PICK&PACK
THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society
Founded 1936
~ Lazard Cahn ~
Honorary President
"Pick & Pack"
Volume 62 No. 6
July 2022

CSMS General Assembly

Thursday, July 21, 2022 7:00 PM
Mt. Carmel Veterans Center

Program Speaker:

Adelaide Rich

"Geologic Mapping of Florissant Fossil Beds National Monument"

A-L BRING SNACKS

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

In This Issue …

Adelaide Rich: "Geologic Mapping of Florissant Fossil Beds National Monument"

High-accuracy receivers, when paired with the National Park Service's GNSS corrections stations, can collect coordinate data with sub-foot accuracy. We are implementing this high-resolution technology to correct and improve on the current geologic map in Florissant Fossil Beds National Monument. This provides increased visitor usability, information on further developments within the park, and is an asset to the ongoing scientific projects within the park. The increased accuracy defines paleontological sites more clearly, which allows for better preservation and further discovery.

Credit: National Park Service, https://www.nps.gov/flfo/index.htm

Adelaide Rich is a native to southern Utah and developed a love for the parks at a young age. Through Southern Utah University's internship program, she began working for Florissant Fossil Beds National Monument in June 2022. She loves being in the field and participating in the preservation of the parks. She is a recent graduate of SUU with a bachelor's of geology and certification in GIS. She plans to attend graduate school after playing in the mountains.

CSMS Group Calendar

Jul '22	Aug '22						
13 Jul	2 Aug	Fossil Group	1st Tues	6:00 PM	East Library	Jerry Suchan	303-648-3410
7 Jul	4 Aug	Board Meeting	1st Thur	6:00 PM	Zoom	John Massie	719-338-4276
21 Jul	18 Aug	Pebble Pups	3rd Thur	5:30 PM	Mt. Carmel Center	David St. John	719-424-9852
21 Jul	18 Aug	General Assy	3rd Thur	7:00 PM	Mt. Carmel Center	John Massie	719-338-4276
28 Jul	25 Aug	Crystal Group	4th Thur	7:00 PM	Mt. Carmel Center	Kevin Witte	719-638-7919
By appt	By appt	Faceting Group	By appt	By appt		John Massie	719-338-4276
By appt	By appt	Lapidary Group	By appt	By appt	Sharon's House	Sharon Holte	719-217-5683

CSMS Club Events

July 22: Field trip to The Detroit City Mine. This is a tour only - no collecting - of the world class Rhodochrosite mine owned by Brian Lees. This was an outgrowth of the Sweet Home Mine. This field trip is only available on Friday July 22 - Limit of 10 people. if interested contact Frank Rosenberg 719-271-7440 fs_rosenberg@hotmail.com

Aug 13: The annual CSMS Picnic at the Western Museum of Mining and Industry (WMMI), starting at 10 AM, we will eat around 11:30. It is pot luck. Bring a dish to share with everyone. Bring your own non-alcoholic beverages. If you want, you can bring hobby items to show off, trade, or sell. The picnic will be over around 3 PM. You will also be able to tour the Museum - bring your CSMS club card for free entry.

Field Trip Schedule
July 9 - Club Claim
July 16 - Smoky Hawk Mine
August 6 - Topaz Mountain
September 10 - Mt Antero
September 24 - Club Claim

For questions contact:
atkinson.kyl@gmail.com
(Kyle Atkinson)

Community Events

Nothing to report.

Secretary's Spot

John McGrath

2022 CSMS Officers

John Massie, President
Rick Jackson, Vice-President
John McGrath, Secretary
Ann Proctor, Treasurer
Adelaide Bahr, Membership Secretary
John Emery, Editor
Chris Burris, Member-at-Large
William Meyers, Member-at-Large
Sharon Holte, Past President

2022 CSMS Chairpersons

Rick Jackson, Program Coordinator
John Massie, Show Vol Coordinator
Kyle Atkinson, Field Trip Coordinator
Vacant, Science Fair Chair
Frank and Ellie Rosenberg, Librarians
Mark Schultz, Social Committee Chair
Ann Proctor, Store Keeper
Lisa Cooper, Show Chairman
Lisa Cooper, Webmaster
Lisa Cooper, Facebook Keeper
Mike Nelson, Federation Rep

CSMS General Assembly Minutes

No minutes to report (General Assembly was cancelled)

President's Corner

John Massie
CSMS President

2022 Satellite Group Chairs

Kevin Witte/ Bob Germano, Crystals
John Massie/ Bertha Medina, Faceting
Jerry Suchan/ Joy Price, Fossils
Vacant, Jewelry
Sharon Holte, Lapidary
Vacant, Micro-mount
Vacant, Photography
David St. John/ Hair/ Elick, Pebble Pups

2022 Liaisons

Florissant Fossil Beds National Monument:
S.W. Veatch

Western Museum of Mining and History:
S.W. Veatch

Presidential Matters

A message from CSMS President John Massie:

I want to remind every one about the August Picnic on August 13, 2022, the picnic will be held at the Mining Museum, WMMI, starting at 10 AM, we will eat around 11:30. It is pot luck. Bring a dish to share with everyone. Bring your own non-alcoholic beverages. If you want, you can bring hobby items to show off, trade, or sell. The picnic will be over around 3 PM. You will also be able to tour the Museum.

I also want to thank every one who helped put on a successful show. I really want to thank Lisa Cooper for organizing the show. I also want to thank the following members for helping:

Set-up volunteers: Randy Hurly, Christopher Burris. Alex Feld, John Munson, Mike Nelson, Sharon Holte, Bob and Carol Falls, Linda Atkinson, Kyle Atkinson, Bob Gerrmano, Bob Landgraf, David St. John, Bill Kern, John McGraff.

Ticket Sales Volunteers: Mike McCarty, Ray Quinn, Barbara Middlemist, Kaye Thompson, Tom and Ayumi Towler, Rick Jackson, Val Babitz, Rachel Williams, Robbie Thompson

Hospitality Table: Brenda Perkins, Ray Quin, Rick Jackson, Bill Myers, Sara Frear

Silent Auction: Frank and Ellie Rosenberg, Randy Hurley, Chris Lambert, Jerry and Brenda Perkins, Shelby Shaffer, Bart Zobel.

Pebble Pups/Earth Scholars: David St. John, Betty Merchant, Steve Vetch, Blake Reich, Gavin Seltz

Tear down volunteers: Christer Burris, Mike McCarty, Alex Field, Kyle Atkinson

I took the volunteers names off my signup sheets, so if I missed any one my apology.

Congratulations to Jack Null for winning the Peoples Choice Award for their favorite showcase.

Thank you to Bob Landgraf for the wonderful florescent display he brought to the show. See everyone at the July 21, 2022 Meeting.

John Massie
CSMS President

Right: CSMS President John Massie (far left) presented a check to the Friends of the Florissant Fossil Beds at the Pikes Peak Gem, Mineral and Jewelry Show, June 2022. *Photo: F. Rosenberg*

Federation News Post

American Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies

American Federation Rockhound Information

- William Holland School of Lapidary Arts (Young Harris, GA)
- Wild Acres Retreat (Little Switzerland, NC)
- Bureau of Land Management
- Crystallography
- U.S. Geologic Survey Topographic Maps
- TopoZone - Topographic maps of the U.S. online

Local Club Shows

- Notify other clubs in our federation about your upcoming show, *email the editor*
- For Member Club Show general information go to the *RMFMS Club Lists* page and check the club or city you are interested in.
- Want to see the shows in your state? Visit the Rock and Gem Magazine's Show page and select the state you are interested in: *Rock and Gem Magazine's Show Page*
- Please use the following link to the RMFMS Editor Google Drive to download the Rocky Mountain Federation News: *RMFMS Editor Google Drive*
    - The RMFMS Newsletter is also available at *RMFMS.org*

About the AFMS - A non-profit educational federation of seven similar regional organizations of gem, mineral and lapidary societies. The purpose of AFMS is to promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and other related subjects, and to sponsor and provide means of coordinating the work and efforts of all persons and groups interested therein; to sponsor and encourage the formation and international development of Societies and Regional Federations and by and through such means to strive toward greater international good will and fellowship. Founded in 1947.

About the RMFMS - A non-profit educational organization. The purpose of the Rocky Mountain Federation is to have a close association of all clubs in the Society to promote the study of earth sciences, including the lapidary arts, the study of fossils and paleontology, and related crafts. The RMFMS was organized in 1941, and held its first annual convention at the Argonaut Hotel in Denver, Colorado. There were 16 organizations in attendance. The RMFMS became one of the original four founders of the American Federation of Mineralogical Societies when it was organized in 1947.

Wild Thing: Traversing Buffalo Gap and Looking for the Unkpapa Sandstone

Mike Nelson
csrockguy@yahoo,com

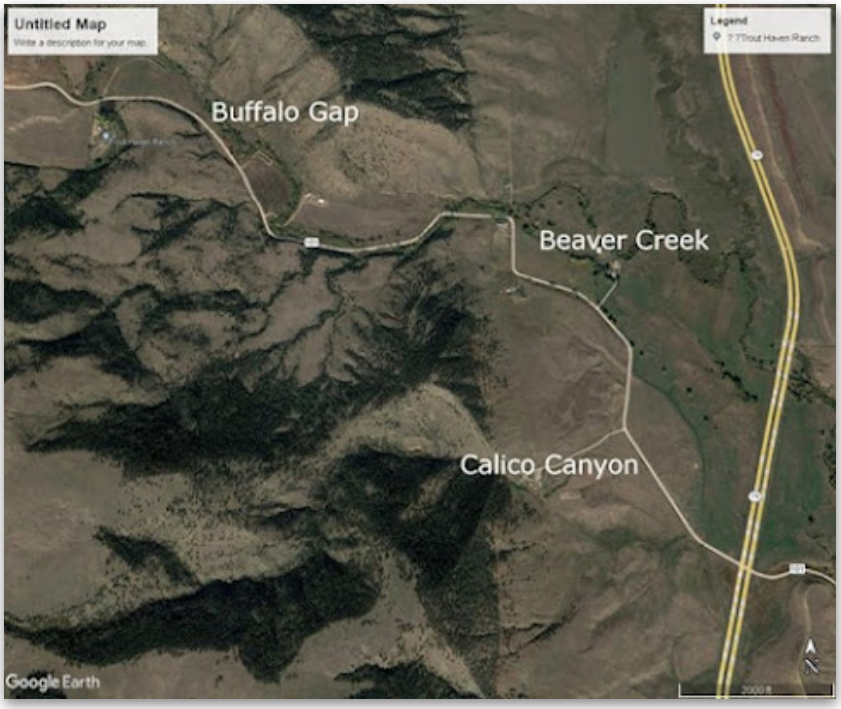
Above: Getting ready for the Homecoming parade on the main street of Vermillion, SD ca. mid 1960s. *Photo courtesy of southdakotamagazine.com*

In spring 1965 I made a critical decision or two—what to do with my life after college graduation in Kansas (BS Geology). I had pretty much decided during the fall semester that I wanted to continue my geology education; there was much to learn, and I was excited to explore the opportunities. So, I applied for admittance to several graduate schools with the knowledge that I could not continue my education without financial scholarship/fellowship assistance. Much to my surprise I received some positive replies. These offers came from a variety of institutions ranging from giant NCAA Division 1 institutions down to smaller state and private colleges. That led to my critical decision in spring 1965—to attend the University of South Dakota (USD) in Vermillion (a college town that I really had never heard of)! So, it was off to the north land (at least north of my home in Kansas).

The decision to attend USD was one of those that was a "good one." Absolutely no regrets. I was a small-town kid who attended a smaller state undergraduate college and USD was situated in a small town and was full of small-town kids and a small graduate program—I think there were five of us. Students got much attention from the faculty.

Left: Back in the olden days, that would be late 1960s, the Charcoal Lounge (AKA Char Bar) was one of the anchors in downtown Vermilion (as seen in this 2017 photo--it looked the same in 1965). The Char Bar was a 21 establishment since it served "hard liquor." That meant the underclassmen were relegated to the "beer bars" such as the Varsity (**below**).

My roommate at USD for all two years was a small-town kid from nearby Minnesota. After graduation from a doctoral program, he had a very successful career with South Dakota School of Mines and Technology. During my recent trip to the Black Hills of South Dakota my mind drifted back to our grad school days as I drove through Buffalo Gap in the southern part of the Hills near Hot Springs. My current journey to that part of the Hills was three-fold: 1) to relive, at least in my mind, some of the field work associated with my thesis at USD; 2) to see if the Unkpapa Sandstone quarry was still open in Calico Canyon near the mouth of the Gap; and 3) to observe some nice roadside granite/pegmatite exposures near Wind Cave National Park.



Left: Google Earth© image of the start of Buffalo Gap with Custer County 101 following Beaver Creek westward. The major highway is SD 79 coming north from Rapid City and heading south toward Hot Springs. Calico Canyon, home of the Unkpapa Quarry, is the first major canyon coming off CC 101.

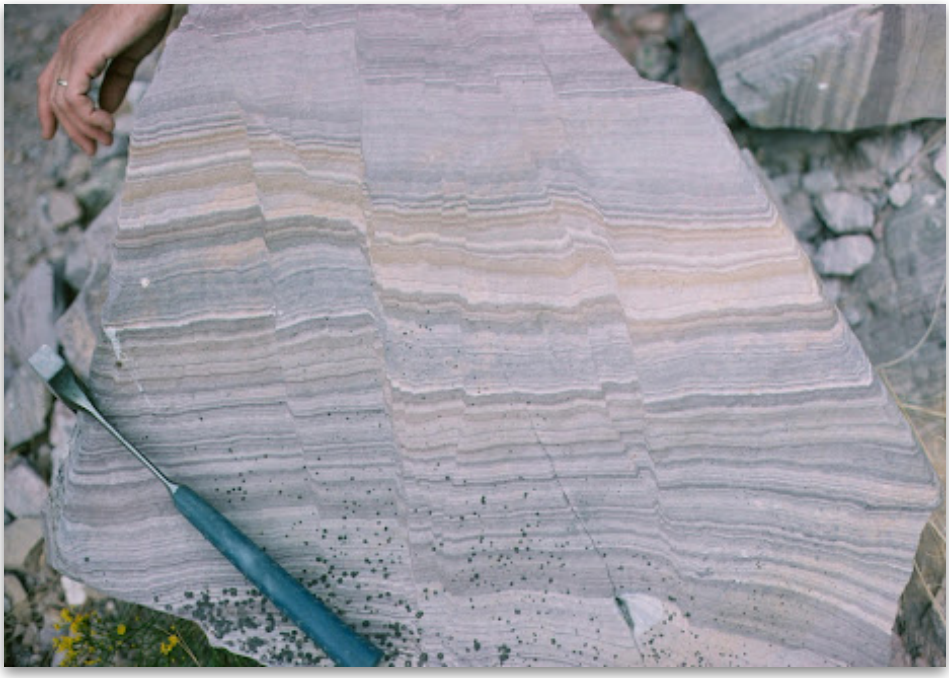
So, off I went from my campsite at Custer State Park on my sentimental journey towards Buffalo Gap south of Rapid City but north of Hot Springs. My head was filled with thoughts and images from the mid-1960s and I sang along with the rock and roll blaring from the satellite radio (*My baby does the hanky panky*) thankful that was not the AM station from long ago.

After reaching the turnoff to Buffalo Gap, I stopped my vehicle, turned down the radio, got out and breathed in the fresh air while contemplating important events in my life since that last trip 55 years ago. I remembered one of my mantras from an unknown author: *Life is a journey with problems to solve and lessons to learn but most of all experiences to enjoy*. Amen brother!

Unfortunately, my search for the quarry was unsuccessful as it had closed several years ago, and current landowners may not be interested in reopening (or allowing rockhounds on a sentimental journey). Fortunately, I had visited the quarry back in the 1960s and have a few sandstone specimens stuck on my rock shelf. What is so special about this sandstone? For starters, who could resist looking at rocks named the Unkpapa? The name was assigned to the stratigraphic unit by the famous geologist N.H. Darton as he studied and mapped the Hills in the early 1900s. "The type locality is in the ridges east and south of Hot Springs, Fall River Co, SD, on the Chadron arch in the southern Black Hills, where it reaches a thickness of more than 250 ft. The name is from Unkpapa Peak, sec 23, T6S, R6E, Custer County, SD near Buffalo Gap." (Darton and others, 1909). Actually, the word Unkpapa is a misrepresentation of Hunkpapa (Lakota: *Húŋkpapȟa*), one of the seven members of the Lakota tribe. The name *Húŋkpapȟa* is a Lakota word meaning "Head of the Circle." By tradition, the Húŋkpapȟa set up their lodges at the entryway to the circle of the Great Council when the Sioux met in convocation. They speak *Lakȟóta*, one of the three dialects of the Sioux language. (Access Genealogy, 2021). Sitting Bull (*Tȟatȟáŋka Íyotake*) and Gall (*Phizí)* were two well-known members of the Hunkpapa.

Second, the Calico Quarry has produced some fantastic specimens of banded sandstone described by Joe Hartman (1975) as "argillaceous, very fine-grained, massive quartz wacke sandstone; moderately indurated but friable, permeable, no indication of cement. Colors range from pale yellowish orange to grayish orange to pale red purple to pinkish gray. Color banding common, planar, curved, and *Liesegang*." The emphasis is mine as the rock produces slices commonly known as picture sandstone and at one time specimens were sold in virtually every rock shop and curio shop in the Black Hills and beyond (now replaced by picture sandstone from Utah). The better specimens were lavender in color and the banding often was displaced by numerous small faults.

Right: Unkpapa Sandstone cropping out in Calico Canyon, Black Hills, South Dakota. *Photo courtesy, and with permission, of Geodil and Joseph Hartman P00857 (Hartman Locality L96).*



Left: Unkpapa Sandstone from Calico Canyon showing several microfaults. *Photo courtesy, and with permission, of Geodil and Joseph Hartman P00855 (Hartman Locality L96).*

I also note that my ole roommate from USD, Jim Fox, helped pen one of the definitive papers on the Unkpapa in the Black Hills. In 1981 Szigeti and Fox assigned the Unkpapa to the Morrison Formation (Late Jurassic) as its basal member and interpreted its depositional environment as eolian (by wind). Outcrops of the Unkpapa are restricted to part of the Cretaceous hogback between Sturgis, SD, and Edgemont, SD, a distance of about 100 miles. The unit conformably overlies the Sundance Formation and underlies either the main part of Morrison or the Lakota Formations, both with gradational or disconformable contacts. The Unkpapa is thickest around southern end of Black Hills where in outcrop it ranges up to 267 ft near Hot Springs but decreases slowly northward until it pinches out near Sturgis.

Below: These hand-size samples of unkpapa were collected in summer 1966. The bottom two specimens had one side slabbed off. *Photos: M. Nelson*

Szigeti and Fox (1981), and Blakey and others (1988), believed the Unkpapa Sand-stone was correlative with sandstone beds at the base of the Morrison Formation cropping out on the western flanks of the Black Hills uplift in South Dakota and eastern Wyoming. The Unkpapa dune field apparently was surrounded by lacustrine (lake) environments represented by mudstone layers in the Morrison Formation. As the region subsided, the dune field was inundated and eventually covered by lacustrine deposits.

One of my questions about the Unkpapa was answered by Szigeti and Fox: what was the source of the sand in the unit? They noted that as the inland Sundance Sea (marine, Middle to Upper Jurassic in age) withdrew from the Black Hills region, the climate became arid to semiarid. Lacustrine and fluvial depositional systems were established on low-relief topography on which sediment of the Morrison Formation was deposited. At the same time, the Sundance Sandstone in an area of northwestern Nebraska, was being eroded and fine sand was being supplied to an eolian dune field which extended northward into low relief topography. These dune sands comprise the Unkpapa Sandstone, which overlies the Sundance Formation in the southeastern part of the Black Hills area. So, the Unkpapa sandstone is reworked Sundance Formation.

The Unkpapa often attracts attention due to its color banding commonly referred to as Liesegang Bands. These Bands are colored bands of cement, often containing authigenic minerals, that are secondary structures since they cut across normal bedding. Little is known about the mechanism creating these bands.

In the summer of 1966, I was working for the South Dakota Geological Survey and stationed in Chamberlain, a community on the Missouri River (now the location if I-90 crossing the River). During weekends I traveled to the plains/badlands immediately east of the southern Hills chasing “old river beds” (high level terrace gravels that had their source in the Black Hills). I often wondered if one of these ancient (late Tertiary) streams had come through Buffalo Gap.

Left: Truckin' on. South Dakota plains and badlands. Summer 1966. *Photo: M. Nelson*

The community of Buffalo Gap lies on the plains just to the east of the Hills. One author calls it a semi ghost town with a 100+ population. It first came into existence during the 1875-1876 Black Hills gold rush when a stage stop along the Sidney, Nebraska to Deadwood line was created. Ten years later the Fremont, Elkhorn, and Missouri Valley Railroad reached, and moved through, the stage stop, and a railroad station was built and christened Buffalo Gap. The Elkhorn, as the railroad was known, was a line established in 1869 running from Omaha, Nebraska, west to Chadron (the Cowboy Line) and a decade later had established a branch line from Chadron north through Buffalo Gap, Rapid City, and on to Belle Foursch at the northern end of the Hills.

The name, Buffalo Gap, came from a nearby (west) water gap where a small stream (Beaver Creek) flows through a valley where the Cretaceous hogback (upturned rocks) dip away from the core and flank the Black Hills on the east side. The Creek is an underfit stream and indicates the presence of a much larger stream in the geologic past. Early travelers noted that buffalo (Bison) used the gap to travel back and forth to the interior of the uplands, and for shelter in the winter. Today a gravel road traverses the gap and is a nifty drive over to the grasslands of Wind Cave National Park.

Above: At one time huge herds of buffalo (American Bison) grazed on the grasslands of western South Dakota, including the prairies in Wind Cave National Park.

Above and Right: A drive through Buffalo Gap will reveal rocks from the bright red Permian-Triassic Spearfish Formation up through the Triassic, Jurassic and Cretaceous.

At any rate, Buffalo Gap, the town, flourished in the late 1800s as a cattle shipping point for the nearby ranches. Population jumped up to 1200 persons. But like all good things the boom came to an end with drought, blizzards, overgrazing, dropping cattle prices, and closing railroads. The final kill came with the Great Depression and the Dust Bowl in the 1930s. Today the name lives on in the community, but mostly in the vast expanse of Buffalo Gap National Grassland.

Above: Map, Public Domain, showing location of Buffalo Gap National Grassland, southwestern South Dakota, managed by the United States Forest Service. Many of the collecting localities for the famous Fairburn Agates are located on the Grassland and therefore open for collecting by the general public.

Above: Buffalo Gap National Grasslands.

A drive through Buffalo Gap will lead you to US 385, a paved road winding among the grasslands of Wind Cave National Park where bison still roam freely. After officially leaving the Park heading towards Pringle the road drops down from late Paleozoic rocks to the Cambrian Deadwood Formation and finally to the Precambrian outcrops of pegmatites, schists, and granites that seem to beckon rockhounds off the road into parking areas in the wide ditches. I found many black tourmaline (var. schorl, a borosilicate) small prismatic crystals scattered around “hunks” that had fallen off the outcrops.

And so ends my 2021 sentimental journey in the southern Black Hills. The strains of *Wild Thing* (The Troggs) still reverberates through my mind!

Wild thing
You make my heart sing
You make everything groovy
Wild thing

Wild thing, I think I love you
But I wanna know for sure
So come on and hold me tight
I love you

Above: Black tourmaline from exposures along roadcut northwest of Wind Cave National Park. Width FOV ~3.0 cm. *Photo: M. Nelson*

“One day, I'd like to be an old man that tells the children about those dangerous days when rock n roll still existed. Today all of that is gone.

- Willy DeVille

References Cited

Access Genealogy, October 2021: https://accessgenealogy.com/north-dakota/hunkpapa-sioux-tribe.htm

Blakey, R.C., F. Peterson and G. Kocurek, 1988, Synthesis of late Paleozoic and Mesozoic eolian deposits of the Western Interior of the United States: Sedimentary Geology, 56 (1988) 3-125 3 Elsevier Science Publishers B.V., Amsterdam.

Darton, N.H., and C.C. O'Harra, 1909, Description of the Belle Fourche Quadrangle, South Dakota: U.S. Geological Survey Geologic Atlas of the United States Folio, Belle Fourche Folio, no. 164.

Szigeti, G.J., and J.E. Fox, 1981, Unkpapa Sandstone (Jurassic), Black Hills, South Dakota; an eolian facies of the Morrison Formation, in Ethridge, F.G., and Flores, R.M., eds., Recent and ancient nonmarine depositional environments; models for exploration: Society of Economic Paleontologists and Mineralogists Special Publication, Symposium, Casper, WY, June 3-7, 1979, no. 31, p. 331-349.

Pebble Pups
David St. John

CSMS Pebble Pups and Earth Science Scholars

Mineral of the Month Pyrite – Iron pyrite is also known as “Fool’s Gold” and is an iron sulfide mineral. Named for the ancient Greek “Pyr” for “fire” because sparks can be created when struck with another mineral. Pyrite is a common mineral that is found in all three rock forms: igneous, metamorphic, and sedimentary. Learn more and share.

Our Partnership with the WMM STEM Camp

I recently did a rock talk at the Brown Barn in the Western Mining Museum for their STEM Camp. About 25 campers attended all week long and learned a variety of STEM activities. On geology day the topic was the Rock Cycle and James Hutton “the Father of Modern Geology.” We created a rock cycle sample bag and Q and A session. WMM will have another STEM Camp in July so check it out, the spots are going quick.

Fun Facts: How do I buy minerals or fossils?

1. Look for items that make you happy or enhance your collections.
2. Know your limits, budget, create a list or plan.
3. See it in person, if possible, first but on-line purchases like eBay, Etsy, or Google buyer beware some places are not trustworthy.
4. Visit mineral/fossil shows as much as possible and look for local rock shops.
5. Be observant of prices, quality, and learn what a good deal is or bad purchases to avoid.
6. Like rockhounding finding fair prices for mineral/fossils can be an exciting challenge and the thrill of the hunt. Meeting good vendors can create a great relationship for future purchases.
7. Remember to have fun and keep your eyes open for finding the once in a lifetime find because chances are it may not be available next time.

Pebble Pups/Scholars meeting June 16 2022

We had two new families attend the meeting and due to technical issues, we had a fun meet and greet time with Cookies. We shared about future field trips in July (I will post Museum, and Corral Bluffs soon with specific details). One of these times might replace the Meeting on 7/21 at 5:30 or will meet at another time and location this month, so keep checking emails. We all shared stories about our favorite rock-hounding finds with friends and family. Our miscellaneous mineral sample box had some real nice surprises in it too. I showed some of my dad’s fluorite collection that I had out for the General meeting presentation. Please call if you have questions at 719-424-9852, fossilfun14@gmail.com

Summer Intern

CSMS is excited to welcome Adelaide Rich to general assembly July 21 2022, where she will tell us about her work at the Florissant Fossil Beds National Monument. Thanks so much to Adelaide for joining us. Thanks to Steven Veatch for his orchestration of the grant. He worked on it for many months and many hours, gathering information from the monument, writing the request, sending it to the board for their review, arranging for the presentation of the check, and then making arrangements for Mrs. Rich to speak at the CSMS general meeting this month. Thanks to Herbert W. Meyer, Ph.D., Paleontologist, U.S. National Park Service, Florissant Fossil Beds National Monument. We are so grateful to everyone.

CSMS Pebble Pups and Earth Science Scholars

What a Show This Year 2022 It Rocked!

A huge shout out to all that set up on Thursday and the tear down on Sunday and everything in between. Our Pebble Pups and Earth Science Scholars booth was constantly busy and our wonderful volunteers like Blake, Gavin, Betty, and Steve made it extra special. We gave away 15 pounds of polished gemstones in our GEM DIG. THANK YOU for all the donations from club members during the show there were too many to name, but you know who you are. We estimate about 200 lbs of samples were given to children 16 and under during the three-day show. The selfie wall of Jurassic Park and large dinosaurs was a smashing experience. The mini display helped our scavenger hunt kids to learn about many parts of Colorado rich mineral, rock, and fossil history. The crafts included puppets, making fossils, and creating a pet rock that hopefully is house trained. It was a good time and we reached hundreds of families that will potentially become members of our club. You Rock!

Above: CSMS Pebble Pup leader David St. John and a CSMS volunteer stand inside the CSMS Pebble Pup Program presentation tables they set up for Pikes Peak Gem, Mineral and Jewelry Show 2022.
Photo: F. Rosenberg

Left: Youngsters and toddlers explore the irresistible attractions awaiting them at the Pebble Pup tables at Pikes Peak Gem, Mineral and Jewelry Show 2022.
Photo: F. Rosenberg

Beaver Brook Station

Steven Wade Veatch

A recently discovered historic photograph (figure 1) reveals a Colorado Central Railroad locomotive at Beaver Brook station, located in Clear Creek Canyon in Jefferson County, Colorado. Beaver Brook was one of several depots and water stops in the canyon on the narrow-gauge line that went from Golden to the goldfields of Central City and Blackhawk.

Fig 1: The Beaver Brook station on the Colorado Central Railroad. This station was frequently washed out by Clear Creek. Debris from flooding is evident in the photo. Locomotive number five (visible on the dome behind the smokestack) was built in 1873 by Porter-Bell. This number places the photo date before 1885, when number five was changed to number 31. Two men are taking a break at the front of the locomotive. Photographer and photo date unknown. *Photo courtesy of the Cripple Creek District Museum.*

A gold rush to the area started in 1859, following gold discoveries in the gravel of Clear Creek. George A. Jackson made a strike early that year near what would become Idaho Springs, where Chicago Creek joins Clear Creek (Ubbelohde, et al., 2015). A few months later, John H. Gregory panned $80 in nuggets out of gravels of the North Fork of Clear Creek not far from Jackson's discovery (Abbot, *et al*., 1994). His location became known as Gregory Gulch.

Prospectors and miners streamed into the area. Soon Black Hawk, Central City, and Nevadaville were established (Ubbelohde, et al., 2015). These early discoveries launched the second largest gold excitement in the nation's history.

Prospectors, miners, and entrepreneurs developed access to the area. Edward Berthoud completed the Clear Creek Wagon Road by 1862. The Colorado Central Railroad followed in the 1870s and was extended through Clear Creek canyon in 1872 (Holden, 2016). The trip through the canyon was a wild ride. The train lurched and swayed as it slowly steamed along tracks above the creek. Its whistle pierced the air. Valve gears hissed, chuffed, and clanked. Wheels clacked on the rail joints in a rhythm that lulled the passengers into daydreams. When the train went around curves, the wheel flanges squealed and snapped riders out of their reverie. Cinders from the smokestack blew through open windows onto passengers who were packed into seats. The smells of coal smoke and lube oil from the locomotive filled the canyon.

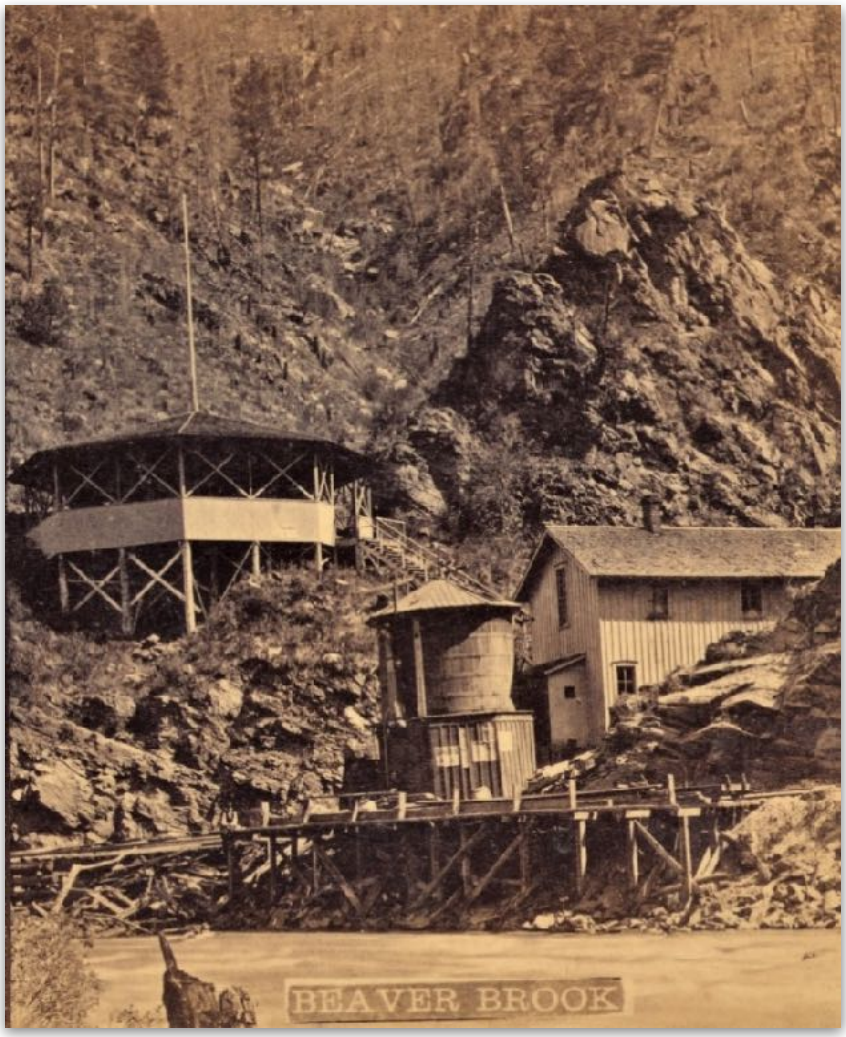


Fig 2: Photograph of the Beaver Brook station and water tank. A steep wooden staircase leads up to a picnic pavilion on the canyon wall next to the wooden station. *Photo by Charles Weitfle; photo source: Library of Congress, reproduction Number LC-DIG-stereo-1s01668.*

The Colorado Central Railroad also brought wide-eyed tourists who enjoyed waterfalls, wildlife, and cliffs as the train rolled through the scenic canyon. Beaver Brook station (shown in figure 2) was midway through the canyon and became a favored tourist stop (Abbott, et al., 2007). At Beaver Brook station, passengers marveled at the steep canyon walls, stretched their legs, enjoyed lunch, and accessed hiking trails (Holden, 2016). The railroad also built a picturesque pavilion perched on the slope above the station. Passengers spent time outside on the platform of the pavilion, where they ate picnics and enjoyed the views and the fresh mountain air.

Fig 3: A Colorado Central Railroad train has stopped on a bridge over Clear Creek at Beaver Brook station to take on water. People stand around the locomotive. *Photo source: Wikimedia Commons, New York Public Library, MFY Dennis Coll 90-F28 Record ID: 730960.*

This narrow-gauge line became part of the Colorado & Southern Railway and continued operations through Clear Creek Canyon until 1941, when the railroad became unprofitable and the rails were removed (Holden, 2016). Today, some say that if you listen carefully, you can still hear the whistle blow as the train winds its way through Clear Creek Canyon.

Acknowledgments
The author thanks Pete Doolittle for improving this article.

References and further reading
Abbott, C., S. J. Leonard, and D. McComb, 1994, Colorado: A History of the Centennial State: Niwot, University Press of Colorado.

Abbott, D., D.A McCoy, and R. W. McLeod, 2007, Colorado Central Railroad: Denver, Sundance Publishing.

Holden, G. S., 2016, Clear Creek Canyon. Colorado Encyclopedia, retrieved from https://coloradoencyclopedia.org/article/clear-creek-canyon on June 6, 2021.

Ubbelohde, C, M. Benson, and D. Smith, 2015, A History of Colorado: Portland, West Winds Press.

Rock Show Pics

Pikes Peak Gem, Mineral and Jewelry Show 2022

Thanks to all the volunteers

Lisa Cooper
Show Chairperson

Rock Show Pics

Pikes Peak Gem, Mineral and Jewelry Show 2022

Above: Rockhounds of all ages try their hand at panning for gems and minerals. *Photo: F. Rosenberg*

Above: Jack Null won the People's Choice Award for Display Cases. *Photo: F. Rosenberg*

PICK & PACK
THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Classifieds and Announcements

John Emery
Editor

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

Share your experiences, your new finds, or simply your enjoyment of our last field trip.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcome. The DEADLINE for items to be included in the next Pick & Pack is the **last day 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 can be submitted at resolutions above 200 dpi in ANY format.

Feature articles can be in MS Word or Mac Pages, preferably NOT pdf.

e-mail to the editor:
csmseditor@hotmail.com Mail to:
Pick & Pack Editor PO Box 2
Colorado Springs, CO 80901

The PICK & PACK is published ten (10) times per year (no issues in January or August). Unless otherwise marked, materials from this publication may be reprinted. Please give credit to the author and CSMS PICK & PACK.

Junior Geologist Summer Day Camp

Through the Junior Geologist summer day camp program, kids learn all about geology and physical science through hands-on outdoor activities. Junior Geologists will explore and discover the natural world around them with projects, games, and short hikes near the Garden of the Gods. At the end of the 5-day camp, kids will earn their certificate as a full-fledged Junior Geologist!

Recommended for ages 8 - 12. Limited to 10 campers.

Dates and Times:
July 25th - 29th 2022
Time: 9 AM - 12 PM (Monday - Friday)

Location: Fields Park, Manitou Springs

Camp Schedule:
Monday: Rocks and Minerals
Tuesday: Dinosaurs and Fossils
Wednesday: Streams and Floods
Thursday: Earthquakes and Volcanoes
Friday: Geology Hike and Gold Prospecting

Registration Cost: $215.00
Registration includes all project materials including a rock geode, fossil, and a selection of minerals for each camper to take home. Healthy snacks and bottled water provided. Instruction by two camp instructors ensuring a safe, fun experience!

Camp Director:
Eric Billmeyer is a Senior Instructor in the Geography and Environmental Studies Department at UCCS and the owner of Trail Gems Geology Tours. He has over 15 years of experience teaching a variety of geology and physical geography classes to a diverse range of students. Eric is excited to share his knowledge and help budding young geologists gain a greater appreciation of our amazing natural world.

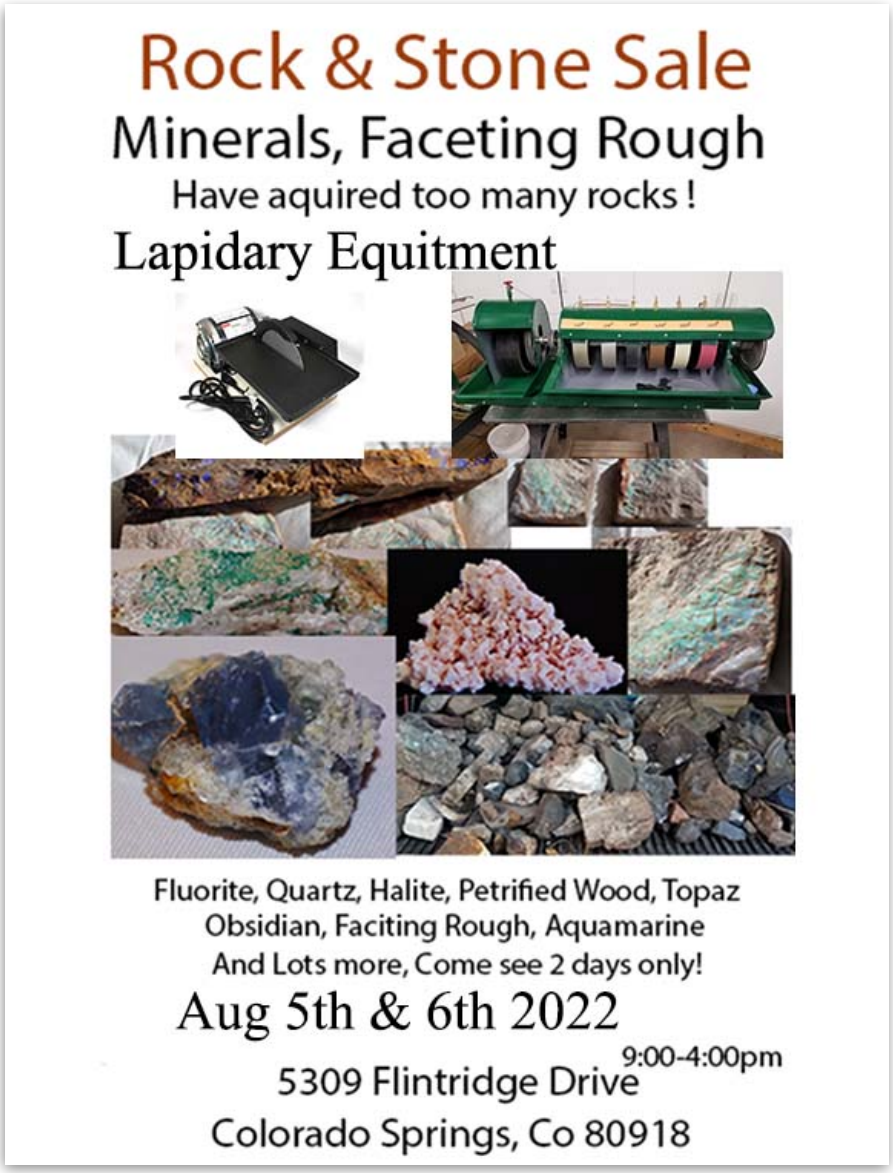
Please call or email Eric with questions about the camp and to register: 719-650-6659 or info@trailgems.com. This is not a CSMS-sponsored event, nor is there an affiliation between CSMS and Trail Gems Geology Tours.

Classifieds and Announcements

WANTED: 10” - 12” Lapidary Saw

If you have a lapidary saw for sale please contact:

Shane Riddle
Tater19@turbonet.com



Established 1936
MINERALOGICAL SOCIETY

Pick & Pack
P.O. Box 2
Colorado Springs, CO 80901-0002

CSMS is an incorporated nonprofit organization with the following 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 newsletter 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 PM at Mt. Carmel Veterans Service Center; 530 Communication Circle, Colorado Springs, CO 80905
- Visitors are always welcome.
- Individuals—$30, Family—$40, Juniors—$15, Corporate—$100.
- Find the application at the web site: www.csms1936.com**.** 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.

Meetings: 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, Lapidary Group, and Pebble Pups/ Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

Membership Benefits: 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* (carry your card), a year of learning and enjoyment, plus a lifetime of memories.

Colorado Springs Mineralogical Society is a Member of the following organizations:

- American Federation of Mineralogical Societies (AFMS) www.amfed.org
- Rocky Mountain Federation of Mineralogical Societies (RMFMS) www.rmfms.org