

Vol 56 ..... Number 3

**CSMS General Meeting** 

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Thursday, April 21, 7:00 PM

The April meeting will be a short update on the Pebble Pup program by Steven Veatch. This will be followed by two Pebble Pup presentations: Jenna Salvat will speak on the Pikes Peak Granite injected into local sandstones. Casey Martin will talk about Colorado dinosaur bones and why they are radioactive.

This is a program not to be missed!

# **Refreshments provided by the Crystal Group**

## CSMS PEBBLE PUP HEADS TO STATE SCIENCE FAIR By Steven Wade Veatch

Sandstone injected into Pikes Peak Granite was the basis for Jenna Salvat's winning science project. Her entry "Sandstone Injectites in Fault Zone Areas: Sedimentological Characteristics Using Analog Models" won first place in the physical science division at the Pikes Peak Regional Science Fair on February 27 and is the project she will present at the state science fair in April.

Salvat is a tenth grade student at Coronado High School. Jenna is also a member of the Pikes Peak Pebble Pups and Earth Science Scholars. The Pikes Peak Pebble Pups have a group that meets monthly in Teller County and in one that meets in Colorado Springs.

"I have always been interested in geology in particular and science in general," she said.

The fair was held at the University of Colorado at Colorado Springs. Stu-



Each student designs and completes a science project requiring observation, imagination, and originality. Students who participate in the fair gain a deeper understanding of the natural world and learn valuable science and job skills. The Pikes Peak Regional Fair is one of 13 regional fairs in Colorado that select the best regional science projects that will compete at the 61st Colorado State Science Fair hosted by the College of Natural Sciences Education and Outreach Center at Colorado State University.

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Jenna Salvat stands in front of her project she entered in the Pikes Peak Regional Science Fair at UCCS. Photo by S. W. Veatch.

# **CSMS** Calendar

April & May 2016

Tue., April 5 & May 3—Fossil Group, 7 p.m., Senior Center. Jerry Suchan 303 648-3410
Thu., April 7 & May 5—Board Meeting, 7 p.m., Senior Center.
Tue., April 12 & May 10—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719 495-8720
Thu., April 21 & May 19—Pebble Pups & Juniors, 5:30- 6:15 p.m., Senior Center. Steven Veatch, 719 748-5010
Thu., April 21 & May 19—General Assembly, 7 p.m., Senior Center
Thu., April 28 & May 26—Crystal Group, 7 p.m., Senior Center. Kevin Witte, 719 638-7919
Thu., April 28 & May 26—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719 578-5466
Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070
Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

The Senior Center is located at 1514 North Hancock in Colorado Springs. For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, <u>csms-web.org</u>

# Other Events of Interest to CSMS Members Submitted by Pete Madreski

Apr. 1-3, 55<sup>th</sup> annual Fort Collins Rockhounds Gem and Mineral Show, at the McKee 4-H Building, Larimer County Fairgrounds, I-25 exit 259 (Loveland exit). 4-8 p.m. Fri., 9-6 Sat., 10-5 Sun. See<u>http://www.fortcollinsrockhounds.org/</u> <u>gemAndMineralShow.shtml</u>.

Thurs., Apr. 7, 7:00 p.m., Friends of the Colorado School of Mines Geology Museum's "First Thursday" lecture series, The Rare Earth Elements: Chemistry, Enriched Global Occurrences, and Criticality, by Mandi Hutchinson, plus A special insight into Rare Earth Minerals in Colorado, by Philip Persson. In the Ben H. Parker Student Center Ballroom E, Maple Street, Golden, CO 80401. Socializing begins at 6:30 PM and the talk will start at 7:00. Admission is free and all are welcome.

Fri., Apr. 8, 6:45 p.m., North Jeffco Gem & Mineral Club Silent Auction; APEX Community Recreation Center, 6842 Wadsworth Blvd, Arvada, CO. Setup at 5:30 p.m. Sellers & buyers welcome. Seller limits on number of items to sell: Club Members – No limit Non-members – Maximum of 30 items. Auction Begins 6:45 p.m. Checkout begins immediately after auction ends; no early checkout. Public welcome; free parking, free admission, free refreshments, bake sale too. For more info call Bill Jones 303-503-6288 or email sidewindermin@comcast.net .

Thurs., Apr. 14, the Colorado Scientific Society annual Past Presidents Dinner (to honor & introduce past presidents of the society; anyone is welcome to attend) will be held at White Fence Farm, Lakewood, CO. The speaker will be Matt Silverman, on "Tempest at Teapot Dome, Wyoming: the Greatest Political Scandal in the History of the American Oil Indus-try". See <a href="http://www.coloscisoc.org/">http://www.coloscisoc.org/</a> for more info.

**Fri.-Sun. April 15-17, Rocky Mountain Gem and Mineral Show**, to be held at Crown Plaza Hotel, 15500 E 40th Ave., Denver, CO (near DIA). 9 a.m. – 6 p.m. Fri. & Sat., 9 – 5 Sun. See <u>http://www.rockygems.com/april-mineral-show.html</u> for more info. Over 50 dealers. This new show is being sponsored by the Rocky Mountain Gem and Mineral Co-op, c/o Sandra Gonzales, <u>http://www.rockygems.com/</u> Note, the Colorado Mineral and Fossil Spring Show, which would normally be held toward the end of April, will *not* take place this year.

**Tues., Apr. 26,** 7:00 p.m., Colorado Scientific Society annual Emmons Lecture, "**The Quest for and Origin of the Only Known Natural Quasi-Crystal.**", by Lincoln Hollister, Princeton University, Professor of Geosciences, Emeritus. To be held at the American Mountaineering Center, auditorium, 710 10<sup>th</sup> St., Golden, CO. No charge and all are welcome. See <u>http://</u> <u>www.coloscisoc.org/</u> for more info when it is available.

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**Sat.-Sun., Apr. 30-May 1, Colorado School of Mines Geology Museum, Rock, Mineral, Book, and Map "Garage Sale"**, 9 a.m. – 4 p.m. each day, at the CSM Geology Museum, 13<sup>th</sup> and Maple Streets, Golden CO.

**Sat., May 7, Colorado Mineral Society Silent and Verbal Auction,** Holy Shepherd Lutheran Church, 920 Kipling Street, Lakewood, 11am-2:45pm (setup begins at 9am). Non-CMS members welcome to participate as buyers and/or sellers. More information at <u>www.coloradomineralsociety.org</u>.





Show Theme "How has mining influenced your life?"

Rhodochrosite, Sunnyside Mine San Juan Co, Colorado \* Jeff Scovil Photo

# Rocky Mountain Gem and Mineral Spring Show

### April 15,16,17, 2016

9AM - 6PM Friday & Saturday

9AM - 5PM Sunday

#### Crown Plaza Hotel Convention Center D

#### 15500 E 40th Ave Denver, CO 80239

Over 50 Gem, Mineral, Fossil, Lapidary, Jewelry, and Meteorite Dealers (Wholesale / Retail)



For more information visit www.rockygems.com



# Colorado Mineral Society's <u>Silent and Verbal Auction</u>

# Saturday - May 7, 2016

Minerals, fossils, faceted stones, lapidary pieces, books, jewelry, and fluorescent minerals

- Door prizes every half hour, raffle at 2:45pm
- Special verbal auction at 1:00pm of museum quality specimens donated by special dealers
- Abundant parking, refreshments, and easy handicap access
  A few auction tables reserved for only children to bid on
- Location: Holy Shepherd Lutheran Church 920 Kipling Street (3 blocks north of West 6th Ave.)
- Lakewood, Colorado 80215 Time: 11:00am to 2:45pm
- Checkout will begin at 2:45pm (Cash or Check Only) \*\*A special invitation is extended to non-CMS members to

#### A special invitation is extended to non-CMS members to participate in this auction as sellers and buyers\*\*

 $\label{eq:limit} \mbox{Limit of sales to three flats of materials. Sellers can get copies of bidding slips on our club website (fillable and printable pdf file):$ 

#### www.coloradomineralsociety.org

Checkout will be by bidder number, lowest number first, so contact Leslie Osgood at 303-986-4488 for a bidder number and/or seller letter Any questions about the auction should be directed to Howie Houk by phone at 303-237-7072 or by email at <u>hhouk@msn.com</u>



# **CINNABAR AND MERCURY**

#### Mike Nelson csrockguy@yahoo.com

One of the "fun" things about being a rockhound is the opportunity to join with like-minded persons in a local rock and mineral club(s). Upon moving to Colorado Springs nearly ten years ago I attended a meeting of the Colorado Springs Mineralogical Society, was greeted warmly, and shelled out a few bucks to join. I have found that the Society is packed with persons of all ages excited about the prospect of collecting (or viewing collections) rocks, minerals and fossils. The Society has a history of members who were/are extremely talented in various aspects of mineralogy and paleontology. Some of the most knowledgeable crystallographers and mineralogists in the country have belonged to CSMS (and still do), and club members are very willing to share their time with newer visitors. Although the satellite groups are perhaps not as populated as in past decades (lots of busy people), members wanting to learn the art of faceting, or become more knowledgeable about crystals and fossils, certainly are welcome to attend these ancillary group meetings.

I have also noticed that Society members are often willing to offer their time in such activities as the annual show, spearheading the monthly food arrangements, publishing the *Pick n Pack*, designing and updating the web site, locating speakers for the monthly meetings, running the library, leading field trips, organizing and operating the Pebble Pups and Earth Science Scholars, and organizing the Society by serving as an officer or Board member. I believe the Society owes a great deal of thanks to our current and past participants.

In my opinion, CSMS has had a line of editors who have produced, and continue to do so, a newsletter worthy of national attention. It takes much work to "put this epistle out on a monthly basis" and I certainly appreciate their dedication to the Society. Several years ago one of the editors, Betty, said something like "Mike, why don't you write something up for the *Pick & Pack*?" I sort of hesitated since almost all of my previous writing experience, although extensive, had been for professional journals. But, I was looking for new opportunities and decided to give newsletter writing a try. I suppose May of 2008 was the beginning of my love affair with the *Pick & Pack* as virtually every issue since then has afforded me an opportunity to express my view of "something." This April 2016 article is a personal milestone as it represents about contribution #120 (in addition to a slew of contributions to other club newsletters and the RMFMS and AFMS). I simply love to write. If you are counting months and they do not add up-- for several years I wrote a second column, *Ask a Geologist*! It has been a good run and outside of a few comments about my wordiness, a fun time. I hope to continue for the foreseeable future as I have much to say!

One of the common discussions of mineral chat groups are bits and pieces about radioactive minerals and minerals containing higher levels of toxic elements. I generally shy away from the radioactive minerals although many of them are brightly colored and quite attractive (especially many uranium minerals). However, I do like to collect various arsenate minerals, the brightly colored arsenic sulfides realgar and orpiment, and the scarlet colored mercury sulfide cinnabar. After handling these, and in fact all minerals, I wash my hands with soap and water. In addition, I keep these last three minerals in a separate glass-lidded small case.

Mercury (quicksilver) is one of those interesting elements that I vividly remember from my college days in mineralogy and chemistry. However, one must remember that those days were long ago and generally before anyone thought too much about mercury's toxicity. But in those "olden" days mercury was "fun" to play with since it is the only mineral metal that is liquid at room temperature. I distinctly remember "defacing" (in those days a federal crime I believe) copper pennies by subjecting them to a bath in nitric acid. We then smeared these reduced-size pennies with mercury and tried to pass them off as dimes (when dimes were worth "more"). We also played games on the black lab tables with moving liquid globs of mercury! In mineralogy class, we loved to heat up ore and watch the mercury bubble up on the surface. Have a time machine take us back to the late 1990's when a mercury thermometer broke on the floor in the hallway of the science building. In a few minutes the building was evacuated and the fire team arrived in space-like hazmat suits (we soon replaced all of those mercury thermometers). In addition, when living in Wisconsin I watched my dietary intake of fish caught in lakes contaminated by mercury. My teeth have numerous amalgam fillings from 50 years ago.

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However, they are slowly breaking apart and being replaced by quite expensive ceramic caps. As Bob Dylan crooned, *The times they are a-changin*!

In fact, the other day after an appointment with a dentist to replace an amalgam filling, I was "thinking" about mercury. Did any of that metal really leach into my system from over 50 years of having that mixture in my teeth? Did I eat too many walleyes in past years? What about the chemistry labs, did I absorb the liquid? I don't seem to have any symptoms of mercury poisoning so maybe I am "OK". I am hoping that the odds for contracting mercury-related problems are sort of like the Powerball© odds---something like 1 in 175 Million.

After pondering these deep thoughts, I decided to check my collection and take a peek at some nice crystals of cinnabar, the major ore of mercury (Figs.1-3). Cinnabar often is "massive" with poorly-formed crystals; however, there are exceptions and one of those crystal localities is found in Nevada. Here the individual crystals are large (for cinnabar), very soft (easily scratched by a fingernail, 2-2.5 Mohs), and their scarlet color is often somewhat masked on the surface and they seem to display a submetallic luster. However, underneath the surface the beautiful scarlet color stands out with an adamantine luster. The Antelope Springs crystals (Pershing County, Red Bird Mine) are well known among collectors as individuals are often twinned (penetration twins) with six-sided crystals surrounding a top pyramid. The twins are two "penetrated" individual crystals with a common C-axis rotated 180 degrees from each other.



As far as I can tell, there are no operating mines in the U.S where mercury is the primary objective; however, there may be mercury produced as a byproduct of mining other metals. In past years Nevada was a (?the) major state for the production of mercury and as a result parts of the state, especially in western and central regions, are littered with abandoned mines. In the 1990's the USGS begin a long-term study examining the effects of the abandoned mines on the surrounding ecosystems (Gray and others, 1999). They noted: "Mercury is a heavy metal of environmental concern because highly elevated concentrations are toxic to living organisms, and thus, the presence of these abandoned mercury mines is a potential hazard to residents and wildlife when drainage from the mines enters streams and rivers that are part of local ecosystems...At the abandoned mercury mines in Nevada, the presence of cinnabar remaining in ore and calcine piles (roasted ore), and any elemental mercury around the mill and retort areas are environmental concerns. For example, in all the districts studied, there is cinnabar visible in the area of the open pit cuts and trenches, ore piles and tailings, as well as in the calcine piles...Detrital cinnabar and cobbles containing cinnabar visible in streams drainages below the mines indicate that mercury present at these sites is eroding down gradient from the mines." That sounds like pretty messy stuff to me and I remain uncertain about cleanup efforts, if any.

Mercury was mined in Nevada from about 1907 (discovered by then at Antelope Springs and with mining beginning in 1914) until the early 1990's. The District mines produced from hydrothermal veins in Triassic limestone, dolomite, conglomerate, and shale (Gray and others, 1969). Evidently these veins were emplaced during the Miocene as a result of extensional magmatism (Noble and others, 1988). That is, Miocene extensional tectonics involved the stretching of the

earth's crust producing what we know today as the Basin and Range Physiographic Province.

As for mercury in fish, these animals are contaminated by the emissions of many coal-fired power plants. When mercury in the atmosphere settles into lakes and streams microorganisms convert it to a very toxic form call methylmercury. In turn, various species of fish consume the microorganisms and then themselves are consumed by humans or other fish that are consumed by humans. Thus, we take a quite toxic element into our bodies.

As a point of interest (to me anyway) is that Meriwether Lewis took along, as a medicine, substantial amount of mercury and mercurial compounds to fight rampant outbreaks of venereal disease (and others) among the boatmen. Some brought it along as a pre-existing condition while other crew members picked it up along the way from Native Americans who in turn had contracted it from British traders. The most famous of the mercury pills were the Bilious Pills of Dr. Benjamin Rush. These powerful pills, termed Rush's Thunderbolts or Thunder Clappers acted as a laxative and a body purger; they really cleaned out the digestive system! The major ingredient of the pills was mercury chloride. So, if the syphilis didn't get you, the gums bled and your teeth loosened and fell out. And if things were really bad the expedition leaders had packed several urethral or penis syringes in order to inject mercury solutions directly into the urethra. Ouch! Those men were one tough breed. Today modern historians are able to accurately locate many campsites of Lewis and Clark since the ground still retains mercury----in elevated amounts!

In today's hectic and uncertain world, I continue to remember Dylan's words:

Come senators, congressmen Please heed the call Don't stand in the doorway Don't block up the hall

For he that gets hurt Will be he who has stalled There's a battle outside And it is ragin'. It'll soon shake your windows And rattle your walls For the times they are a-changin'.

### **REFERENCES CITED**

Gray, J.E., M.G Adams, J.C. Crock, and P.M. Theodorakos, 1999, Geochemical Data for Environmental Studies of Mercury Mines in Nevada: U. S. Geological Survey Open-File Report 99-576.

Noble, D.C., J.K. McCormack, E.H McKee, M.L. Silberman, and A.B. Wallace, A.B., 1988, Time of Mineralization in the Evolution of the McDermitt Caldera Complex, Nevada-Oregon, and the Relation of Middle Miocene Mineralization in the Northern Great Basin to Coeval Regional Basaltic Magmatic Activity: Economic Geology, v. 83

## Mark your calendars!

RMFMS Convention and Wichita Gem and Mineral Society Annual Show April 22, 23 and 24, 2016, at the Cessna Employees Activity Center, 2744 S. George Washington Blvd, Wichita Kansas

The host hotel and convention headquarters is theLa Quinta Inn East, 7335 East Kellogg Drive, Wichita,



# PEBBLE PUPS CORNER

### CSMS PEBBLE PUPS START NEW YEAR WITH GEODE FEST

#### By Steven Wade Veatch



The Pebble Pups spent the first class of the new year working with geodes. Roger Pittman brought his diamond studded trim saw and a supply of geodes for the Pebble Pups to work with. Each geode was sawed open and then washed in dish soap.

Next the Pups took their prized specimen to the classroom next door where the geodes were subjected to ultraviolet radiation by Blake Reher. Some of the geodes reacted to the radiation by fluorescing a bright lime green or a subtle blue.



## THE PIKES PEAK PEBBLE PUPS AND EARTH SCIENCE SCHOLARS ENGAGE STUDENTS THROUGH SOCIAL MEDIA

#### By Steven Wade Veatch

The Pikes Peak Pebble Pups and Earth Science Scholars explore the wonders of rock, mineral, and fossil collecting in the Pikes Peak region. The program participates with the Future Rockhounds of America under the American Federation of Mineralogical Societies. The purpose is to train Pebble Pups and Junior Members (teens) of the Colorado Springs Mineralogical Society and the Lake George Gem and Mineral Club.

The Pebble Pups and Junior Members of the Colorado Springs Mineralogical Society and the Lake George Gem and Mineral Club use social media to engage the public and communicate with each other and with parents.

The Pebble Pups and Earth Science Scholars have maintained a *blog* for a number of years. This blogsite has thousands of hits each month and countless followers throughout the world. The blog is also used by Pebble Pups to earn merit badges through the American Federation of Mineralogical Societies. The blog is also instrumental in reaching Pebble Pups and Earth Science Scholars who participate in the distance program. The Pebble Pup blog is at this URL: <a href="http://pebblepups.blogspot.com/">http://pebblepups.blogspot.com/</a>

The Pebble Pups also use *Facebook* for short announcements of scientific/hobby interest and to stay in touch. The Pebble Pup Facebook is for all ages and members are encouraged to "like" their Facebook in order to follow their interesting posts. Check out the Pebble Pup Facebook at <a href="https://www.facebook.com/PikesPeakPebblePups">https://www.facebook.com/PikesPeakPebblePups</a>

2016 CSM	S Officers	At Meeti	ng	
Jean Luce, F	President		X	
Lisa Kinder,	Vice President	t	X	
Ronald "Yarr	n" Yamiolkoski,	Secretary	x	
Ann Proctor	, Treasurer		X	
Norma Rhod	les, Editor		X	
Sharon Holte, Membership Secretary			X	
Doreen Schmidt, Member-at-Large			x	
Ariel Dickens, Member-at-Large X			x	
Mark Lemesany, Past President				
2016	CSMS Chair	persons		
Kim & Bodie Packham, Show Chairs				
Sharon Holte, Field Trip Director				
TBD, Science Fair Chair				
Frank & Ellie Rosenberg, Librarians				
TBD, Social Committee Chair				
Ann Proctor, Store Keeper				
Jackson Peirce, Webmaster				
Sub-Group Responsibilities for Refreshments for General Assembly Meetings				
Feb.	Mar.	Apr.		
Micromount	Board	Crystal		
Мау	June	July		
Faceting	Fossil	Jewelry		
Αυσ	Sent	Oct		

## SECRETARY'S SPOT by Ronald "Yam" Yamiolkoski

General Meeting Minutes of the Colorado Springs Mineralogical Society March 17, 2016 Special Guests Clint and Louisa Cross

Lisa Kinder introduced our speaker for the evening, Clint Cross, who discussed turquoise and in particular the turquoise from the Burtis Mine in Cripple Creek, Colorado. Clint said that the mine has been owned by the Burtis family since 1939 and is the source of high quality blue turquoise. At present he is doing the actual mining and working with the Burtis family. The turquoise comes out in various shades of blue and has a hardness of seven to eight. Curt uses a number of jewelers to make the Burtis Mine turquoise jewelry he sells. Clint also said that there is a lot of fake turquoise on the market and demonstrated how to make it using some aluminum phosphate ore and blue Tidy Bowl. Needless to say, Curt does not sell fake turquoise jewelry.

Jean Luce, our President, took time to recognize new member and guests who introduced themselves.

The meeting was officially called to order by Jean Luce at 8:17 PM. Eight of the nine officers were present.

The minutes of the February meeting as they appeared in the Pick & Pack were approved.

- Jean Luce introduced the Group Leaders present and offered them each an opportunity to speak:
- A. Bill Arnson, who chairs the Jewelry Group, said that interested members should contact him directly if they wanted to arrange a session. He said that he has moved to near Dublin and Union in Colorado Springs thereby making it easier to come to his home. He also said that he would schedule a wiring wrapping class in the near future based on a show of hands from those present at the meeting.
- B. Sharon Holte, our Field Trip Chair, is looking for volunteers to lead Field Trips. Field Trips during the week are OK. Sharon said that she would try to set up a field trip to the Holcim Quarry.
- C. Sharon Holte, who is also our Lapidary Group Chair, said that she would be starting up classes again in April. Contact her to arrange times.
- D. Jerry Suchan, who chairs the Fossil Group, said that the next meeting (second Tuesday of the month) would deal with the fossils found in the Beldan Shale near Trout Creek Pass in Colorado.
- E. The Faceting Group, which meets the 4<sup>th</sup> Thursday of the month will be dealing with aquamarines the next meeting,

SEE PICK & PACK FOR MORE INFORMATION ON CSMS GROUPS.

Jean Luce said that there would be no update on the June Show because Kim Bodie, Show Chair, was not available. Bob Landgraf said that he was looking for cases for the June show and that there were info sheets at the front for any and all who are interested.

Jean Luce noted that Georgia Woodworth, who has been volunteering to be the CSMS Social Chair, can no longer do it because of work commitments. We need a new volunteer to take care of the refreshments at our monthly meetings. If you are interested in volunteering, please contact Jean Luce or any other officer.

Because we had a number of items available for door prizes, Yam drew a number of names and members and guests had a chance to pick a specimen for their collections.

The meeting was adjourned at 8:35 PM.

Lapidary

Micromount

**December Christmas Party** 

No Meeting

Nov. Board

## A THIMBLEFUL OF GOLD By Oscar L Price

Before the big Gold Rush in California, and before the Kansas Territory was established, a place the Indians called Color Red would become Colorado many years later. This place had large herds of elk, buffalo and pronghorn antelope grazing in prairies and mule deer grazing along the foothills. The cottontails and jackrabbits were another good source of meat for the Indians that lived here.

The Kiowa, Cheyenne and Arapaho Indians frequented the Black Forest southeast of Denver, setting up their winter camps among the ponderosa pines that gave them plenty of wood for cooking and for campfires. The trees also gave them some protection from the cold north winds that blew across the prairies.

There are telltale signs of Indian encampments all up and down the Front Range from Wyoming to Trinidad, Colorado. The fire rings the Indians used can still be found along the Palmer Divide and in the bluffs north of Limon, 70 miles east of Colorado Springs. The bluffs gave the Indians a good place to watch the prairies for wild game.

Large twisted trees, usually ponderosa pines, can be found in Black Forest and Ute Pass and all over the woodlands of Colorado. These twisted trees are believed to have been modified as saplings, tied down with strings made from yucca plants (soap weed). These trees were passed up by Palmer and other loggers because they weren't good for sawing for lumber.

It is still a mystery what the twisted trees meant and what purpose they served the Indians. Some think they were for religious worshiping; some think they were trail markers to a water source or to herbs for making medicine.

Agatized and opalized petrified wood is found north of Black Forest in Douglas County. This flint-like stone gave the Indians an abundance of material to make arrow points, axes and spears. Rhyolite was another material used by the Indians in tool making. Rhyolite is an ancient volcanic rock, light colored silicate, buff to pink, occasionally light gray, and when broken leaves a sharp edge.

The Arapaho followed a trail from Fort Laramie, Wyoming to Bents Fort and to Taos, New Mexico and across to Northern Texas to trade for horses from the Comanche. This trail crossed the upper west drainage of Cherry Creek and Russellville Gulch and by the historic Russellville Ranch located south of Franktown. This trail would later be known as the Cherokee Trail, not to be confused with "The Trail of Tears." Around 1849, trappers and white settlers, who had intermarried with the Cherokee, traveled the trail together with their trade wagons, traveling as a family headed for the gold fields of California.

Around 1830, one of the first prospectors in the Colorado Territory was William Green Russell. He and his brother found about "a thimbleful of gold" in and around Black Forest. Because it was so little, they gave up and went back home to Georgia empty handed.

Later, In1858, a party of Cherokee Indians led by William Green Russell returned to the Colorado Territory and set up their gold camps along a little creek near what is now known as Russellville Gulch.

Russell took part of his party down Cherry Creek and sent a few of the Cherokee prospectors up into the northern drainage basin of Cherry Creek to look for gold. The Cherokees claimed to have found gold but would not go back there because they were afraid of the Arapaho, who had driven them out.

Later Russell's first gold camp would be known as Russellville and shortly after became Russell's home place where he had his sawmill and stage stop. His ranch was near the creek that runs in front of the Russellville Ranch and into Cherry Creek, where Russell found many ounces of gold which soon led to the Colorado Territory gold rush. This helped create the birthplace of a small town that grew into a large city named Denver. Shortly after came gold claims at Black Hawk and Central City, and later gold was discovered in Cripple Creek. A few became rich while thousands chased only an elusive dream.

The Cherokee Trail and the upper northwest Cherry Creek drainage were located on the historic Russellville Ranch in Douglas County south of Franktown, Colorado. The ranch had a hotel, ice house and a stage barn. The ice house and stage barn still stand today. The ranch became a stopover for travelers and a place to rest and unhitch and feed their horses.

(Continued on page 10)

My wife Joyce and I have great memories of the Russellville Ranch before it became a housing development. We were privileged to become acquainted with the foreman of the ranch. I worked for Mountain View Electric back in the early 60's and helped build a new electric power line on the ranch. While building the power lines, I noticed there was lots of petrified wood in the small creek that ran through the ranch and also along the hillsides. Back then I didn't know anything about the history of this historic ranch or about any gold found in the Northwest Cherry Creek drainage.

I first met Dutch, the ranch foreman, while building the power line. I told him that I was a rock hound and asked if I could come back someday and collect some petrified wood. Dutch invited me to come back anytime and take as much of the petrified wood as I wanted. He told me the owner of the ranch was a millionaire who owned a big clothing store in Denver. He said the owner of the ranch came down once in a while to the ranch to get a break away from Denver and the rat race of running the big store.

Joyce and I had made a trip or two to the ranch during the summer before we got to meet the owner of the ranch. We had driven up to Russellville Ranch on a Saturday morning and Dutch and another man were digging post holes and mending fence. The other man happened to be the ranch owner. Dutch introduced us to him. I'm sorry I have forgotten his name after all these years.

Joyce and I thanked him for letting us rock hunt on his ranch and told him what a beautiful place he owned. We told him that we loved coming up here to get out of town and to rock hunt. The land owner said to us, "Dutch has told me that you were one of the lineman that helped build the power lines across the ranch. Also, that you had grown up on a farm and knew about cows and the importance of closing gates behind you." He said, "If Dutch said it was OK, I have no problems with you rock hunting on the ranch."

He smiled and asked, "Do you like to fish?" and told us that he had three different fish ponds, one for trout, one for catfish, and one for bass, and we were welcome to fish anytime we wanted. Also, we could camp and rock hunt any time on his ranch because we had asked for permission and he knew we would not damage the property.

Later on in the summer Joyce and I decided to take a ride back up to Russellville Ranch. We stopped to say hello to Dutch and his wife. Dutch said, "Guess what? Last week a lady from Denver found a gold nugget over there in the creek. It was as big as my thumbnail." I didn't have a gold pan with me so we never had a chance to pan for gold on that trip.

The next time we went up to the ranch I noticed that Dutch had gathered rocks and had been breaking them up and putting them on a wooden table in front of the ranch house where he lived. Dutch must have been like me and must not have known about the history of the ranch and how Russellville Ranch got its name or he would most likely have been prospecting for gold long before the gold nugget was found by someone from Denver.

At that time I didn't know that this was the creek in the northwest drainage basin for Cherry Creek and this was where William Green Russell had set up his gold camp. Thanks to The Douglas County Historical Society for their great history of this beautiful ranch where Joyce and I had those wonderful field trips gathering petrified wood. We will never forget the good times we had rock hunting there. What a great place. Yes, those days are gone now.

I don't know if Dutch found any gold or not because shortly after this the Ranch was sold to land developers. Dutch and his family moved away onto another ranch at Parker, Colorado. We lost track of him after he moved. Russellville Ranch now has expensive homes built on part of it, but the old stage barn and ice house still stand are now a Historical Landmark, thanks to the Douglas County Historical Society.

Sometimes when I think back about when we were walking around on the ranch I would get a ghostly feeling, as if someone or something was watching us. Maybe there are spirits and this was the Arapaho Indian spirits in the wind, watching us, making sure we didn't take their gold off their land. If we had listened closely we might have heard the splashing of their ponies' hoofs as they galloped across the creek.

I wonder what happened to that gold nugget the lady found in the creek on Russellville Ranch. Is someone still showing it off to a friend or was it melted down and is now a ring being worn on someone's finger? Was there a mother lode hidden beneath the ground close by where it was found on the ranch? How many have walked by the elusive gold and didn't know it was there, just like I may have back in the early sixties? I believe there are lots of

<sup>(</sup>Continued on page 11)

big gold nuggets on and around Russellville. Maybe someday someone will look in their gold pan and say, "Look what I found. It's a gold nugget."

I recall the first time I went gold panning on the Arkansas River. I didn't get rich but I had fun panning for gold all day. I came home with two small flakes of gold, two tired arms and one sore back.

Now when the red-tailed hawk flies over Russellville Ranch it sees paved streets and roofs of large houses with children playing in the back yards. Maybe beneath the basement of one of those houses is more than just a "thimbleful of gold." Maybe the elusive mother lode is still hiding there, but I guess we will never know. It's OK to get gold fever or get excited prospecting for beautiful gem stones or have fun collecting fossils. It's a "good thing" to be a Rock Hound. Maybe it will keep us longer above the ground.

#### **References:**

Douglas County Historical Society's History of Russellville Ranch. History of Russellville, CO by Patrick Gerity. Personal recollections.



The Friends of the Colorado School of Mines Geology Museum, the Friends of Mineralogy Colorado Chapter, and the Denver Region Exploration Geologists' Society invite all academics, industry professionals, pegmatite researchers, geologists, mineralogists, mineral collectors, lay persons, and students to attend the 2nd Eugene E. Foord Pegmatite Symposium, July 15 -19, 2016. There will be two full days of talks (July 16-17), followed by two days of field trips (July 18-19). The talks will be held on the Colorado School of Mines campus, Golden, Colorado. Invited speakers include: Dr. David London, University of Oklahoma, author of "Pegmatites" Dr. William "Skip" Simmons, Univ. of New Orleans & Maine Mineral Museum, co -author of "Pegmatology" Dr. Michael Wise, Smithsonian Institute

This exciting Symposium will cover pegmatite geology and mineralogy in the Colorado region, as well as world -wide occurrences, pegmatite genesis, pegmatite mineralogy/geochemistry, structure and crystallography, and pegmatite mining histories. The registration fee of \$100 will include a Friday night reception, two days of presentations, a black and white hard copy proceedings volume, a color digital proceedings volume, and free field trips (travel will be by car-pooling). Registration for full time university (student ID required) or high school students is \$50. Registration fees are waived for invited speakers and field trip leaders. Speakers, poster presenters and field trip leaders will be provided with a one year (2016-2017) free membership in both Friends of the CSM Geology Museum and the Friends of Mineralogy Colorado Chapter. A Saturday evening banquet and box lunches for the field trips will be optional at cost. Housing will be available in single or double room college dormitories on the CSM campus as well as in motels/hotels near Golden. Look for further information on the Friends of the CSM Museum page, https://www.facebook.com/LikeCSMGeoMuseum/ ; the symposium website http:// www.colorado.edu/symposium/pegmatite/ has full registration details. To receive future updates about the symposium or to offer to present a paper, please contact Mark Jacobson, markivanjacobson@gmail.com, or Pete Modreski, pmodreski@usgs.gov.

# WALKS AND TALKS ON ROCKS

or

## **Minerals of the Pikes Peak Batholith**

By Jack and Kaye Thompson

Here at the foot of Pikes Peak, we have a great collecting area known as "The Pikes Peak Batholith". The batholiths stretch from Mt. Pikes Peak to the north to Buffalo Creek and the Lone Rock Pluton, south to Mt. Rosa, and extends to the west side of the Terryall Mts., then east to the front side of the mountain Pikes Peak as shown on the map.

In the Pikes Peak batholith outstanding minerals are found in miarolitic cavities and in pegmatites. Pegmatities are made of course grained igneous rocks, such as are found in plutons or batholiths but they are much smaller in size. Most pegmatites have very simple cores that are made up of feldspars and quartz, but in some of the pegmatites in this area rare minerals and valuable gem stones have been found.





Miarolitic cavities found in the Pikes Peak Batholith are similar to the pegmatites found here but tend to be smaller. The open cavities found in the batholith are filled with clay, aplite, and fine grained granite. Many of the miarolitic cavities in the Pikes Peak batholith are collapsed and filled with fine grained aplitegranite. In these miarolitic cavities, quartz crystals run in size from ¼ inch to over 4 ft. as found at the Holy Moses Mine. Gem stones and rare minerals have also been found in these cavities.

#### **References:**

Facts on File Dictionary by Dorothy Farris Lapidus

Pegmatites by David London

Photo Drawings: by Steve Russell





### Our Staff... Norma Rhodes—Editor

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

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

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed. The DEADLINE for items to be included in the next Pick & Pack, is the **21st of the month** 

To submit an item: For hardcopy photos or articles, mail to the address below or bring them to the General 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 TIF, BMP, JPG, or PIC format. Articles are preferred in word. Editors will correct font.

E-Mail to: csmseditor@hotmail.com

Mail to: Pick & Pack Editor PO Box 2 Colorado Springs, CO 80901

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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 10 times each year to assist and promote the above.

## Joining the Colorado Springs Mineralogical Society (CSMS):

Meetings are held the **third (3rd) Thursday of each month**, except January & August, **7:00 p.m.** at the Colorado Springs Senior Center, 1514 North Hancock Ave., Colorado Springs, CO. <u>Visitors are always welcome</u>. 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: Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

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.

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