artifacts on the American landscape. 9 a.m. - 4 p.m. daily; customary admission applies. Lake George Gem and Mineral Club members admitted free (must show current membership card). 225 North Gate Blvd. (at I-25 Gleneagle exit #156A); 719-488-0880; www.wmmi.org.

Science and nature writing workshop (k-12)

... **February 2, 2008**

9:00am-5:30pm, Cripple Creek Park & Recreation. Instructors Steven Veatch and Don Miranda, local authors. Registration Fee: \$49, includes certificate of completion. To register or for more information, contact Cripple Creek Park & Recreation, 719/689-3514

Are you a rockhound?

You may be a rockhound if –

You can point out where Tsumeb is on a world globe.

The baggage handlers at the airport know you by name and refuse to help with your luggage.

You have ever found yourself trying to explain to airport security that a rock hammer isn't really a weapon.

You consider a "recent event" to be anything that has happened in the last hundred thousand years.

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 2007 are:

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