

PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

SEPTEMBER 2009

PICK&PACK

Volume 49

Number 8

ROSE QUARTZ

AND

BLUE QUARTZ

BY STEVEN WADE VEATCH, CSMS

Quartz (SiO_2) is a common mineral found in all three classes of rocks (igneous, metamorphic, and sedimentary) in many environments, and in a range of colors. Rose and blue quartz are less common than some of the other varieties.

Rose quartz has a pale pink to rose red color thought to be caused by trace amounts of titanium that absorbs all colors except pink. This may account for its rosy color. In a laboratory experiment, samples of rose quartz from several localities were carefully dissolved in acid. The remaining insoluble residue consisted of thin microscopic fibers. These fibers may also be responsible for the color of rose quartz.

Well-formed rose quartz crystals are rarely found in nature. Rose quartz is generally found in massive chunks associated with pegmatites (Fig. 1). The term *pegmatite* refers to exceptionally coarse-grained crystalline granite. Since rose quartz is cloudy, it is not popular as a faceted gem but it is commonly formed into cabochons, rounded into beads for necklaces, or carved into various objects.



Fig. 1. This large rose quartz specimen was found at the Devil's Hole Mine (owned by Tezaks), about a mile from the town of Cotopaxi, Colorado. Photo © 2007 A. Schaak (used w/permission)

Rose quartz has been named as South Dakota's official state mineral. Here rockhounds have a good chance to find specimens ranging from shades of light pink to rose-red. Some rose quartzes from South Dakota have a distinctive asterism, a star-shaped display of light on the polished surface.

Blue quartz has a deep to sky blue color, is packed with tiny grains such as rutile (TiO_2) and ilmenite (FeTiO_3). Other inclusions might include tourmaline, crocidolite, magnesioriebeckite, zoisite, and several others. Some researchers hypothesize that the blue color comes from the Rayleigh scattering of light by these microscopic inclusions. Rayleigh scattering selectively scatters visible light of the shorter blue wavelength. However, the cause of the blue color still remains uncertain. Blue quartz has a waxy luster and sometimes displays asterism.

Blue quartz occurs at a number of localities. In Llano County, Texas, blue quartz is found as small, doubly-terminated crystals in a rhyolitic porphyry informally called Llanoite. The crystals weather out of the host rock and can easily be collected. Blue quartz is also found in a diorite near the Dairyland Power Dam near Tony, Wisconsin. Blue quartz was recently discovered in the Cushing Point Formation at Peak's Island, Maine. The specimens there have inclusions with the chemistry of biotite. In the past, biotite has not been listed as a possible inclusion. Research now suggests that the inclusion of biotite on Peak's Island may be responsible for giving quartz its blue color. Blue quartz is associated with pegmatites of the Cape Ann Granite at Andrew's Point in Rockport, Massachusetts (Fig. 2). The author has found blue quartz at two Colorado locations: Park County near

CSMS is an incorporated non-profit organization with these goals:

- To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.
- To encourage study, collection, and fashioning of minerals.
- To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.
- The Pick&Pack is published monthly to assist and promote the above.

Proud Members of:

American Federation of Mineralogical Societies (AFMS)
www.amfed.org

Rocky Mountain Federation of Mineralogical Societies (RMFMS)
www.rmfmms.org

Colorado Federation of Gem & Mineral Societies (CFGMS)
www.coloradorocks.org

Colorado Springs Mineralogical Society

Founded in 1936

Lazard Cahn

Honorary President

Also in this Issue

Ask a Geologist	2
September Program	3
AFMS News	3
RMFMS News	4
President's Corner	4
Rockhounding the High Country	5
Dorothy Atlee	5
The Generals Reach for the Clouds	6
Picnic Photos	8
A Quick Look at Vanadinite	9
WMMI Happenings	9
Youth Program Agenda	10
Florissant Intern's Letter	11
Claim Jumpers	11
Upcoming Shows	12
Earth Science Rocks!	12
Calendar, Fld Trips, Contacts	13
General Assembly Minutes	14



Fig. 2. This blue quartz megacrystal is located in the pegmatites of the Cape Ann Granite at Andrew's Point in Rockport, Massachusetts. Photo © 2007 H. Renyck (used w/permission)

Hartsel and on the tailings of the Bull Domingo Mine in Custer County northeast of Silvercliff. A famous site—Antequera—near Malaga, Spain yields translucent crystals of intensely blue quartz.

While some varieties of quartz are well known, such as amethyst and smoky quartz, blue quartz is a lesser known variety. The sapphire-blue quartz is wonderful to behold and exciting to find in the field. The rich blue colors hold your attention and move you to plan a collecting trip. The variable rose colors beckon the collector to cut and polish slabs of rose quartz rough. Both varieties of quartz truly deserve a spot in your collection.

References:

- Coblidge, T., 1986. *Why is Blue Quartz Blue?*, Geological Society of America 18: 567.
- FrondeL, C., 1962. *The System of Mineralogy*, 7th edition, vol. 3, Silica Minerals, John Wiley and Sons Publishers, N.Y., 334 p.
- Koivula, J., 2003. *Blue Quartz*. *Gems & Gemology* 39, p. 44-45.
- Romero Silva, J.C., 1996. *Blue Quartz from the Atequera-Olvera Ophite, Malaga, Spain*. *The Mineralogical Record* 27, p. 99-103.
- Rossmann, G. R., 1994. *Colored Varieties of the Silica Minerals: in Silica: Physical Behavior, Geochemistry and Materials Applications*, edited by P.J. Heaney, C.T. Prewitt, and G. V. Gibbs, Washington, D.C., Mineralogical Society of America, *Reviews in Mineralogy*, vol. 29, p. 433-468.
- Wise, M. A., 1981. *Blue Quartz in Virginia*, *Virginia Minerals* 27, p. 9-13.
- Zolensky, M. E., Sylvester, P.J., and Paces, J. B., 1988. *American Mineralogist*, 73, p. 313-232.

ASK A GEOLOGIST

BY MIKE NELSON, CSMS

Jamie writes: Rockguy, can you tell me what sort of a fossil that I have found; please see the attached photo (Fig. 1)? Is it a horn coral, maybe petrified wood, or maybe a fossil squid pen? I found it on a rest break while traveling through Kansas.



Jamie, what you found is really not a fossil at all! Although perhaps resembling fossil squid pens (known as belemnites) and



Fig. 1. What is it? Photo by Jamie.

and maybe even superficially a fossil horn coral, what you have is a secondary sedimentary structure known as *cone-in-cone*. Your sample is probably just a small part of a much larger specimen that has broken away from the main mass (Fig. 2). The cone-in-cone structure resembles a series of small elongate funnels stacked within one another. Cone-in-cone may sometimes be observed in concretions where the cones are small, less than one inch, and in other times as large cones, up to 8-10 inches, forming solid beds within another rock, usual black marine shale. A top view of a cone-in-cone structure might resemble a series of circles (Figs. 2-3).

Cone-in-cone structures are composed essentially of calcite (calcium carbonate) fibers although some have a mixture of included clay particles - that much is known! Occasionally they form in gypsum. What we do not know from the rock record is how the structure forms, nor the environment of deposition, as the formation of modern/recent cone-in-cone is unknown. And, although cone-in-cone is almost always associated with marine black shale, certainly not all black shales display these structures. In fact, cone-in-cone is somewhat rare in the rock record.

A geological debate periodically takes place as to the exact origin of the structure revolving around which came first—the cone-in-cone structure or the enclosing host rock. Some geologists believe that the calcite fibers grow at the same time the host rock is forming. Others believe the cones form after the deposition and lithification of the host rock—the fibers are intrusive. This is sort of like a chicken or the egg first question.

The Kansas Geological Survey (2003) believes the cones form (precipitation of calcite) almost immediately after the deposition of the sediment (the host rock). The pH in the sediment was perhaps lowered by the decomposition of organic matter so that the calcite was able to precipitate. They also believe that stresses caused by gravity may have allowed for some of the near vertical beds of cones. At any rate, the Survey has shown that the cones developed before the enclosing sediments were hardened into rock.

Phillips and others (2005) have studied cones and believe that the structures formed just below the sediment-water interface and



Fig. 2. Part of cone-in-cone structure that has broken away from the main mass. Note circular pattern on top surface. From the Cretaceous Kiowa Formation. Photo by author.

are the result of submarine springs discharging carbonate-rich groundwater.



Fig. 3. Bed of cone-in-cone, Kiowa Formation. Note hammer for scale. Photo by author.

McBride and others, in studying sandstones with large concretions, note that formation of the cones is probably shallow (in terms of tens of meters) and most likely due to biogenic (coming from a living organism) processes.

Whatever the case, cone-in-cones are an interesting structure that deserve a place in everyone's rock and mineral collection. By the way, I am betting that you collected the specimen from the Early Cretaceous Kiowa Formation along the Smoky Hill River in Ellsworth County, Kansas. Am I correct?

References:

- Kansas Geological Survey, 2003. *Geology of the Kanopolis Lake Area: A Public Field Trip*. Open-file Report 2003-52.
- McBride, E. F., M. D. Picard, K. L. Milliken, 2003. *Calcite-cemented Concretions in Cretaceous Sandstone, Wyoming and Utah*, U.S.A. *Journal of Sedimentary Research*, v. 73, no. 3, p. 462-483.
- Phillips, P.L., T. S. White, B. J. Witzke, G. A. Ludvigson, R. L. Brenner, L. A. Gonzalez, J. P. Pope, 2005. *Significance of Cone-in-cone Structures in Marine Mudstones*. *Geological Society of America Abstracts with Programs*, Vol. 37, No. 2, p. 37.

SEPTEMBER PROGRAM

Calling all CSMS rock and mineral hounds. The September General Assembly Meeting will be devoted to "Show & Tell" of member finds during the last few months. Did you finally locate that great piece of barite from Hartsel—bring it. What about Tucson or Buena Vista? Get a fantastic buy for 5 bucks? Brag to the members. Tables will be provided for the Satellite groups. The Lap Group is responsible for treats, but maybe we could help them out with some goodies. Let's make it a really interesting meeting, and wow your friends while meeting our new members.

AFMS NEWS

SUMMARIZED W/COMMENTS BY THE EDITOR



The 2009 AFMS Convention was a big success in Billings, MT with over 3,000 in attendance including our Canadian rockhound friends. AFMS President, Joy Borne, reports they were "treated to outstanding speakers, wonderful slide programs, exciting competitive and non-competitive displays, and the warm hospitality that Montana has to offer."

A word about radioactive specimens from Ted Keith, AFMS Safety Chair: "...some of the more common radioactive minerals are: Uraninite, Torbernite, Autunite, and Gummite—all uranium containing species." Ted reports that radioactivity and fluorescence are somewhat related and cannot be detected by our 5 senses; you need a Geiger counter (available on eBay for \$20-\$60 or borrowed from local Civil Defense). Use common sense in handling radioactive specimens, and don't eat, drink, or smoke while handling these. Wash your hands after handling these minerals, and store them further away from your living areas. Additional information may be found at <www.hedgaard.com/Mineals/Groups/Radioactives.html>.

Jim Brace-Thompson, AFMS Jr. Activities Chair, re-issued "The 50 State Challenge" to get clubs involved with the Future Rockhounds of America (FRA) program; there are 20 states not participating. Colorado has many Pebble Pups and Juniors in the FRA program. The AFMS FRA program is intended to cultivate interest within the next generation of rockhounds by giving them a sense of belonging, both within their individual club and within their broader federation, with the long-term goal of sustaining our hobby well into the future.

The new 2009 Webmaster Contest had 45 websites entered. Contest Chair, Phyllis George, reported that a name change was approved for the 2010 contest—it will be the Website Contest because so many webmaster have no control over the content of their sites. Our neighbor, North Jeffco Gem & Mineral Club, came in at #5 of the 7 website announced at the AFMS convention. The 2010 contest rules, entry form, and guidelines will be available on the AFMS website in Sept.

The Bulletin Contest winners were also announced, and I'm very pleased to report that the **Pick&Pack** moved up to 2nd place in Large Bulletins this year! Awarded 2nd place in the Advanced Adult Articles was **Mike Nelson**, with 5th place going to **Steven Veach**. Membership Chair, **Bill Cain**, garnered 5th place in the Adult Article category, and **Terry Beh** received an Honorable Mention.

In Written Features, a new category this year, we did quite well with Honorable Mentions for **John Casto**, **Roger Pittman**, and **Mike Wheat**.

Congratulations to all you wonderful authors out there; we are very anxious to see how CSMS faired in the upcoming regional show in Roswell. Keep submitting those articles!

From John Wright, AFMS Conservations & Legislation Chair, comes the observation that our club members are not well informed on the important legislation that impacts our hobby. Three of the bills that sponsors are pushing for passage prior to the 2010 mid-term elections are: 1) Hardrock Mining and Reclamation Act, 2) Clean Water Restoration Act, and 3) Antiquities Act of 1906: Major Acts of Congress and Act 58 of 1967. AFMS and the American Land Access Association (ALAA) are working very hard to get the information out to clubs and to encourage our participation in contacting the legislators who vote on these bills. ALAA President, Shirley Leeson, said, "The AFMS has 633 societies with over 49,000 individual members. Currently ALAA has less than 100 individual members and less than 30 society members." We can make our voices heard by joining the ALAA (society memberships are only \$50/yr), by individually contacting our local BLM and Forest Service offices, and by becoming educated and involved on the bills that will be voted on by our congressmen and senators. More information is available on the web site <<http://amlands.org>>

RMFMS NEWS

SUMMARIZED W/COMMENTS BY THE EDITOR



RMFSM President Stan Nowak says the search continues for clubs to host the Federation Shows. Yam visited with Dr. Bob Carlson on this subject at the AMFM Show last month. Stan also asked for more RMFMS committee volunteers. Most of the current chairs have held the positions for many years and are in need of assistants to mentor. This is also true of State Director positions. Kaye Thompson serves on the Ribbons Committee, and Jack is a member of the Uniform Rules Committee. As the 2010 RMFMS Club Publication Chair, I will be assisting Linda Jaeger who currently holds the position in both the RMFMS and AFMS. Not to worry, the Pick&Pack will still be eligible for the Bulletin Contest.

Treasurer Gene Maggard reminds us that October 31st is the end of the RMFMS fiscal year and annual reports, dues, and liability insurance will be requested very soon. A small portion of every CSMS membership fee goes to RMFMS and AFMS membership; the modest liability premium to RMFMS is based on our total membership number and paid separately each year.

We are looking forward to a successful regional show on October 2-4 hosted by the High Chapparal Rockhounds of Roswell, NM. The Editors Breakfast, Delegates Meeting, and Annual Banquet will be held on Saturday at the Sally Port Inn.



CSMS heading for the top of Mt. Antero. Photo by B. Germano

PRESIDENT'S CORNER

BY RON YAMIOLOKOSKI, CSMS



What a couple of months! We had six field trips in July and August that included gold panning with our friends at the Gold Prospectors of Colorado and looking for topaz with our fellow rockhounds from the Lake George Gem & Mineral Club. There were two trips to our peridot claims, a trip to Gold Camp Road and, for the heartier souls, a trip to Mt. Antero. Thanks to **Dan Alfrey**, **Amanda Adkins**, and **Ray Berry** for joining me in leading these trips. I'm still working on adding a few more outings to what is already on our list.

We had our annual picnic on August 22nd and, although our group was not as large as last year, we had a great time sharing the pot luck specialties and talking about rocks and other stuff. We took the time while there to present WMMI Executive, **David Carroll**, with a check as our donation to support the on-going efforts of the Mining Museum. We also had the opportunity to meet and chat with **Michael Mitchell**, our 2009 Scholarship beneficiary. Since he was there, he was able to pick up his check before dashing up to Golden for the start of his senior year.

My wife Jean and I headed to Billings, MT this year to take in the AFMS Annual Show— a fun time where I got to meet some of our national officers, discuss issues shared by all of our members, and to pick up a few awards for the Pick&Pack and its contributors. The big one was that our Pick&Pack, edited by **Betty Cain**, placed second in the large newsletter category!!! Congratulations to Betty, and thank you to all who contribute to make our newsletter so great.

Speaking of shows, the planning for our December Show will be going into high gear starting in September. We have much to do, and we will need the help of the membership to make this show as great as those of the past. Please drop by the planning meeting at 6:30 PM on Thursday, September 17th (just before our monthly meeting) and see how you can help. **Francine Jampetero** did that in July and volunteered to help me co-chair this year's show.

While I'm on the subject of volunteers, the Public Relations Chair position has been filled thanks to **Susan Crain**. Susan will be helping out with advertising of our Annual Show, the Rock Fair, and spreading the word about our Pebble Pups and other activities. Thanks, Susan, for stepping up and helping CSMS. Two other new members,

Michael Christianson and **Ann Schmechel**, also agreed to work on the Public Relations Committee – thank you so much. If anyone wants to volunteer to help out in any area of the Club, please contact me or any member of the Board.

With the fall months comes the time that we will be looking for new officers for CSMS. This is an opportunity to serve and to work towards making the club better. I will be appointing a Nominating Committee at the next General Assembly meeting, so please consider whether or not you have the time and the desire to be an officer of your club or would like to chair one of the many groups or positions available. It is a great way to meet and for you to get to know other members if you are new to the club; for those who have been around for a while, it is an opportunity to give back a little for the benefits that you have received by being a member of CSMS.

Mike Nelson tells me that our September meeting will be a time for our Satellite Groups to showcase their activities. If you do not belong to one of groups already, this is a great way to learn and to get to know your fellow members better. The leaderless Lapidary Group is supposed to provide the snacks for the evening, so if you participated in the Lapidary Group in the past year or so, please bring a snack.

ROCKHOUNDING THE HIGH COUNTRY

BY BOB GERMANO, CSMS

The Mt. Antero field trip, lead by **Amanda Adkins**, was an experience not to be missed. There were breath taking views in all directions, and aquamarine and clear quartz crystals to be collected. Mt. Antero is located just south of Buena Vista, on the way to St Elmo and Tin Cup pass. One can ascend Mt. Antero via hiking, biking, ATVs, or any 4wd vehicle in about one hour (proven by Amanda significant other, **DJ**, driving a 4WD Chevy Suburban) . It's not a difficult trip, but it is



The CSMS Aquamarine hunters at 13,700'; top of Mt. Antero to the right. Photo by author.

bumpy and does present a challenge from time to time. Our destination was a sub-peak of Mt. Antero, elevation 13,700'. Mother Nature obviously concurred with the weekend Amanda selected for the field trip as she dished up excellent weather conditions of blue skies with minimal white clouds, lots of sunshine, little to no wind, T-Shirt temps for most of the day, and absolutely no threat of rain. All in all everyone had a great day and most found specimens.

Amanda and DJ put a lot of effort into making this field trip a success for everyone. They both spent much of their time helping others and suggesting areas to search for



Collecting the elusive Aquamarine crystals. Photos by author.



crystals. The only negative for the day was one flat tire. Thanks, Amanda and DJ, for a great field trip.

DOROTHY ATLEE

Dorothy M. Atlee, age 83, passed away July 15, 2009 peacefully at home. She was a homemaker and a resident of Colorado Springs, Colorado since 1981.

Dorothy Marion DeBree was born November 6, 1925 in Helena, MT. Dorothy was married to her love, Luis S. Atlee, in August 1948.

Dorothy was an active Life Member of the Colorado Springs Mineralogical Society. She was an avid mineral collector, micro-mount exhibitor, and past editor for the club newsletter. *(Editor's Note: Dorothy's encouragement and appreciation of the effort required to get the Pick&Pack published each month has kept me going through some of the harder issues. I shall miss her emails.)*



Miss Dorothy hosted the Micromount Show & Tell table at a CSMS General Assembly Meeting. Photo by B. Cain

Luis and Dorothy founded the committee to construct and erect the bronze sculpture of "The Prospector" now displayed at the corner of 21st Avenue and Highway 24 in Old Colorado City to honor the state's mining history.

A celebration of life was held in Dorothy's honor 4:30 PM, Saturday, July 18, 2009 at the Shrine of Remembrance "America the Beautiful" Chapel. A reception followed at the Olympian Plaza Reception and Event Center. Internment was private at the Shrine of Remembrance Chapel Mausoleum.

CSMS will honor Dorothy by providing a book in her memory to the Penrose Library.

THE GENERALS REACH FOR THE CLOUDS

BY MIKE NELSON, CSMS

The State of Colorado seems to have a number of place localities named after military personnel, especially those who served in the U. S. Civil War and/or the post-war battles with the local Native American population. One of the more famous, at least in the annals of peak bagging Colorado 14'ers, is Mt. Sherman located in the Mosquito Range west of Fairplay and east of Leadville. At 14,036' Mt. Sherman ranks number 44 among Colorado's 54 highest peaks. On any given day in the summer climbing season, but especially weekends, the trail to the summit has many hikers trudging upward. Although a strenuous climb, many consider the mountain as one of the easier 14'ers to bag. Easy or not, I was still out of breath upon reaching the summit!

Mt. Sherman is named for William Tecumseh Sherman (1820-1891), a Union general during the U. S. Civil War and who later (1865) was placed in charge of the Military Division of Missouri that included all lands west of the Mississippi River (except the west coast). His major job was to provide troops that protected the railroads, both operating and being constructed, from Native Americans concerned about encroachment upon their lands. In 1869 he succeeded newly elected President U. S. Grant as Commanding General of the United States Army.

Approximately 1.3 miles southwest of Mt. Sherman is the "not so famous" Mt. Sheridan checking in at 13,748' (number 126th among Colorado's peaks). However, being "not so famous" certainly has its advantages. On the day that I summited no other hiker was observed on the trail while my binocs spotted a steady stream of hikers heading up Mt. Sherman (*Fig. 1*). The flowing adrenaline from this wilderness feeling was exhilarating.



Fig. 1. Summit of Mt. Sheridan (13,748') looking west across the rift valley of the Arkansas River with the Sawatch Range in the distance.

Mt. Sheridan was named after General Philip Sheridan (1831-1888), a Civil War hero for the Union, and later active in the "Indian Wars" of the West, including Colorado. Serving in the southern states directly after the Civil War, Sheridan moved west in 1867 as Sherman appointed him commander of the Department of Missouri succeeding the unpopular General Winfield S. Hancock. As such, Sheridan was headquartered at Fort Leavenworth, Kansas and later Chicago, Illinois but often ventured west into the field. He played a direct part in the Battle of Beecher Island (Battle of the Arikaree) that took place near Wray, Colorado in 1868. As commanding General, he authorized the formation of the "Forsyth Scouts" (civilian frontiersmen) as a fast moving "ranger unit" designed to help combat hostiles. Col. George Forsyth recruited 50+ men who from September 17-25, 1868 holed up on a small island or sand bar in the Arikaree Fork of the Republican River surrounded by a few hundred Native Americans, mostly Northern Cheyennes. After the death of one of their most respected fighters, Roman Nose, the hostiles begin to dissipate and disappeared completely upon the arrival of Capt. Louis Carpenter and Company H of the U. S. 10th Cavalry. Beecher Island has been of great per-

sonal interest to me since almost all of the Scouts were recruited from within a small radius of my hometown in central Kansas. In fact, I am related, by marriage on the maternal side, to two of the Scouts.

The mining districts associated with Mts. Sheridan and Sherman include Horse-shoe and Peerless to the south (see *Pick&Pack* Oct. 2008), Sacramento and Fourmile to the east, and the greater Alma District to the north. These districts are located in the Mosquito Range, one of the large Laramide features associated with uplift of the Rocky Mountains. The Mosquito Range is arbitrarily separated from the Ten-mile Range to the north at the Continental Divide running between Fremont Pass and Hoosier Pass. The southern part of the Range, a series of low ridges, ends near the Arkansas River at Salida. The western boundary of the Range has some spectacular structural geology in the form of the bounding Mosquito and Weston Faults. The eastern boundary is less sharp where east-sloping Paleozoic rocks begin to cover the Precambrian basement rocks and in turn are covered by the basin-fill rocks of South Park.

Standing on the summit of Mts. Sheridan or Sherman one looks west across the valley of the Arkansas River toward the Leadville mining areas and the mighty Sawatch Range (*Fig. 1*) and wonders if perhaps the districts are "related in some way". Perhaps they are.

The Sawatch Range is also a large Laramide (refers to a crustal shortening, compressional, mountain building event in the late Cretaceous and early Tertiary, ~72-~50 my) anticlinal (concave upward, see *Pick&Pack*, July 2009) structure that at one time included the Mosquito Range east across the Arkansas River. During the late Tertiary, ~10 my, a crustal extension event (stretching) culminated in a series of block faulted mountains and basins in the west-central US (for example, the Basin and Range Province of Utah and Nevada). The major "basin and range" topographic and structural feature in Colorado is the Rio Grande Rift Zone that trends from near El Paso, Texas to near Kremmling, Colorado. The Rio Grande River in New Mexico and Colorado, and the Upper Arkansas and Blue rivers in Colorado, all flow in grabens created in the fault system. A graben is a down-dropped valley created by parallel faults on either side of the valley (see *Pick&Pack* Feb. 2009). The rift system between Mts. Sherman/Sheridan and Leadville effectively split the Sawatch Anticline into two segments, the Sawatch Range and the Mosquito Range, separated by the Arkansas River. This faulting (for example, the Mosquito and Weston Faults) helped create the



Fig. 2. Hilltop Mine near Mt. Sheridan. Photo by author.

spectacular topographic relief between the river valley and the mountains—Sherman and Sheridan on the east (Mosquito) and Mts. Elbert and Massive on the west (Sawatch) - simply seem to rise straight up out of the valley.

The mining associated with Mts. Sheridan and Sherman has an interesting and colorful history. The major producing mines of the region, including the Sherman, Dauntless, Last Chance, and Hilltop (Fig. 2), seem to produce from old caves and sinkholes (solution channels or paleokarst) in the Leadville Limestone - and perhaps a few other limy formations. The Sherman Mine, immediately west on the flank of Mt. Sherman at the base of the Iowa Amphitheater (head of Iowa Gulch), started in 1968, closed in 1970, reopened in 1975, closed in 1982 and produced 10 million oz. of silver (Mineral Data, 2009). Maslyn (1996) has mapped three different cave systems and 34 sinkholes at the Sherman Mine (Fig. 3). A bonus collectable mineral from the Sherman is golden barite (Fig.4).

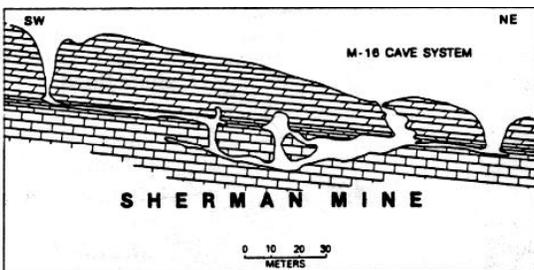


Fig. 3. Paleokarst (solution cavities) in the Leadville Limestone at the Sherman Mine (from Tschauder and others, 1990). Base and precious metal bodies follow these solution channels and include silver-bearing lead ore and sphalerite (zinc ore).

The Hilltop Mine is one of the more recognizable abandoned mines in the region since some buildings remain (Fig. 2) and hikers on the way to either Mt. Sheridan or Sherman pass directly by the site (~13,000' in elevation). The Hilltop also produces from solution channels and commenced operations in 1887. Published reports (McConnell, 1966) describe a room in the Hilltop termed the "Ice Palace" for its glittering walls covered by ores of silver, lead, and zinc. That must have been a fantastic chamber.

Although the Hilltop seemed to be a

steady producer, the repeal of the Sherman Silver Act in 1893 (named for John Sherman, Ohio Senator) essentially killed the production of silver in Colorado. There is a fascinating U. S. history of silver (and gold) in the 1800's (beyond the scope of this paper) but the Sherman Silver Purchase Act was put into law in 1890 and stipulated that the U. S. government was to purchase about 4.5 million ounces of raw silver every month. This law was a great boon to western mining companies that had a vast supply of silver at their disposal, both in storage and in the ground, and western farmers who had accumulated large debts (mostly to due to bad luck and droughts) and thought the law would stimulate the economy, combat deflation, create inflation, and then drop the dollar in value (so the debts could be paid in cheaper dollars - and I thought "voodoo economics" was invented in 1980). Well, the entire scheme backfired and people begin to buy gold rather than holding silver and started to deplete the country's gold reserves. In 1893 President Grover Cleveland repealed the Act and silver was on its way out and most mines in Colorado suffered.

It is interesting to note that although the Act was repealed in 1893, the debate on the national scene went on for many years. History books in "my era" (a long time ago) spent several pages talking about the "Goldbugs" of the Republicans and Wm. McKinley (a gold standard) vs. the "Silverites" of the Populists and Democrats and Wm. Jennings Bryan (free silver) in the presidential election of 1896. The free silver issue really was not settled until the Federal Reserve System was established in 1913. But, hold on. Many of us can remember how two brothers from Texas tried to corner the silver market in the 1970's and early 1980's. In the early 1970's the price of silver on the commodities market was less than \$2 per oz. By about 1980 the brothers owned 50% of the disposable silver and prices artificially soared to over \$50 an oz. Silver mines all over the west were retooling and share prices of silver mining companies were high (at least out of my reach as a small time investor)! But then, the bubble burst as the Federal Reserve "came to the rescue" and the price of silver collapsed (as did the stock market; remember the prime rate of 22% in 1980?).



Fig. 4. Double terminated barite crystal collected from the Sherman Mine. Photo courtesy of, and © by, Fabre Minerals at <<http://www.fabreminerals.com/specimens/US-usa-mineral-specimens.php>>

Associated with the mines were the camps and stamp mills to house workers and process the ore. One such settlement was Horseshoe at an elevation of ~10,600 on Fourmile Creek west of Fairplay. The South Park Smelting and Reduction Works built a processor in 1879 that could handle about 10 tons of ore per day (U. S. Forest Service, 2009) from mines on Horseshoe Mountain and Peerless Mountain (see Pick&Pack Oct. 2008) adjacent to Mt. Sheridan. Crofutt (1881) described Horseshoe as having a population of "...300; in the summer months 800.... It has two stores, two hotels, one smelter, and one sawmill. The minerals in the vicinity are very rich." I have visited the town site and noted a few holes that evidently were the sites of buildings, at least two excavations that pretty much would fit a privy, and a couple of holes containing rusted cans and broken bottles.

Perhaps a more interesting town site is Leavick further up Fourmile at an elevation of ~11,250'. A processing mill was constructed in the 1880's to process ore from the Last Chance Mine. In 1892 a Mr. Leavick from Leadville bought the Hilltop Mine and the processing plant. Amazingly he also constructed a tramway

from the Hilltop Mine to the mill at Leavick (1¾ miles). Evidently quite the promoter, he somehow got the Denver, South Park, and Hilltop Railroad to lay tracks from near Fairplay to the Leavick mill. Production of lead, zinc, and silver from the Last Chance, Hilltop, and Dauntless continued, albeit sporadically, until the railroad ceased operations in 1923. Since the 1920's the mines have been periodically worked without a great deal of success.

The remaining mill at Leavick is on private property and inaccessible; however, Park County Road 18 runs within a few feet of the structure. The Hilltop, Dauntless and Last Chance are on private property. Part of Peerless Mountain is under claim. There are several dumps that appear to be on USFS land in the area, and I have collected some really nice specimens of limestone with crystals of quartz and calcite and other unidentified minerals. I believe that perhaps some other CSMS members may have collected barite from the Sherman Mine area. For the thrill of hiking consider a two day event and capture Sherman and Sheridan, Gemini Peak (13,951'), Peerless Mountain (13,337'), and Horseshoe Mountain (13,898'). However, if the rarified air of the mountains do not fit your lifestyle you could consider visiting Sheridan Lake, a large playa, out in Kiowa County (Fig. 5)!



Fig. 5. Sheridan Lake, a playa on the High Plains in Kiowa County, CO. Photo by author.

"You shall not press down upon the brow of labour this crown of thorns [the gold standard], you shall not crucify mankind upon a cross of gold." W. Jennings Bryan

References cited:

- Crofutt, G. A., 1881, *Grip-Sack Guide of Colorado: The Overland Publishing Company, Omaha.*
- Maslyn, R. M., 1996, *Mineralized Late-Mississippian Paleokarst Features and Paleogeography in the Leadville, Colorado Area*, in, *The Caves and Karst of Colorado: National Spenological Society 1996 Convention Guidebook*, p. 136-143.
- McConnell, V., 1966, *Bayou Salado: Sage Books, Denver.*
- Mineral Data, retrieved 2009: <http://www.mindat.org/loc-5991.html>
- Tschauder, P- J., Landis, G. P. and Noyes, R. R., 1990, *Late Mississippian Karst Caves and Bi-Ag-Pb-Zn Mineralization in Central Colorado: Part I. Geologic Framework, Mineralogy, and Cave Morphology*, in, Beaty, D. W., Landis, G. P., and Thompson, T. B., eds., *Carbonate-hosted sulfide deposits of the central Colorado mineral belt: Economic geology Monograph 7*, 308-338.
- U. S. Forest Service, retrieved 2009, *Lode Mining, A Hard Living from the Hard Rock*: <http://www.fs.fed.us/r2/psicc/sopa/autohorse.shtml>

DID YOU KNOW . . .

- Life Members and Lifetime Achievement Award recipients **Art and Helena Ackley** will be celebrating 65 years of marriage on October 4th.
- Art Ackley helped develop the Norton Bomb Sight during WWII using quartz crystal.

SHOTS AT THE PICNIC

PHOTOS BY FRANK ROSENBERG

Scholarship winner, Michael Mitchell, receives the CSMS check from Mike Nelson



Yam presents David Carroll with our annual WMMI contribution check



The Pacific Rim food theme generated a lot of Asian and Hawaiian dishes for the food table with a little Kentucky on the side. Some of us kept going back in search of the "ring of fire"



Jack & Kaye Thompson seemed to enjoy themselves at the picnic



Junior member, Khya Prewitt, held her own against the master, Chuck Webb, for a short while with David Carroll's tutoring

A QUICK LOOK AT VANADINITE

BY AARON HENDRICKS, CSMS PEBBLE PUP

Vanadinite is one of my favorite minerals. I chose to write about it because it is so cool looking. When I decided to become a geologist, my mom helped me join a rockhound group on Yahoo. That's when a gentleman from Alabama said he would send me some samples. On July 7, 2009 we got the box. I was so excited to open it up; and there it was, a piece of Vanadinite!

My mom and I cataloged it into my collection. Then I looked at it with my loupe lens. I like how it looks—as if there are a thousand giant crystals on it. I also love the reddish color. After observing the specimen we put it in a display, and I set out to learn more about the mineral.



A close-up view of a vanadinite specimen from Morocco. Photo date 2007, © by A. Hendricks. From the A. Hendricks collection.

Most of my information came from a book called *Simon & Schuster's Guide to Rocks and Minerals* and online sources. The specimen was labeled with a tag stating it was from Mibladen, Morocco. Morocco is well-known for its fossils and minerals. Mibladen is one of the world's top producers of Vanadinite. I'm so grateful to own a piece for myself.

Vanadinite is a lead mineral colored by vanadium and is generally red, brown, or yellowish in color. It is part of a series with two other minerals; they are pyromorphite ($Pb_5(VO_4)_3Cl$) and mimetite ($Pb_5(AsO_4)_3Cl$). Vanadinite is translucent so you can see light through it but not objects. The Moh's hardness for Vanadinite is 2.75-3.00 (harder than gypsum and softer than fluorite), and its luster is adamantine (brilliant like diamond). The crystals are usually hexagonal prisms but often can be skeletal or cavernous. Its streak color is yellowish and has a brittle uneven fracture.

My favorite thing about this mineral is the fact that it is fusible. That means it can be fused or melted to another material through heat or pressure. Someday I'd like to melt some of the crystals and make a piece of jewelry even though it's mainly used in industrial building and chemicals.

If you are reading this and have never held or viewed a real live sample of this mineral, you need to. I believe it is such an interesting thing to look at and observe. This is one of the minerals that sparked my interests and made me want to discover more about minerals.

About the author:

- Aaron Hendricks is a 10-year-old future geologist.
- He lives in Yukon, OK and is active in CSMS via the Internet.
- He is participating in the Pebble Pups program and is earning AFMS FRA merit badges.



Photo used with permission of author

WMMI HAPPENINGS

Sept. 17, 7:00 pm

Heritage Lecture Series

To continue the 150th anniversary of the Colorado Gold Rush celebration, guest speaker Dr. Laurence Jankowski will discuss and show his film "Gold in Colorado". Heritage lectures are free to the public, reservations are suggested <RSVP@wmmi.org> or call 719-488-0880. Museum located at 225 North Gate Blvd. (I-25 Exit 156 A) in Colorado Springs. <www.wmmi.org>



Sept. 24 - Dec 31

William Henry Jackson - Special Exhibit Opening Reception - Sept. 4, 5:00 pm

Please join the museum for an exhibit of William Henry Jackson's images as reproduced in "Steam and Steel across the Great Divide." These magnificent prints are from the original old glass plates kept by the Western History Section of the Denver Public Library. Each will explore photography's multiple roles as art, promotion, and documentation of the Denver and Rio Grande Railroad. Please join us at the opening reception on Thursday, September 24, 2009 at 5:00 pm. The exhibit will run until December 31, 2009.

Sept. 26, 1:00 p.m. - 2:30 pm

WMMI Workshop

The WMMI introduces new quarterly workshops. This lesson will focus on Halloween make-up - techniques, ingredients, and application. Audience participation is welcomed. Admission \$10 per person. <RSVP@wmmi.org> or call 719-488-0880.

October:

Haunted Mines

Oct 1-31 - Haunted MINES! Don't miss this terrifying adventure. Each year the Haunt gets bigger and better! All proceeds from the Haunted Mines are donated to the Western Museum of Mining & Industry. Visit <www,hauntedmines.org> for ticketing and hours of operation.

Oct. 10, 9:00 am—3:00 pm

Family Exploration Day

The focus of this Family Exploration Day is the Industrial Revolution. Machines of this era, how they were created, and what makes them work. Activities will focus on how physics are applied to basic mechanics. Customary admissions apply. Reservations requested: <RSVP@wmmi.org> or call 719-488-0880.

FROM DIAMOND DAN

Mr. Russ Behnke is a mineral dealer and collector from Meriden, CT. He has field collected minerals since his childhood when he would go out collecting with his father. He has put together a beautiful book of his life in mineral collecting called *Treasured Minerals*. It has not been printed. However, you can download a **free** copy as a PDF from his website: <http://www.russbehnke.com/book.html>.

In his own words, "I can hope to have the book in 100,000 computers. So perhaps that is a better way to go than print and having perhaps only 1500 copies out there. Free may be the way of the future."

Colorado Springs Mineralogical Society



Youth Program

2009 – 2010

YOUNG MEMBERS of the Colorado Springs Mineralogical Society, generally under age 18, are invited to attend interesting workshops that teach about rocks, minerals, fossils, and related topics. These sessions run before the business portion of the club's meeting and the evening's program. The Juniors (age 12-18) meet from 5:15 pm to 6:15 pm; the Pebble Pups (age 7-11) meet from 6:30 to 7:15 pm.

Meeting Month	Subject Area	Topics
September	Asteroids, Meteors and Comets	How has the discovery of giant impact craters changed our understanding of Earth's history? We will look at evidence of repeated asteroid and comet collisions with the Earth. Igneous rocks will be the study specimen for this month. MB
October	The Dangerous Earth: Geologic Hazards	Students will explore the geologic processes behind major natural hazards: earthquakes, volcanoes, landslides, mudslides, floods, and hurricanes. During class there will be an exciting exploration of how Earth processes influence our lives on a daily basis. Metamorphic rocks will be the study specimen for this month. MB
November	Geological Time	We will review geologic time and discover the secrets of past life and events. Sedimentary rocks will be the study specimen for this month.
December	Ice Ages	Colorado's Ice Age will be studied. We will look at animals of the Ice Age and the Clovis people who swept across Colorado and North America. MB
February	Building a Rock Collection part 1	Pebble Pups and juniors will learn to be a "collector" -- not just an accumulator and learn how to get serious with their collection, the importance of labels, sizes of collectable minerals, trimming specimens, cleaning minerals, and displaying minerals The mineral for February study is amethyst.
March	Building a Rock Collection part 2	Studies from February are continued on building a collection. Labeling and displaying a collection will be considered.
April	Field Methods for Collecting Rocks, Minerals, and Fossils	We will study how to identify rocks, minerals, and fossils in the field and what equipment that is needed. We will review the use of field equipment.
May	Fossils: Windows to the Past	Fossils reveal prehistoric worlds and the plants and animals from these lost worlds. How to hunt for fossils and the proper way to collect them in the field will be demonstrated. A fossil will be the study specimen for this month. MB
June	Florissant Fossil Beds	A virtual field trip to the Florissant Fossil Beds National Monument. We will learn about the fossilization of giant redwood trees, insects, flowers, and leaves. The unique processes that created these amazing fossils will be explored. A fossil will be the study specimen for this month.
July	Gemstones, Legends, and Lore	Gemstones are fascinating: their colors, properties, myths, and legends are diverse and amazing. Folklore about stones has been revered and honored for centuries in all cultures. The Pebble Pups will explore anniversary stones, birthstones, fabled gemstones, and gems in religion. Rubies will be the study specimen for February. MB

Field Trips 2009-2010	
Western Museum of Mining and Industry	Red Rock Canyon Open Space
Garden of the Gods	Florissant Fossil Beds National Monument

The CSMS offers a total of 15 merit badges and certificates of achievement for the Pebble Pup and Junior group. Each session where the merit badges are earned have "MB" in the topic discussion column. The merit badge program consists of a Future Rockhounds of America Membership badge, 15 merit badges (Rocks & Minerals, Earth Resources, Fossils, Lapidary Arts, Collecting, Showmanship, Communication, Field Trips, Leadership, Earth Processes, Earth in Space, Gemstone Lore & Legend, Stone Age Tools & Art, Gold Panning & Prospecting, and Rocking on the Computer), and a "Rockhound Badge" for Pebble Pups who earn 6 of the 15 merit badges. There are 85 activities to choose from, or about a half dozen activities per badge, with Pebble Pups required to complete only 3 activities to earn any particular badge.

Pebble Pups and Juniors will work on individual rock, mineral, and fossil collections during each session for entry in the club's show in 2009. The group will also create related artwork and short articles for the newsletter. The scientific method will be covered, participation in science fairs is encouraged, laboratory methods will be demonstrated, and a variety of interesting topics will be covered. There will be at least 2 field trips scheduled during the year. The minimum age for the Pebble Pups program is 2nd grade. Pebble Pups and Juniors must register with the youth program leader.

Youth Program Leader: Steven Veatch, Steven.Veatch@gmail.com
 Assistants: Roger Pittman and Lori Hutchinson

Editor's Note: CSMS has for several years had the privilege of providing a scholarship to the Friends of the Florissant Fossil Beds Summer Intern program in Florissant, CO. The following letter is from this year's recipient. We can be very proud of our contribution to the preservation, discoveries, and scientific findings of this amazing site.

Dear Friends of the Florissant Fossil Beds:

Thank you for sponsoring the Geocorp America internship position at Florissant Fossil Beds National Monument, through which I was able to experience a summer at this wonderful monument. I have desired to be a paleontologist since elementary school, and this summer has provided me with invaluable work experience in the field of paleontology. This summer I worked on two major projects, the reopening of Samuel Scudder's excavation site and the inventory and monitoring of many of the fossil sites within the monument.

The site that was excavated this summer is speculated to be the site where Charlotte Hill found several of her most beautiful specimens, including the butterfly *Prodryas persephone*, and where Samuel Scudder did some of his collecting. Following their legacy, our excavation uncovered two *Florissantia sperii* flowers (one very well preserved), a beautifully preserved wasp, a few spiders, and several other amazing leaves and insects. Aside from the rare and spectacular finds, we found many other leaves and insects that will be used to conduct diversity analyses to estimate exactly how diverse the plants and insects of the late Eocene were. This research is very important in understanding the impact of the global cooling at the end of the Eocene. By comparing the diversity of Florissant with other similar fossil sites in the late Eocene and Early Oligocene, scientists may be able to better understand the dynamics and impacts of climate change.

I also worked on the inventory and monitoring of fossil sites within the park, including both shale exposures and petrified stumps. I photographed sites from specific locations and angles and also noted changing rates of erosion or signs of theft. The data and photographs collected can then be used to observe the changes of a site over time. As a fossil park, it is important to maintain and protect the fossil sites, and through inventory and monitoring, the monument can learn which sites must be better protected for the benefit of future generations.

This summer has been a truly wonderful experience. I have learned a lot about both paleontology and the National Park Service, and I wanted to express my sincere gratitude for making this opportunity possible for me.

Sincerely,

Jamie Fearon
Carol Stream, IL 60188



CLAIM JUMPERS AND STOLEN POCKET

EMAIL FROM JOE DORRIS

Hello Folks,

Between evening 16 July and morning 17 July thieves dug two pockets on the Smoky Hawk mine. The specimens are large smokies up to 4 or possibly 5 inches with tapering terminations and 2 to 3 inch amazonites. There may be some combos. The pockets were discovered late on the 16th and inspected for contents. We were saving them for filming by Blue Cap Productions. The amazonites are typical Smoky Hawk "green", and the smokies were satin luster. It is possible there were only a few good pieces as the two pockets were relatively small.

I believe there were two diggers and that they walked in. They may attempt to contact you with these specimens for sale. They may or may not be cleaned by the time they try to market them.

We do have some pieces from the pockets and can make a positive identification. It is possible we also have some "fits" to the stolen pieces.

I would appreciate and welcome any information regarding this theft or even if you have ideas as to who might be in the Crystal Creek area actively highgrading claims.

PERIDOT INFO EXCERPTS FROM QUARRY QUIPS 8/09

Peridot is gemstone-quality olivine, a mineral that is very abundant but not usually found in high enough quality to be used as gemstones. The name peridot was derived from either the Greek "peridona," (richness) or the Arabic "faridat" (gem). Peridot is also known as chrysolite, Greek for "gold stone."

When Hawaiian natives first discovered peridot in the black sands of volcanoes, they believed the clear, green gemstones were the tears of the volcano goddess, Pele. Egyptian jewelry featured peridot, "the gem of the sun," as early as two centuries B.C., believing it connected them to their goddess, Isis. Peridots are said to have been a favorite gemstone of Egypt's most famous queen, Cleopatra.

The Romans admired the stone for its constant color which does not change in artificial light, calling it "emerald of the evening." Peridot is found in Medieval Christian churches and shrines and was also popular during Europe's baroque period of the 17th Century.

(The next time you visit the CSMS peridot claim, you might want to think about how much these gemstones were cherished in the past.)

Photo from <<http://en.wikipedia.org/wiki/Peridot>>



UPCOMING SHOWS

Aug 29-Sep 7

Agate Rendezvous, Apache Creek, NM, Yonis Lone Eagle rockymountainrockhounds@yahoo.com

Sep 16-18

Denver Gem & Mineral Show, www.DenverMineralShow.com 451 E. 58th Ave & Washington, Denver

Sept 18-19

The Bead Renaissance Show, 15500 E. 40th, Crowne Plaza Hotel, Denver, www.ApplegateLapidary.com

Sept 18-20

Colorado Fossil Expo, 58th & Washington, Denver, www.mzexpos.com

Oct 2-4

RMFMS Show & Convention, Roswell, NM, www.rmfm.org

Oct 10-11

Sierra Vista, AZ Huachuca Gem, Mineral & Jewelry Show, Ingrid, 520-459-3718

Nov 14-15

New Mexico 30th Mineral Symposium, Socorro, NM; Dr. Virgil Lueth, vwlueth@mtu.edu

Dec 5-6

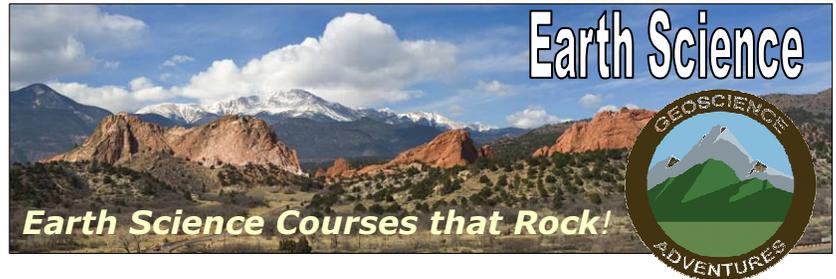
46th Annual Pikes Peak Gem & Mineral Show, Phil Long Expo, Colorado Springs, CO; Ron Yamiolkoski, Ron.Yamiolkoski@aecom.com, 719-488-5526, Francine Jampetero, francijam@gmail.com, 719-634-4880

TIPS & TIDBITS . . .

Keep Silver from Tarnishing—Tarnish is caused by sulfur gases in the air. Chalk is a natural absorber of sulfur. So, place sticks of blackboard chalk in your cases, jewelry boxes, jewelry drawer, or just around your silver jewelry (from <http://www.rocks4u.com, via Quarry Quips, 6/09).

Stroke Symptoms—Simple things you can do if you suspect someone may be having a stroke: Ask them to smile; Ask them to say a simple sentence (It is a sunny day); Ask them to raise both arms; Ask them to stick out their tongue. If any of these activities are awkward, call 911 immediately. You could save their life! (from *Beehive Buzzer*, 7/09).

New Book in the CSMS Library—We have obtained a copy of *The World's Greatest Gold Camp, An Introduction to the History of the Cripple Creek & Victor Mining District*, co-authored by our own Steven Veatch. Contact the Librarians to check it out.



Field Studies in Paleontology: Exploring the Shelf Road: From Cripple Creek to Garden Park, Colorado

October 3, 2009

Time: 8:30 to 5:30 pm

Sponsor: Cripple Creek Park and Recreation

Cost: \$69

Call 719-689-3514 to register at Cripple Creek Park and Recreation.

Optional Tuition fee: \$35 for optional 0.5 semester graduate credit from the Colorado School of Mines.

Starting from Cripple Creek, this field class offers an unsurpassed opportunity to explore the geological and paleontological wonders along the Shelf Road. Participants will explore the old wagon roads used to haul dinosaur bones from Garden Park to Cañon City, visit a dinosaur quarry, and explore nearby dinosaur tracks. All transportation is included. This course is for all ages.



Photo courtesy of Steven Veatch

Dinosaurs: A Concise Natural History

October 10, 2009

Time: 9:00 to 5:45 pm

Sponsor: Rocky Mountain Dinosaur Resource Center

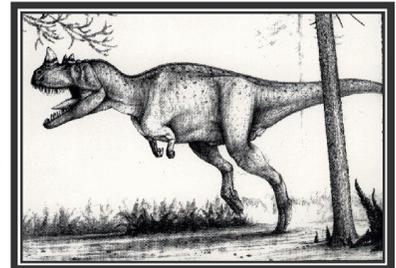
Cost: \$69

Call 719-686-1820 to register at the Rocky Mountain Dinosaur Resource Center.

Tuition fee: \$35 for optional 0.5 semester graduate credit from the Colorado School of Mines.

This seminar examines the life and times of dinosaurs: their kinds, ecology, evolution, life habits, and ultimate extinction. Concepts of paleontology, needed to understand dinosaurs and the other animals and plants that populated the Mesozoic world, will be reviewed. How a paleontologist works in the field and laboratory will be explored. This course is for all ages!

Lunch is provided at the Rocky Mountain Dinosaur Resource Center (RMDRC). Although this seminar is for everyone interested in dinosaurs and the Mesozoic world, teachers taking this course, will benefit from the content that will arouse the imagination of students and inspire them to deeper and meaningful investigations. A tour of the RMDRC and a resource kit for teachers is included. While paleontology informs us about remarkable patterns of change in the past and some of the changes that are taking place today, it also helps us understand how these changes may shape our future world. Join Steven Veatch and his team in exploring the lost worlds where dinosaurs once ruled supreme.



Steven Veatch will be a two-time guest speaker at the 42nd Annual Denver Gem and Mineral Show, September 18 - 20, 2009. The theme for this year's show is: "Fossils - Windows to the Past". Steve will speak Saturday, September 19 at 1 pm about the remarkable mammoth fossil found in Florissant, Colorado. Steve will present the detailed story of Florissant's mammoth. The Florissant fossil beds are world renowned for the fossil plants and insects from the paper-thin shales of the Eocene Florissant Formation. Fossils from the overlying Quaternary sediments are rare.

On Sunday, September 20 at 1 pm Steve will present the Princeton Scientific Expedition of 1877 story. Join Steve and the Princeton Scientific Expedition of 1877 and experience the adventures and discoveries made in Colorado by a group of college students. Learn about fabulous fossil discoveries and the unsung role of a local pioneer woman in the paleontological bonanza near Florissant! Mark Young, a ranger from Eleven Mile State Park, recently helped Steve in genealogical research to find out what happened to the student party after they grew up and embarked on their careers.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SEPTEMBER 2009 CSMS CALENDAR		1	2	3 7p Board Meeting	4	5
6	7 Labor Day	8 7p Micromount Group	9	10	11 Patriot Day 7:30p Crystal Group	12 Peridot Field Trip
13	14	15 Hispanic Heritage Month Begins 7p Fossil Group	16	17 5:15p Junior Mtg 6:30p Pebble Pups 6:30p Show Mtg 7:30p Gen Assembly	18	19 Rosh Hashanah 1st Day 12n—Jewelry Group
20	21	22 Autumn Begins	23	24 7p Faceting Group	25	26 Topaz Field Trip
27	28 Yom Kippur	29 7:30p Camera Group	30	10/1 7p Board Meeting	10/2 RMFMS Convention—Roswell	10/3

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS		
Sep—Lapidary	Oct—Micromounts	Nov—Board
	Dec—All	

CSMS FIELD TRIPS	
Sep 12	Peridot Claim, Ron.Yamiolkoski@aecom.com
Sep 26	Topaz Claim, Ron.Yamiolkoski@aecom.com

Area Code

ELECTED EXECUTIVE COMMITTEE MEMBERS			
PRESIDENT	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
VICE PRESIDENT	Mike Nelson	522-1608	csrockguy@yahoo.com
SECRETARY	Bob Germano	487-8945	gliders1@hotmail.com
TREASURER	Ann Proctor	684-9010	annmgmt@msn.com
MANAGING EDITOR	Betty Cain	634-8205	bettycain3@comcast.net
MEMBERSHIP SECRETARY	Bill Cain	634-8205	billcain4@comcast.net
MEMBER-AT-LARGE	Laura Canini	260-6007	caninid@comcast.net
MEMBER-AT-LARGE	Charles Webb	392-7214	(none)
PAST PRESIDENT	Drew Malin	531-7594	advanceone@comcast.net
APPOINTED COMMITTEES			
FIELD TRIP CHAIR	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
HISTORIAN	Brenda Hawley	633-5702	bghsprings@hotmail.com
LIBRARIANS	Frank & Ellie Rosenberg	594-0948	emr80918@yahoo.com
PUBLICITY CHAIR	Susan Crain	687-8598	mountaindreamer8@aol.com
ROCK FAIR CHAIR	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
SHOW CO-CHAIR	Francine Jampetero	634-4880	francijam@gmail.com
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com
VOLUNTEER SATELLITE GROUPS			
CAMERA GROUP	Roger Pittman	683-2603	rpittman@directv.com
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net
FACETING GROUP	Dave Wilson	635-7891	dlwilson@pcisys.net
FOSSIL GROUP	Mike Nelson	522-1608	csrockguy@yahoo.com
JEWELRY GROUP	Bill Arnson	749-2328	ritaarnson@msn.com
JUNIORS & PEBBLE PUPS	Steven Veatch	748-5010	Steven.Veatch@gmail.com
MICROMOUNT GROUP	Phil McCollum		acc@frii.com

Locations	
Board Meeting:	1st Thursday @ 7:00p. Senior Center, Mike Nelson: 522-1608
Camera Club:	4th Tuesday @ 7:30p, Senior Center, Roger Pittman: 683-2603
Crystal Study Group:	2nd Friday @ 7:30p, Senior Center; Kerry Burroughs: 634-4576
Faceting Group:	4th Thursday @ 7:00p, Senior Center, Dave Wilson, 635-7891
Fossil Study Group:	3rd Tuesday @ 7:00p every other month, Senior Center, Mike Nelson, 522-1608
Jewelry Group:	3rd Saturday @ 12n, 15610 Alta Plaza Circle, Peyton, Bill Arnson, 749-2328
Juniors & Pebble Pups:	3rd Thursday @ 5:15p & 6:30p, Senior Center, Steven Veatch, 748-5010
Micromounts Group:	2nd Tuesday @ 7:00p, 1514 North Hancock, Phil McCollum, acc@frii.com, Moyra Lyne, 442-2673

JULY 16TH GENERAL ASSEMBLY MINUTES

BY BOB GERMANO, CSMS SECRETARY

Ron "Yam" Yamiolkoski called the meeting to order at 7:35 pm and proceeded with the salute to the American Flag.

He informed the membership of the death of **Dorothy Atlee**, one of the prominent micromineral collectors in Colorado and Life member of CSMS. She was a unique woman with a true love of the mineral kingdom and possessed a passion for microscopic study. Members **Ray Berry** and **Kerry Burroughs** shared a few antidotes and noted she was a past editor of the P&P. Yam requested the membership observe a moment of silence in memory of Dorothy Atlee.

Yam asked for and received a motion to approved the June 18, 2009 General Assembly Minutes as they appeared in the Pick&Pack; it was seconded and approved by all members present.

Ann Proctor provided a positive Treasurer's Report.

No new members attended, but we did have four guests: Lisa, Bob, Greg and Tanya. Yam welcomed them to our meeting. We hope to see them as new members next month.

The Lapidary Group Chair position is currently vacant; however, **Drew Malin** agreed to conduct a meeting in September of all those interested in Lapidary to determine/establish a direction for the group. The time, September date, and place to be announced at a later date.

Our Scholarship Chair, **Mike Nelson**, announced **Michael Mitchell** as the recipient of the CSMS 2009 Scholarship award. Michael will be invited to the August Picnic or September General Assembly for the presentation of the award.

Yam recently appointed a committee to improve and update the CSMS website, and **Betty Cain** volunteered to lead the committee. The process is moving forward, and several small changes have already take place.

Annual Show Chair – Yam (acting) held the first organizational meeting July 16th at 6:30 PM in the Senior Center Lobby prior to our General Assembly. Yam made a point to invite all interested members to attend and provide inputs/suggestions and possible resolutions that will make our show an overwhelming success. The Annual Show is scheduled for December 5th & 6th at the Phil Long Center.

Our Field Trip Chair, Yam, discussed the CSMS field trip schedule; advising all to visit our website, www.csms.us.

Yam informed the general membership that The Rock Fair was a success. WMMI was pleased with the results, and even the vendors said they hoped we would do it again next year. WMMI and CSMS Boards

have agreed that next year we will do a two-day show in June. Planning meetings will start in January.

President's Report (Yam): As always, I would like the various Satellite Group leaders to provide an occasional article for the Pick&Pack that describe their activities. This will help our new members determine their interest in the various groups.

Additionally, please mark your calendars for Saturday, August 22nd for the CSMS Annual Picnic at WMMI, from 11:00 am until 3:30 pm. This year's theme is "Food of the Pacific Rim." This covers Asian, Mexican, the Pacific Isles, etc. We will also be doing our annual swap tables. Please advise me know if you need a table for the swap meet. Beverages, napkins, plates, and utensils will be provided by CSMS. If you can bring a grill, let me know. Sign-up sheets are up front. Please do your part in the cleanup effort at the end of the festivities. Thanks.

Door prizes for the July General Meeting were provided by **Ray Berry**.

Break Refreshments by the Jewelry Group.

Kevin Witte gave a presentation entitled, *My New Mexico Rockhounding Vacation*. Using "Gem Trails of New Mexico" by James R. Mitchell as his guide, he and his wife, Vicki, set out on a rock collecting adventure. They brought home specimens of petrified wood, alabaster, agate, and jasper just to name a few. He explained all the sites visited are within a day's drive from Colorado Spring and noted several locations where prior written permission was required to gain access. He concluded his presentation with a display table with many examples of the specimens they collected. During the presentation he reminded all of us to make sure we know the collecting rules for where ever we prospect, pointing out the "rockhounding" books we all use/reference are less than current when it comes to collecting rules and/or area limitations.

Thanks, Kevin, for an informative presentation.

In addition, some final reminders:

1. Check the CSMS website periodically for updates on field trips. Yam is still looking for more trips.
2. If you have not paid your dues yet, please get them to **Bill Cain** as soon as possible. Renewing members pay the full yearly amount, new members joining now pay for half a year.
3. The "old" Lapidary Group will provide cookies, etc. for the September General Assembly Meeting.
4. There will be no Annual Show planning meeting in August, but they will resume on September 17th at 6:30 PM, before our next General Assembly Meeting.
5. Don't forget our picnic on August 22nd.

Meeting adjourned at 8:37 pm.

September 2009



Our Staff...

Betty Cain	Editor
Bill Cain	Mailer
CSMS Members	Reporters

We encourage everyone to submit articles, photos, illustrations or observations.

Share your experiences, trials and tribulations, your new finds, or simply your experience at our last field trip.

The ability to write well is NOT a requirement. We will fix the grammar while keeping the author's voice, style, and work intact.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed.

DEADLINE for items to be included is the Saturday after the General Assembly every month.

To submit an item, please use the following:

For hardcopy photos or articles, mail to the address below or bring them to the General Assembly Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos should be submitted at resolutions above 200 dpi in JPG, BMP, TIF, or PIC format.

All articles not shown with an author are provided by the Editor.

Mail or email to:
 bettycain3@comcast.net or
 info@csms.us
 PO Box 2
 Colorado Springs, CO 80901
 Phone: (719) 634-8205

The Pick&Pack is published at least ten (10) times per year with email distribution and/or printed copies to 450 recipients per month (no issues in January or August); special editions may be distributed during January or August.

Unless otherwise marked, materials from this publication may be reprinted. Please give credit to the author and CSMS Pick&Pack.

CLASSIFIEDS . . .

NOTICE—Items listed for sale in the Pick&Pack are displayed only as an informational service to our members and advertisers. CSMS and/or the Pick&Pack do not promote nor warranty any item displayed. The sellers and buyers are responsible for the condition and ownership of any item shown.



CSMS Membership Pins

2008 New Members who have paid their 2009 dues are entitled to a one-year pin, as are other members renewing on 5-yr increments. Please see Bill Cain, Membership Secretary, to receive your award.

All back-year pins may be purchased for \$5 ea.

(719) 633-1153

Ackley's
Rocks & Stamps

RHONDA JO HART
 ART & HELENA ACKLEY OWNERS

3230 NORTH STONE AVE.
 COLORADO SPRINGS, CO 80907

DICK'S ROCK SHOP
and Bead Store

- Natural Stone Beads
- Natural Stone Eggs
- Exotic Wood Pen Sets
- Mineral and Fossil Specimens
- Gemstones
- Gold and Silver Jewelry
- Natural Stone and Wood Bookends

Cabs/Slabs
 Lapidary Equipment
 Silversmithing Equipment

Diana Wing - Owner
719-390-7788
www.DicksRockShop.com

108 W Ohio Avenue • Fountain, Colorado 80817

KRYSTALS

Gems Minerals Jewelry
 Crystal Skulls
 by Appt. Only
719-531-7203

Joe & Marylee Swanson Colorado Springs, CO
Krystals@webtv.net

www.kingsleynorth.com sales@kingsleynorth.com

Your Complete Supply House for Lapidary, Jewelers & Craftsmen

Free Color Catalogs - All discounted Prices
 Lapidary Supply Catalog &
 Tools, Supplies and Equipment for Jewelry
 Manufacturing Catalog

Kingsley North, Inc.

P.O. Box 215 • 910 Brown St
 Norway, Michigan 49870-0215

Phone: (906) 563-9228 Toll Free (800) 338-9280

Sangre de Cristo

Gallery & Rockshop

Steve & Peggy Willman
 114 Main Street, Westcliffe, Colorado 81252
 (719) 783-9459 gallery@ris.net

Denver-Fall Mineral & Fossil Show

September 16—20, 2009

Holiday Inn-Denver Central (I-25 & I-70)
 (4849 Bannock St.)

200 Dealers ♦ Retail & Wholesale ♦ Free Admission

Martin Zinn Expositions L.L.C., PO Box 665, Bernalillo, NM 87004
 Email: mzexpos@aol.com ♦ www.mzexpos.com

Betty Cain, Editor



NONPROFIT ORG
US POSTAGE PAID
COLORADO
SPRINGS, CO 80901
PERMIT No. 66

PICK&PACK
P.O. Box 2
COLORADO SPRINGS, CO 80901-0002

Time Value
Do Not Delay
September 2009



Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are held the third (3rd) Thursday of each month, except January & August, beginning at 7:30 p.m. at the Colorado Springs Senior Center, 1514 North Hancock Blvd., Colorado Springs, CO. **Visitors are always welcome.**

CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Camera Club, Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, see page 13.

Yearly dues include 10 issues of the *Pick&Pack*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), free admission to the *Western Museum of Mining & Industry*, a year of learning and enjoyment, plus a lifetime of memories. **New Members are half-price June 1—September 30.**

Individuals—\$20

Family—\$30

Juniors—\$5

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Assembly meeting (see page 2 for details of the next meeting) or visit our web site at www.csms.us or send an email to Info@csms.us.