



THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs
Mineralogical Society
Founded in 1936

Lazard Cahn
Honorary President

July 2018

PICK&PACK

Vol 58.... Number #6

CSMS General Assembly

Thursday, July 19, 7:00 PM

Speaker: Ben Elick

**Topic: Repeat Photography
(Please see details on page 9)**

**Please note: Members whose last names begin with M-Z
are responsible for refreshments in July**

****In case of inclement weather, please call**
Mt. Carmel Veteran's Service Center 719 309-4714**

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Colorado Springs Mineralogical Society's August Picnic 2018

Be sure to mark your calendars to attend the CSMS August Picnic on August 16, 2018, at the Golden Corral located at 1970 Waynoka Road in Colorado Springs. The gathering will begin at 5PM and continue until we get tired or they close..

Please come and meet fellow club members, dine on a wide variety of food, and share stories of this year's prospecting, collecting, learning, designing, making, buying, and selling.

This is a good time to learn more about all of the club's activities and maybe make a new connection with someone who has similar interests or more knowledge about your particular interest in mineralogy.

CSMS Calendar

July & August 2018

Thu., **July 5** — **Board Meeting**, 7p.m., Pikes Peak United Methodist Church

Tue., **No Mtgs. 'til Sept.** — **Fossil Group**, 7p.m., Methodist Church, Jerry Suchan, 303 648-3410

Thu., **No Mtgs. 'til Sept.** **Pebble Pups & Jrs**, 5:30p.m., Mt. Carmel Ctr., Steve Veatch, 719 748-5010

Thu., **July 19** — **General Assembly**, 7p.m., Mt. Carmel Center

Thu., **No Mtgs. 'til Sept.** — **Crystal Group**, 7p.m., Mt. Carmel Center, Kevin Witte, 719 638-7919

Thu., **No Mtgs. 'til Sept.** — **Faceting Group** 7p.m., Medina's home, John Massie, 719 338-4276

Note: The Micromount Group is not meeting at this time. If you are interested in meeting, please call Dave Olsen, 719 495-8720

Appointment Only—**Jewelry Group**, Bill Arnson, 719 337-8070

Appointment Only—**Lapidary Group**, Sharon Holte, 719 217-5683

For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms1936.com

Upcoming Events of Interest to CSMS Members

Submitted by Pete Modreski

July 6-8, Four Corners Gem & Mineral Show, La Plata County Fair Grounds, Durango, CO, sponsored by the Four Corners Gem & Mineral Club. 10 a.m. – 6 p.m. daily.

Tues., July 10, WMMI (Western Museum of Mining & Industry) Speakers' Bureau Lecture, "**Colorado Fuel & Iron**", by Victoria Miller. The lecture will begin at 7:00 pm (doors open at 6:30 pm). \$5 per person, free for museum members. Please RSVP to 719-488-0880 or email rsvp@wmmi.org. At 225 North Gate Blvd., Colorado Springs.

July 12-15, 9 a.m. – 5 p.m. daily, there will be a "**Home Rock Show (Sale)**" by John Haney, 4242 Thompson Court, Denver CO. 80216 (south of I-70, east of York St. & west of Steele St.). "Rough rock, slabs, cabs, fossils, amber, turquoise, minerals, crystals, gemstone bowls & boxes, lapidary equipment & supplies; discounts for lapidary students." Contact, rocksisme@comcast.net, 303-296-8268.

Aug. 3-5, Creede Rock & Mineral Show, at the Creede Underground Mining Museum and Community Center, Creede, Mineral County, CO. 10 a.m. – 5 p.m. daily; see <http://creederocks.com/>.

Sat.-Sun., Aug. 4-5, 2018, A symposium on **Minerals from the Metallic Ore Deposits of the American Southwest**, sponsored by the Friends of Mineralogy, Colorado Chapter, and the Friends of the Colorado School of Mines Geology Museum. To be held on the CSM campus. It will include at least 1½ days of presentations, a welcoming party and/or evening banquet, and probably one or more field trips. Presentations are invited! To offer to give a presentation, please write to fmccpresident@gmail.com. I'll share more information about this symposium as soon as it is available.

Aug. 9-12, Contin-Tail rock & mineral show, Buena Vista Rodeo Grounds, Buena Vista, CO; see www.facebook.com/ContinTail

Aug. 16-19, Woodland Park Rock, Gem, & Jewelry Show, Woodland Park, CO; see <https://www.facebook.com/woodlandparkrockandgemshow/>

Aug. 17-19, Lake George Gem & Mineral Show, sponsored by the Lake George Gem and Mineral Club, Lake

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George, CO. See <http://www.lggmclub.org/>

Sep. 7-15, Colorado Mineral and Fossil Fall Show, Crowne Plaza Hotel - Airport, 15500 E. 40th Ave. Denver, CO.

Sep. 8-16, Denver Coliseum Mineral, Fossil, and Gem Show, Denver Coliseum; see <http://www.coliseumshow.com/>

Sep. 12-15, Denver Fine Mineral Show, Denver Marriott West, 1717 Denver West Blvd.; see <http://finemineralshow.com/denver/>

Sep. 14-16, 51st annual Denver Gem and Mineral Show, Denver Mart, 451 E 58th Ave., Denver, CO. **Minerals of Mexico** is the 2018 show theme. See <http://denvershow.org>

Sep. 20, Colorado Scientific Society Student Paper Night; oral or poster presentations by graduate (or undergraduate) students on their earth science research topics, with an award given for the best presentation. To be held at the Arbor House, Maple Grove Park, 14600 W. 32nd Ave., Golden CO. For more information (including for students who wish to apply to present a paper) see <http://coloscisoc.org>.

Brad's Bench Tips for July

SAVE WHEN BUYING SILVER

Silver products like sheet, wire, and casting shot are sold by the Troy ounce at what is called the spot price. That's what companies pay for the pure metal on the commodities market, and the spot price changes daily.

But in addition to the spot price, there is also a cost to fabricate the metal into wire or sheet, so the price of the item you buy is the cost of the metal plus the cost to make it. Different products have different fabrication charges because each takes a different amount of labor. Also, different companies will have different fabrication charges because of local labor rates and their desired profit margin.

You can save money by finding a company with a lower fabrication charge. Also, note that the fabrication charge per ounce is less on larger orders, so you can save more by buying more. Find a friend to place a joint order and split the shipping charges.

But for casting purposes, there's an even better way to save. Buy your silver at a coin store. They sell bars and rounds in pure and Sterling for the spot price plus about a dollar per ounce.

The local coin shop adds only a small profit over the spot price. So I save about \$3 per ounce, pay no shipping charges, don't have to wait for mail order, and support a local business.



SAWING JUMP RINGS

The difficult part of making jump rings for me has always been holding the coil while cutting off the individual rings. I use a saw to get the best fit when closing the rings later. I've seen all sorts of suggestions for ways to hold the coil, but the one that works best for me is this little jig made from scrap wood.

It's about 2 inches wide and 4-5 inches long with a groove cut down its length to cradle the coil of wire and a thin stop attached to the front end.

To cut the rings, thread your saw blade through the coil, hold the coil down in the groove and against the front stop, and saw through the bottom of the coil at about a 40 degree angle.

Don't forget to use some wax or cutting lube. It really does make a difference. If you don't believe me, do an experiment while you're cutting a lot of rings. Count how many rings can be cut before the blade breaks. First, do the test

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Mike Nelson csrockguy@yahoo.com

The other night I was channel searching for something to fill the sound of an office room as I was thinking about the Black Rock Desert in Utah. A friend was traveling through the area and was interested in seeing some geology, and perhaps identifying a few plants. Suddenly I came upon the movie *Cool Hand Luke* ("what we got here is...a failure to communicate") (Fig. 1). Those of us at a certain age will always remember the performance of Paul Newman as Luke and Luke Askew as Boss Paul. By the way, Boss (now known as Sheriff Cooley played by Daniel von Barger) with his sunglasses reappeared in another much later movie with George Clooney entitled *Brothers Where Art Thou*. Both movies are among my favorites with the latter requiring a weird sense of humor to really enjoy the nuances. But *Cool Hand Luke* appeared in 1967; that was 51 years ago. Wow.



Fig. 1. Communication skills seemed lacking.

The year 1967 was monumental for me---no I did not participate in the Summer of Love; however, in a space of two weeks I graduated with my M.A. from the University of South Dakota, drove to Kansas and married (spouse still with me), and then drove to Salt Lake City (*And I'm bound to keep on riding, and I've got one more silver dollar*---Allman Bros Band) where I started doctoral work at the University of Utah. As I tell my children (and anyone else who will listen), it was an interesting time in our nation, and the world. Nearly a half million people were serving our country in Southeast Asia and several were my friends, some of whom did not return alive.



Fig. 2. Getting ready for USD 1967 Homecoming parade, downtown Vermilion. Yes, I had a collection of narrow ties. Photo courtesy USD Archives and Special Collections.

The Middle East was in flames again as Israel tangled with Egypt, Syria, and Jordan in the Six Day War. Things haven't changed much today except the weapons have become deadlier and powerful and certainly more expensive.

On the social scene discotheques appeared, even a few popped up in Salt Lake City, where young ladies danced in suspended cages. Say it ain't true dad. Yep, I hate to say it, but your mother and I actually observed this sort of behavior while rocking to Grace Slick and Jefferson Airplane belting out *Somebody to Love* and *White Rabbit*. But don't worry son, we did not tie dye our tee shirts! And very seldom did we visit an actual establishment that served alcoholic beverages and provided a live band since our personal income was rather low! That fact was not lost on my fellow grad students and we were all in the same boat. So, it was three quarts of beer for a buck and a gallon of cheap red wine to accompany our spaghetti dinners.



Fig. 3. I never made it to the Whiskey a Go Go in Los Angeles although star singer Johnny Rivers was one of my favorites. Here the Go Go Dancers perform the Watusi in a cage suspended from the ceiling. Photo courtesy of the daily-mail.co.uk.

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On the academic side, it was field trips and field work that excited all students. I mean, that is why we became geologists. At times the trips were led by professors, at times by advanced grad students, and at times by someone saying "we are heading to----somewhere---and leaving at six tomorrow morning. Grab your tents and supplies and meet us at the corner of -----."

*Walk along the river, sweet lullaby, it just keeps on flowing,
It don't worry 'bout where it's going, no, no.
Don't fly, mister blue bird, I'm just walking down the road,
Early morning sunshine tell me all I need to know*

RIP Gregg Allman

On one of our trips, heading to the San Rafael Swell, we stopped near Soldier Summit (US 6 from Spanish Fork to Price, Utah) at the former site of Colton. Yes, Colton is still listed on the maps and a "general store" is present (sometimes open, often not) but that is "new Colton." The "old Colton" was a little to the west and had the original name of Pleasant Valley Junction. It was first constructed in the early 1880's as a stopping point for the newly built Rio Grande Railroad. Pleasant Valley Junction provided coal and water to refuel the engines that hauled coal cars from Price over the pass to Spanish Fork/Provo. The area around Price has almost unlimited (it seems) supplies of Cretaceous-age coal. In addition to the Price area coal, the hills around Pleasant Valley Junction, known as Pleasant Valley, also produced coal, transported by a spur line, for shipment to the west and for use as fuel for the train. By around 1897/1898 Pleasant Valley Junction had morphed into a sort of booming town and was renamed Colton (as best that I can tell from the history books the name honors a person associated with the railroad). Evidently the town started shipping local agricultural products, ice (in the winter), and a strange new and rare hydrocarbon from some local mines, ozokerite.

Ozokerite, a waxy hydrocarbon, had been known from the Soldier Summit/Colton area since the mid-1880s, but serious mining did not take place until after the turn of the century. The depth of the mine shafts was reported by Taft and Smith (1905) to be in excess of 200 feet with several lateral drifts following veins ranging from a few inches to three feet in thickness. Small powered hoists (steam, I presume) were used to transport the wax to the surface. In addition, some shafts started at the surface and simply followed the veins into the host rock fractures.

Taft and Smith (1905) further noted that the distilling location consisted of a steam boiler and engine, a crusher, and steam-heated vats with narrow bottoms. The host rock and the ozokerite were crushed and run into the long vats containing water at boiling temperatures. The ozokerite begins



Fig. 5. Google Earth © image of the Colton area. Soldier Summit is just to the north of the upper border along US 6 leading to Spanish Fork/Provo. Price is to the south on US 6. Consult a road map of Utah.



Either Colton or Pleasant Valley Junction during the heyday of wax mining. Photo courtesy of Utah Historical Society.

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to melt at ~ 136 degrees F while the crushed host rock waste was driven out of the narrow-bottom vats by a revolving screw. The floating ozokerite was skimmed off, placed in pans, cooled, and then remelted to remove all moisture.

Ozokerite (AKA wax, wax stone, earth wax, crack wax, ear wax, blister wax, paraffin wax, paraffin, pietricikite, and others) is one of those strange and interesting solid bitumens found in Utah, and in other places in the world. However, Utah seems to have the greatest variety in the United States: kerogen in oil shales; ozokerite (ozocerite), albertite, ingramite, glance pitch, gilsonite, tabbyite, asphaltic (tar) sandstones, argulite, asphaltic limestones, wurtzilite, liverite, elaterite (Hunt, 1963) and Chinese Wax (Ritzma, 1975); most bitumens are associated with the Tertiary Green River Formation in the Uinta Basin. Generally, the bitumens are solids with low melting points; however, some are essentially heavy liquids as they “ooze” out of rocks---often depending on ambient temperatures. The bitumens generally are distinguished from one another by their fusing points (point at which they melt), solubility in carbon disulfide, physical characters, specific gravity, sulfur content, Infrared Absorption Spectra, refractive indices, and the hydrogen/carbon ratio. Hunt (1963) arranged the Utah bitumens into four groups according to their increasing fusing points: waxes (ozokerite), asphalts (tabbyite, liverite, liquid gilsonite, argulite), asphaltites (gilsonite, grahamite, glance pitch, asphaltic sandstones, asphaltic limestones), and pyrobitumens (wurtzilite, ingramite, albertite). However, none of these bitumens meet the criteria that would qualify them as true minerals.

Ozokerite in the Colton/Soldier Summit area is generally black to brown-black in color often with inclusions of yellow-green resinous material (pure ozokerite from several European localities is colorless). It does not bend but seems malleable; at times the material has a petroliferous odor. It is soft and can be scratched with a finger nail, cut with a knife and has a “greasy feel.” The hydrogen/carbon ration is about 85/15 and ozokerite has a very low specific gravity of around 0.8-0.9 (water is 1.0). The melting point of ozokerite is low as it begins to melt at ~136 degrees. This low melting point allowed the early miners to boil the mine-run ozokerite in water and skim it off the surface to help eliminate the impurities.



Fig. 6. Ozokerite collected near Colton, Utah. Note the shiny surface that creates a “slick” feel. Length is ~7.0 cm.

Hunt (1963) grouped the major bitumens of Utah (essentially the Uinta Basin) as oil shales, vein deposits, and bituminous sandstones and each group occurs in specific sedimentary facies associated with the Tertiary Green River Formation. The Green River rocks are lacustrine (lake), shoreline, fluvial (stream) deposits associated with intermontane basins in Utah (Uinta), Colorado (Piceance), and Wyoming (Greater Green River). The widespread oil shales are found in the lake rocks while the bituminous vein deposits (including ozokerite) are associated with fracture systems in the shore facies. Rocks of the subaerial facies seem devoid of bitumens. Hunt (1963) further believed these solid bitumens started as heavy oils and migrated along fault zones, or migrated updip, from the lacustrine facies into the shoreline facies. He pointed out that some wells in the Basin produce oil from fractured bituminous shale in the Green River Formation and the “heavy fraction” is similar in composi-



Fig. 7. Map showing location of Uinta and Piceance Basins. Daniels Canyon Summit is located in the far northwest corner of the Basin. Map courtesy of pic2fly.com.

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tion to ozokerite. Of course, the liquid fractions evaporated and oxidized leaving behind the wax as the oil morphed into ozokerite (and other vein bitumens).

A similar vein bitumen situation occurs near the summit of Daniels Canyon, the major mountain pass on US 40 trending from Heber City to Vernal, Utah. Ritzma (1975) reported the Chinese Wax Mine produces a hydrocarbon that ranges from very viscous heavy oil to a very soft wax (depending on ambient temperature) that fills the pore spaces of the badly fractured host rock. Composition of the hydrocarbon is similar to ozokerite. Several decades ago, before my claustrophobia blossomed, I somewhat explored parts of the mine and noticed a black substance oozing from the rock. Later I found that the mine was first claimed in 1909 and actually produced, by retorting or distilling, a high-grade oil that was used in automobiles, lamps and the candle wax industry. The commercialization of the mine seemed short lived.

The really interesting aspect of the Chinese Wax Mine is the geological setting--it is located on the far west margin of the Uinta Basin where the Pennsylvanian-Permian Oquirrh Formation crops out. The Oquirrh is present due to a large thrust fault (the Charleston) "transporting" the rocks from several tens of miles to the west. In other words, the marine rocks of the Oquirrh were originally deposited in a Pennsylvanian-Permian Basin west of Salt Lake City and "thrust" along a low angle fault many miles to the east. The oil evidently migrated along a fracture zone from the lacustrine facies of the Green River Formation several miles toward the center of the Uinta Basin (Ritzma, 1975).

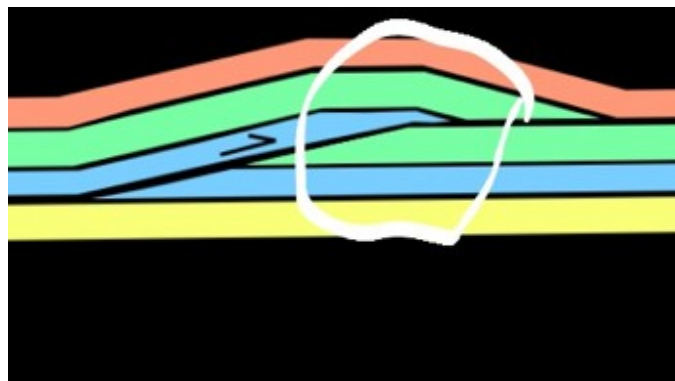


Fig. 8. Diagram of a thrust fault with compression from the left pushing older rocks over younger rocks. Note the blue layer is older than the green layer. However, in the area of the white circle note the older layer (blue) is sitting on the younger layer (green). Public Domain sketch courtesy of Mikenorton.

Thrust faults are one of the wonders of geology. In describing these magnificent features Hintz (2005) stated: *lifting a brick house off its foundation and putting it on wheels to move it somewhere else is something we've seen and can understand. But taking a stack of rock strata 2 or 3 miles thick and several or even hundreds of miles long and wide and moving it 50 or 60 miles on its own bedding planes or fracture zones and having it arrive at its destination in some coherent shape is something we find almost unbelievable! Yet evidence this commonly happens during an orogeny is undeniable...* In Utah, these Cretaceous thrust faults were caused by crustal shortening due to plate collision and compression to the west.

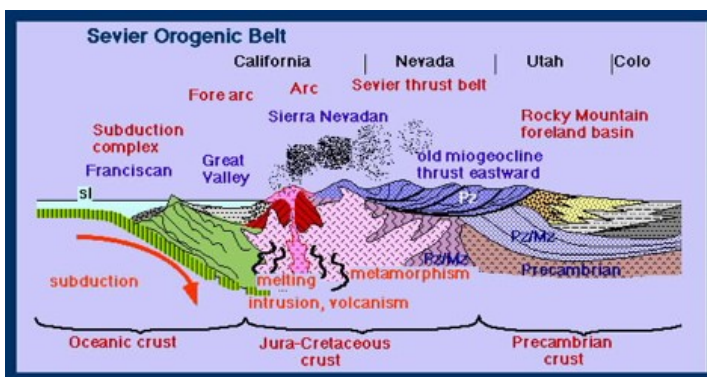


Fig. 9. This diagram, courtesy of the University of Maryland, illustrates tectonics in the western US during the Jurassic and Cretaceous--the Sevier Orogeny. A Pacific plate was being subducted under a continental plate (note red arrow). Crustal melting, volcanism, metamorphism, and large-scale intrusions formed the rocks of the Sierra Nevada Mountains. Further to the right note how the compression, caused by the subduction, caused large thrust faults that moved older rocks over younger rocks.

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Ozokerite originally was used in candle making (a higher melting point), mixed with rubber (not synthetic) to construct electrical insulators, boot polish, a skin balm, and distilled into light oil. Today all ozokerite is obtained by distilling petroleum products and is mainly used in various beauty products as a binder, emulsion stabilizer or a thickener. It is used to add strength to lipstick and compact eye shadow. It is also found in some brands of skin care lotions, suntan lotions, and fragrance. Perhaps one should check the label on makeup; however, it may be listed as ceresin, a "purified" ozokerite. I did a quick check at the local pharm and noted that several brands of lip balm contained ozokerite. Ain't geology fun?

REFERENCES CITED

- Hintze, L.F., 2005, Utah's Spectacular geology: Department of Geology, Brigham Young University, Provo, Utah.
- Hunt, J.M., 1963, Composition and origin of the Uinta Basin bitumens in Oil and gas possibilities of Utah, re-evaluated, A.L. Crawford (Ed.), Utah Geological and Mineralogical Survey, Bulletin 54, Paper 24.
- Ritzma, H.R., 1975, The Chinese Wax Mine; A unique oil-impregnated rock deposit: Utah Geology; vol. 2, no. 1.
- Taft, J.A., and C.D. Smith, 1905, Ozokerite deposits in Utah: Contributions to Economic Geology.

*There's a dance called the Watusi
it's out of sight,
First you slide to the left then to the right.
The Watusi is out of sight,
You slide to the left,
then to the right.
Take two steps up and keep it tight.
And do the Watusi,
it sure is a sight.
Come, on try, sugar pie,*

OK, so the lyrics seem a little lame compared to lyrics today (often vulgar). But this song (sung by The Vibrations) and accompanying dance were "really big" in the 1960s. Note one of the photos (Fig.3) above. So my advice: come on sugar pie---Road Trip!

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without lube, and then do it again while adding some lube to the blade after cutting every 8-10 rings.

It's the best way I've ever found to hold the coils easily and securely. If the coil doesn't move, you break fewer blades. And it is safer than some other techniques because you are cutting away from the fingers.



For more tips or to learn new jewelry skills see
[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

PEBBLE PUPS CORNER



CSMS Pebble Pups & Junior Group

The Junior Group & Pebble Pups meet at the Senior Center every third Thursday at 5:30 PM until 6:15 PM or so. We only meet during the academic year, and we include January. So, it is Sept through May.

Special announcements and field trips are noted on our blog:

<http://pebblepups.blogspot.com>

and through the CSMS website:

<http://www.csms1936.com>

CSMS member Ben Elick to present at the July 19 General Assembly

Join CSMS member Ben Elick for an exclusive, one-of-a-kind presentation of repeat photography of the Pikes Peak region. Ben shared a glimpse of the initial stages of this project last winter to the members. Now Ben will share the complete presentation that he made in April at Iowa State University during the Geological Society of America North-Central Section Meeting. As presenting author of this work, Ben has received regional and national recognition by the Geological Society of America.

Ben Elick and Steven Veatch have been building an archive of historical photos of the Pikes Peak Region and have then revisited the exact spots where these pioneer photographers stood. This practice, known as repeat photography, shows many things to scientists such as landscape, climate, and ecosystem changes, and reveals the effects of human and non-human disturbances to the land. There are several geological applications of repeat photography that Ben will also show.

The result from this work is striking when historical images are paired with their recent photos. By using this powerful method of photo pairs, that spans from decades to more than a century, you will be able to step into a “time machine” that shows the natural and historical changes of the Pikes Peak region through time. Do not, under any circumstances, miss this lecture. Come early for a good seat.



Ben Elick conducting field studies at Rainbow Falls near Manitou Springs. Photo by S.W. Veatch.

2018 CSMS Officers

Sharon Holte, President

Randy Hurley, Vice-President

Open, Secretary

Ann Proctor, Treasurer

Adelaide Bahr, Membership Secretary

Larry Jones, Editor

John Massie, Member-at-Large

Laurann Briding, Member-at-Large

Ernie Hanlon, Past President

2018 CSMS Chairpersons

Randy Hurley, Program Coordinator,

Mike Webb, Field Trip Co Coordinator

Ernie Hanlon, Field Trip Co Coordinator

TBD, Science Fair Chair

Frank & Ellie Rosenberg, Librarians

Mark Schultz Social Committee Chair

Ann Proctor, Store Keeper

Michael Kosc, Webmaster

Lisa Kinder, Facebook Keeper

Mike Nelson, Federation Representative

TBD, Federation Representative

SECRETARY'S SPOT

by Sharon Holte

General Meeting Minutes for the
Colorado Springs Mineralogical
Society — 06/21/2018

The meeting was called to order by President Sharon Holte at 7:09 p.m. The Pledge of Allegiance was recited.

Randy Hurley, our vice-president, introduced Dr. Robert (Bob) Carnein, who gave a presentation on "Twining and Twined Crystals".

A break was taken to enjoy all of the goodies! Coffee was provided by Mt Carmel.

We had about 45 members in attendance and gave out five great mineral specimens.

Reports by the Officers:

President - Sharon Holte: asked for approval of the minutes for May. They were moved and passed.

Sharon Holte stated that Mike is our representative for the RMFMS meeting in South Dakota. Mike is taking care of the necessary paper work.

Vice President - Randy Hurley: reported July 19 meeting speaker is to be Steve Veatch.

Secretary – Sharon Holte: Sharon asked for someone to make the reservations at the Golden Corral for the August 16, 2018 CSMS picnic. No one volunteered. So, Sharon said she would again make the reservations. (There were several chuckles).

Membership Secretary – Adelaide Behr: stated that there were many new members, mostly from the Gem and Mineral Show.

Editor – Larry Jones: Sharon asked Larry "by when" will he need the minutes. He answered, "Before June 26 or by Friday June 29."

Member-at-Large – John Massie, Member at Large – Laurann Briding, Past President – Ernie Hanlon: nothing at this time

Satellite Groups:

Crystal Group – Kevin Witte, Faceting Group – John Massie: these groups are not meeting during the summer.

Field Trips – Ernie Hanlon: Wagon Wheel was canceled due to lack of interest. Ernie will lead the Peridot trip on July 7 and the Devil's Head trip on July 28.

Fossil Group – Jerry Suchan: this group is not meeting in July due to the holiday

Jewelry Group – Bill Arnson: Absent. Jewelry is by appointment only.

Lapidary Group – Sharon Holte: by appointment only. She is waiting to purchase oil at the Buena Vista show before setting up the 22" saw.

Library Group – Frank and Ellie Rosenberg: showcased several interesting books

Store Keeper – Ann Proctor: A few items were sold at the show.

Old Business: none

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2018 Satellite Group Chairpersons

Crystal, Kevin Witte/Bob Germano

Faceting, John Massie/Doreen

Fossil, Jerry Suchan/Joyce Price

Jewelry, Bill Arnson

Lapidary, Sharon, Holte

Pebble Pups, Steven Veatch/
Betty Marchant

2018 CSMS Liaisons

Florissant Fossil Beds
National Monument, Steven Veatch

Western Museum of
Mining & Industry, Steve Veatch



At our General Assembly meeting, June 2018, Educator, Serious collector, and our own club member, Bob Carnein, gave a stunning presentation on Crystal Twins and Twinning.

— Photos courtesy Frank Rosenberg

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New Business: Ernie Hanlon would like to have all the Board Minutes put in the *Pick & Pack*. The discussion determined the membership does not want them in the *Pick & Pack* for various reasons. Ernie would like to have the Treasurer's report be public. There was some discussion. Sharon will reread the Constitution. This item was tabled until the next meeting.

The meeting was adjourned by our President at 8:50 p.m.

Respectfully submitted by Sharon Holte, Acting Secretary

CSMS 2018 Upcoming Field Trips

Robert Michael #1 Peridot Mine. July 7

Leader: Ernie Hanlon

Contact: eehanlon@netzero.net

Devils Head Area. Douglas, Co. July 28

Leader: Ernie Hanlon

Contact: eehanlon@netzero.net

Hartsel Blue Barite Mine. August 11

Leader: Billy Bell

Contact: magik4@yahoo.com

Warfield Fossil Quarries. Kremmerer,

Wyoming. August 25

Leader: Mike Webb

Contact: mwebbstudent@yahoo.com



GEOLOGY WORD SEARCH

AGATE
 ASSAY
 BASALT
 BAY
 BEDROCK
 CANYON
 CAVE
 CAVERN
 CHERT
 CIRQUE
 CLAIM
 CRATER
 CRYSTAL
 DESERT
 DIG
 DIKE
 EROSION
 FAULT
 FIORD
 FLUORESCENT
 FOSSIL
 GLACIER
 GEODE
 GEOLOGY
 GOLD PANNING
 LAVA
 LODE
 MAGMA
 MANTLE
 MESA
 METEORITE
 MINE
 MINERAL
 OCEAN
 ORE
 TUNNEL
 SEA
 SLOPE
 TUFA
 VALLEY
 VOLCANO

ONYX
 RIVER
 ROCK
 SEDIMENTARY
 SOIL
 USGS (United States Geological Survey)
 VEIN

U	S	G	S	B	G	E	O	D	E	G	X	Y	N	O
V	A	E	C	A	T	L	F	I	O	R	D	E	A	N
Y	A	C	R	Y	S	T	A	L	O	C	C	F	G	A
G	R	L	E	O	R	E	D	C	I	L	A	V	A	C
O	I	A	L	K	S	P	K	R	I	U	V	M	T	L
L	V	R	T	E	A	I	Q	M	L	E	E	E	E	O
O	E	E	H	N	Y	U	O	T	S	S	R	N	L	V
E	R	N	N	E	E	A	Q	N	A	L	N	I	E	V
G	M	I	A	L	C	M	S	G	I	U	O	M	Y	T
T	N	M	A	E	A	E	I	S	T	S	Y	P	T	U
G	R	K	Q	N	C	D	S	D	A	R	N	L	E	F
C	E	E	T	I	R	O	E	T	E	M	A	G	M	A
A	T	L	S	K	F	L	U	O	R	S	C	E	N	T
V	E	T	R	E	H	C	C	R	A	T	E	R	H	S
E	F	E	K	I	D	Y	A	B	E	D	R	O	C	K

Thank you to life member Bob King for submitting this word search

Our Staff...

Larry Jones—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 **20th 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. Editor 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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CSMS is an incorporated nonprofit 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 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 Mt. Carmel Center of Excellence, 530 Communication Circle, Colorado Springs, CO 80905. (Starting (9/21/2017) **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: 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.

Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100, *****Application is on the web site.

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Meeting or visit our web site: www.csms1936.com

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