



THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society

Founded 1936

~ Lazard Cahn ~

Honorary President

"Pick & Pack"

Volume 64 No. 7

September 2024

CSMS General Assembly

Thursday, Sep 19, 2024 7:00 PM

Colorado Springs Christian School

4855 Mallow Road

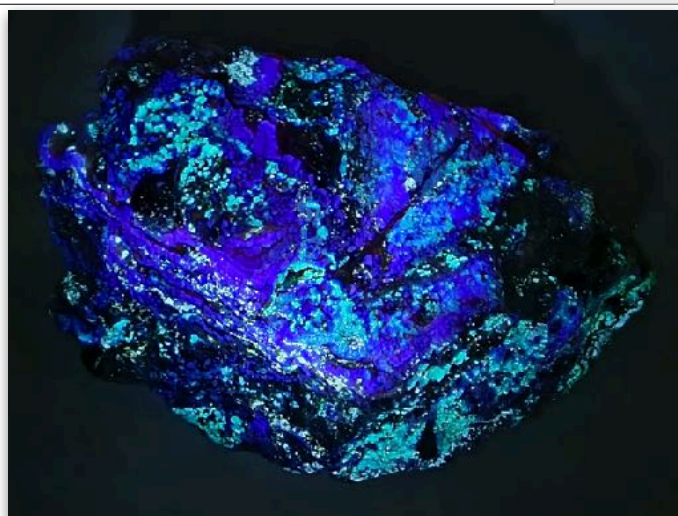
~ Alex and Shane ~
Trip Report: Red Cloud Mine, AZ

A-Z BRING SNACKS

Society members are always encouraged to bring specimens to general assembly to share and/ or for help with identification

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CSMS President Alex Field and VP Shane Riddle will report on their trip to Red Cloud Mine in Arizona, February 2024. Willemite, Calcite and Fluorite were the most common fluorescent minerals they found and they will bring samples to the meeting to display along with some of the wulfenite they collected. Come see Alex and Shane 7 PM, Sep 19 at the Colorado Springs Christian School.

COLORADO SPRINGS MINERALOGICAL SOCIETY PO BOX 2 COLORADO SPRINGS, COLORADO 80901-0002
Visit our website: <http://www.csms1936.com/>

CSMS Group Calendar

Sep '24 Oct '24

11 Sep	9 Oct	Fossil Group	2nd Wed	6:00 PM	East Library	Kristine Harris Richard Villareal	719-593-1524 831-760-6985
5 Sep	3 Oct	Board Meeting	1st Thur	6:00 PM	Zoom	Alex Field	719-351-4897
3 Sep	1 Oct	Pebble Pups	1st Tue	4:15 PM	East Library	David St. John	719-424-9852
19 Sep	17 Oct	General Assy	3rd Thur	7:00 PM	Co Sp Christian Sch	Alex Field	719-351-4897
26 Sep	24 Oct	Crystal Group	4th Thur	7:00 PM	Co Sp Christian Sch	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

Community Events (Pete Modreski)

Sept 12-15: Denver Gem and Mineral Show, part of the Hardrock Summit Show, and cosponsored by the nonprofit Greater Denver Area Gem and Mineral Council, an association of 7 Front Range area gem, mineral, and fossil clubs. In 2024 this will be held at the Westin Westminster Hotel, 10600 Westminster Blvd., Westminster CO. The show includes museum displays, club booths and demonstrations including free mineral and gem identification, and sale of grab bags for kids that goes toward a scholarship fund at Colorado School of Mines. Free admission and parking.

Several other gem, mineral, and jewelry shows will take place in Denver during the week preceding the "Denver Show." These include:

Sept 5-8: Just Minerals and Crystals Event Denver, Denver Airport Marriott at Gateway Park, 16455 E. 40th Circle, Aurora CO. Free parking & admission.

Sept 6-14: Colorado Mineral and Fossil Fall Show, Crowne Plaza DIA, 15500 E 40th Ave., Denver CO 80239. Free admission & parking.

Sept 6-15: Denver Mineral, Fossil, Gem & Jewelry Show; Denver Expo Gem Show; and Miner's Co-op Show; all at the National Western Complex, 4655 Humboldt St., Denver. Free parking & admission.

Sept 7: CSMS annual picnic, Western Museum of Mining and Industry. Visit the museum's website at <https://wmmi.org/>

Nov 1-3: New Mexico Mineral Symposium, Socorro, NM, sponsored by the New Mexico Bureau of Geology & Mineral Resources, Mineral Museum, and held at the Macey Center, New Mexico Institute of Mining & Technology. For information see <https://geoinfo.nmt.edu/museum/nmms/home.cfm> . [Note, this is a recently announced date change to Nov. 1-3, from the earlier anticipated date of the weekend of Nov. 8-10.]

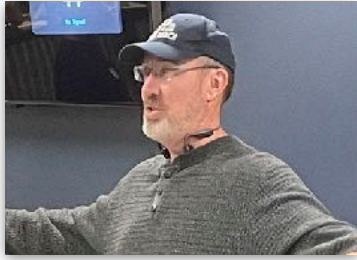
Nov 15-17: (anticipated date), Denver Area Mineral Dealers (D.A.M.D.) Gem and Mineral Show, at the Jefferson County Fairgrounds, Golden.

Dec 8-10: (anticipated date), Flatirons Gem and Mineral Show, at the Boulder County Fairgrounds, Longmont; sponsored by the Flatirons Gem & Mineral Club.



Secretary's Spot

John McGrath



2024 CSMS Officers

Alex Field, President
Shane Riddle, 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
John Massie, Past President

2024 CSMS Chairpersons

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

CSMS General Assembly Minutes

7 PM, Thursday July 18, Colorado Springs Christian School

Address: 4855 Mallow Rd, Colorado Springs CO 80907

Board Attendance: Vice President: Shane Riddle, Past President: John Massie, Member-at-large: Bill Meyers.

Agenda:

- I. Meeting was called to order by our Vice President Shane Riddle at 7:05 PM
- II. The Pledge of Allegiance was led by our Vice President.
- III. Program Speaker - Conni O'Connor & Matty Price from Florissant Fossil Beds
- IV. Meeting - There were 35 members/guests in attendance and 5 minerals were given.
- V. Officer Reports
 - A. President - Alex Fields, Absent
 - B. Vice - President - Shane Riddle, Present. No report
 - C. Treasurer Ann Proctor, Absent
 - D. Secretary John McGrath, Absent
 - E. Membership Secretary - Adelaide Bahr, Absent
 - F. Editor - John Emery, Absent
 - G. Members at Large
 1. Bill Myers - Present. No report
 2. Chris Burris - Absent
 - H. Past President - John Massie
 - I. Website and Show Coordinator - Lisa Cooper, Absent
- VI. Satellite Groups
 - A. Crystal Group - Kevin Witte and Austin Cockrell
 - B. Faceting Group - John Massie
 - C. Pebble Group -David St John, reported that there would be an upcoming trip to a fossil quarry.
 - D. Fossil Group - Richard Villareal stated that the East Library now has new cases to hold specimens for public display.
 - E. Jewelry Group, no report.
 - F. Lapidary Group -Sharon Holte reported that she would be ready to work with individuals as early as September.

VII. Liaisons

- A. Claims and Librarian -. Mike McCarty reported that the Group's claim report was due in August and he would need volunteers to perform maintenance on the club's claims.
- B. Field Trip Coordinator - Kyle Atkinson, Absent
- C. Social Coordinator - Tina Cox. Present and reported that she is leaving the post and to contact her if interested in assuming the duties.
- D. Store Keeper - Ann Proctor, Absent.

VIII. Unfinished Business – Shane made the second reading of the Constitution changes which were approved by voice vote by those present.

IX. New Business - None discussed

X. Meeting adjourned by Vice President, Shane Riddle at 8:48 PM

Respectfully Submitted

John M McGrath MD COL (RET) USA
Secretary

Alex Field
President

President's Corner

Alex Field
CSMS President



2024 Satellite Group Chairs

Kevin Witte/ Bob Germano, Crystals
John Massie, Faceting
K. Harris/ R. Villareal, Fossils
J. Barglowski, Jewelry
Sharon Holte, Lapidary
Vacant, Micro-mount
Vacant, Photography
David St. John Pebble Pups

2024 Liaisons

Florissant Fossil Beds National Monument:
S.W. Veatch
Western Museum of Mining and History:
S.W. Veatch

will be talking about the world-famous Red Cloud Mine, its surprising connection to our society, and the beloved Wulfenite, Vanadinite, and fluorescent specimens found there.

Keep on digging everyone!
Alex

Alexander Field
alexfield1@gmail.com



Presidential Matters



Happy Fall Rockhounds!

The leaves have started to change and the air is already cooler as Fall begins. I hope you're all still taking time to go prospecting, perhaps on our society's mineral claims, or elsewhere. We do have at least one more field trip on the schedule for this Fall as well.

A few quick announcements:

The Denver Gem & Mineral Show (which is actually many shows) is in full swing right now with more events starting this week, so if you're a collector, don't miss the many vendors, activities, and events.

In other news, our board nominating committee, headed by Randy Hurley, is active if anyone wants to run for a position on our CSMS board. Reach out to Randy if you'd like to put your name in the running.

Finally, I hope to see you all at the next CSMS general assembly meeting on Thursday, September 19th, 2024, 7 PM, Colorado Springs Christian School. Shane Riddle and I

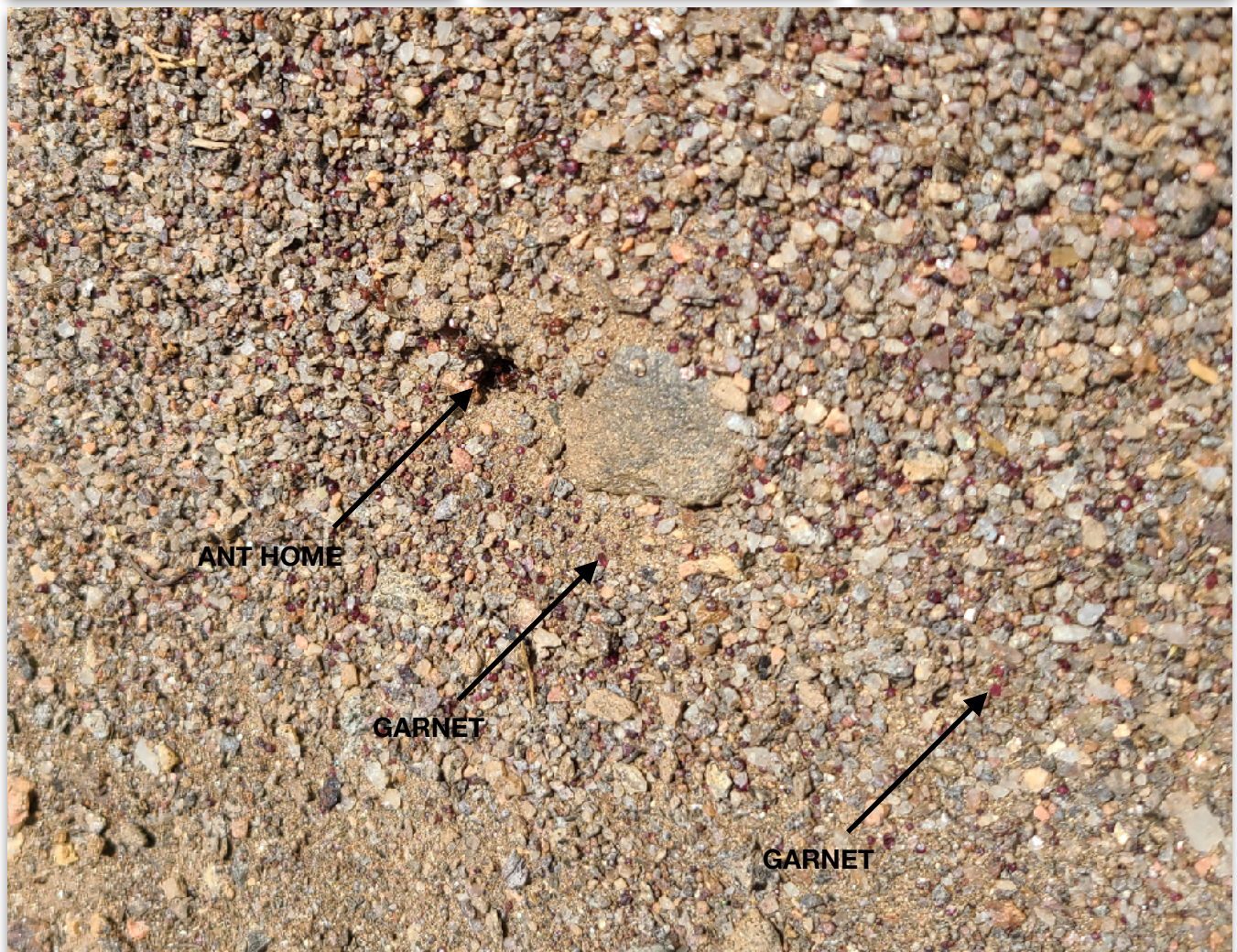
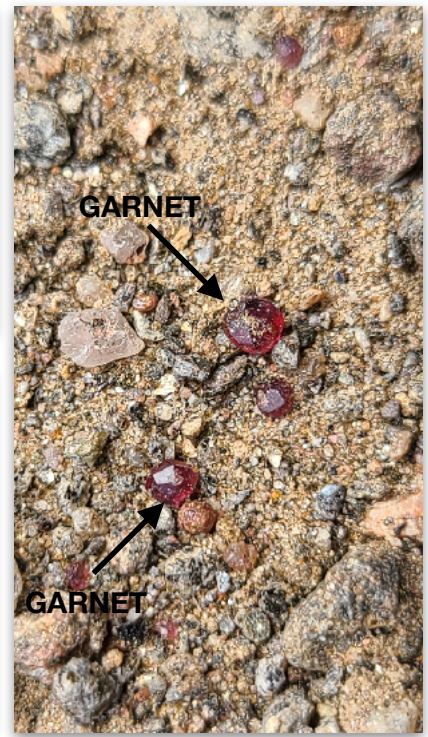


Field Report: Arroyo Gulch 22 Jun 24

19 extra-hardy rockhounds made the journey to distant Fremont County in search of garnets...and thousands were found. The weather was great but on the hot side until the mid afternoon. Ants and bugs plagued our rockhounds. Some of them still had oozing bites a week later. Turns out, red ants and red garnets are very similar in size and appearance. Those bugs wanted our rockhounds just as much as our rockhounds wanted the gems. Several members decided to become volunteer speed-bumps (see the pic) as they laid in the road, picking out stones. Many cookies, the unofficial food of CSMS, were eaten.

Write-up by Kyle Atkinson

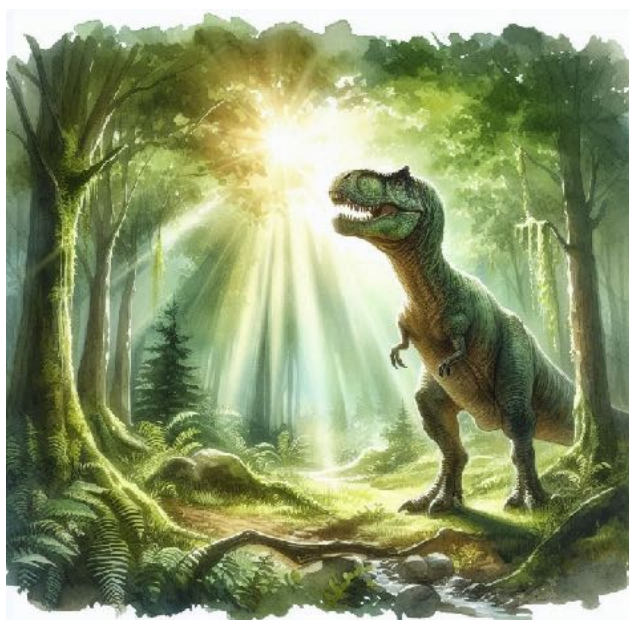




Unearthing Ancient Fossils: A Reflection on the Giants in My Life

By Steven Wade Veatch

I remember a scorching summer afternoon in 1992, when, with my new wife Shelly and mother-in-law Karen, I walked on a trail that meandered down the hill known as Cope's Nipple—named after the 19th-century paleontologist who explored this site for dinosaur bones. People refer to the area as Garden Park, and it is located a few miles north of Cañon City, Colorado.



Depiction of an *Allosaurus* prowling about in Garden Park during the Jurassic Period. AI generated.

With my mother-in-law in tow, I took the lead and attempted to be on my best behavior. She was visiting us from Interlochen, Michigan. As we walked, her presence loomed over me, casting a shadow that seemed to stretch endlessly. The air was heavy with her silent intensity, making the surroundings feel eerily quiet. I imagined a pleasing scent in the air. It reminded me of my mother-in-law's garden in Michigan. This added a mysterious touch to the atmosphere. It felt as if every step we took was heavy, as if her presence alone had a gravitational pull. My thoughts went back and

forth between making a good impression on her and conjuring in my mind—since we were walking on a dinosaur graveyard—a spike-tailed Stegosaurus defending himself from an Allosaurus.

As I walked through this area, memories flooded back from two years before when I had explored it with a friend. As we made our way up a hill on that sunny day my friend and I unexpectedly came across a hilltop ornamented with an abundance of petrified wood. The sight was mesmerizing, with the hill covered in these ancient, hardened remains of trees. The wood appeared as if frozen in time, its intricate patterns and textures on full display. The crisp sound of our footsteps echoed through the stillness of the hilltop, adding an eerie ambiance to the scene. A faint scent of earthiness lingered in the air, reminding us of the long history embedded in these petrified remains. As we gently touched the wood, a cool, smooth sensation greeted our fingertips, connecting us to the past. We were the first ones to see all of this petrified wood. If someone had been there before us, all the wood would probably have been taken.

Shelly and Karen kept up with me as we continued to descend Cope's Nipple. The scorching sun baked everything in a relentless heat. While we were going down a gentle slope, Shelly and Karen talked about how different this landscape was than the woodlands and humid air of northern Michigan. Shelly vividly recounted to her mother the harrowing encounter she had a year before, when a venomous rattlesnake unexpectedly lunged at her on an earlier trip here. She urged her mother to remain vigilant and attentive while going down the pathway.

It was the hottest part of the day as we continued to walk along the trail that now cut through a dark-red disintegrated siltstone, part of the world-famous Jurassic-

age Morrison Formation. Insects buzzed under an intense Colorado blue sky. A scorpion scurried with a quick dart beneath a cracked slab of siltstone, its jagged edges leaning against a smooth cobble of quartz. Time seemed to slow down in the heat, and seconds lingered in the dry air.

I had been here in the spring of 1991 with a prospector buddy. On that day, while ascending a ravine, we stumbled upon huge heaps of bentonite clay. It had rained the night before, and the clay had swollen up to five times its normal size. Nodules of a lilac-purple St. Stephen's agate were bulging out of the swollen, wet clay. I crawled up the side of a clay mound and plucked out one of these agates. As I held it to the sunlight to see the concentric layers inside, I slipped and slid down the slick clay on my backside. Wet, cement-like clay covered my back to my head. There was no way to wash it off, and it was solidifying in the arid air. My wife had a lot to say about this when I returned home. She also wanted to see this place, Garden Park, the next time I went.

Now my adventure with my wife and mother-in-law heated up. The dirt-covered path, lined by piñon pine, was in the middle of a dinosaur graveyard and was under the protection of the Bureau of Land Management—no fossil collecting allowed. I couldn't imagine dinosaurs once ruled this dry, semi-arid land covered with yucca and cactus. As we walked along the trail Shelly's voice poked into my consciousness. She had just bent down to pick something up from the side of the path. She was describing it to her mother: "It's cone-shaped with a subtle curve. It has a pointed end." She continued, "The other part of this is not pointed. There is a serrated edge." The word **SERRATED** thundered across my consciousness. I asked her if I could see it. She handed it to me. I knew at once she had stumbled upon an extraordinary find—a pristine *Allosaurus*

tooth, a relic from a formidable dinosaur that once reigned supreme in Garden Park's prehistoric ecosystem. The ancient fossil, with its sharp edges and intricate ridges, exuded a sense of raw power. As I held it in my hand, I could feel the weight of its history, imagining the ferocious battles it had fought. The sight of the tooth gleaming in the sunlight transported all of us back to a time when mighty dinosaurs roamed the land. The faint scent of earth and ancient fossils lingered in the air, arousing a sense of awe and excitement.

It was now time to finish the hike. We left the hotter, drier landscape for a riparian environment. Four Mile Creek greeted us as it sliced its way through a scenic valley adorned with cascading layers of limestone, siltstone, and sandstone. The gentle sound of flowing water filled the air, harmonizing with the rustling of cottonwood leaves along the creek bank. The earthy scent of wet soil along the stream mingled with the refreshing aroma of the nearby vegetation. As we stood there, we couldn't help but feel a sense of awe and wonder at the natural beauty surrounding us.

The day changed, it shifted into something new. Shelly's discovery was important. You don't find an *Allosaurus* tooth every day. My mother-in-law had a breakthrough in how she thought about me. She enjoyed our day together and listening to me talking about a vanished ecosystem filled with dinosaurs.

And I discovered how fortunate I was to have these two women in my life.



About the author: Steven is a geologist who joined the CSMS when he was 10, in 1965. The club met at that time at the old IBEW hall near the west side of the city. He was inducted into the Rockhound Hall of Fame in 2015. His complete profile is available at:

<https://www.blogger.com/profile/06566101278318062273>



The Lindoe Technique: An Improvement of the Methods Used to Create Replicas of Low- to No-Relief Fossils from the Florissant Formation

O'CONNOR, Conni J. *, HATTORI, Kelly, SLOVACEK, Mariah
Florissant Fossil Beds National Monument
* Corresponding author: Conni_O'Connor@nps.gov



Abstract

Many institutions have the luxury of being able to mold and cast large specimens for spectacular three-dimensional exhibition. Leaf and insect specimens from the Florissant Formation are difficult to replicate using conventional casting techniques because they are preserved as carbon imprints on a matrix with relatively non-existent physical relief. The Lindoe Technique introduced a creative method to mitigate those issues by using matte medium to transfer an image onto a plaster cast. This method has been adapted, improved, and refined for the reproduction of fossils from the Florissant Formation. Improvements include changes to medium used as the recipient for the transfer, layers of matte medium, and matte medium application techniques. The results of these adaptations are realistic replicas of low- to no-relief specimens used for exhibits, education, and outreach.

Introduction

Florissant Fossil Beds National Monument faces a unique set of problems when attempting to create fossil replicas. Many fossils from the Florissant Formation are carbonized and low-relief making them difficult, if not impossible, to traditionally replicate. Most fossils are preserved in the extremely thin paper shale layers, which are often only 0.1 mm in thickness. This matrix is highly susceptible to damage from improper handling, which complicates not only fossil preparation and conservation, but also molding and casting. Differences between this method and the original method: increasing the number of matte medium layers from two to eight, using a foam roller to erase any brush strokes, replacing a plaster cast with an actual piece of matrix, flipping the transfer image to reduce glossiness of the new specimen.

Materials

- Liquitex® Ultra Matte Medium
- Paint brush with synthetic bristles
- Small foam roller
- High-resolution color printer
- Matrix
- Fossil image
- X-ACTO® knife or razor



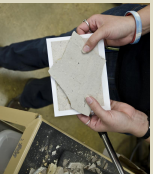
Procedure



Select a fossil image. Reverse image using photo editing software. Sometimes, images need to be edited and reversed for export. It is better if any distracting features around the specimen are removed.



Select the matrix that matches your photo in both color and size.



Place the image on the matrix to determine where the matrix needs to be trimmed.



Trim the matrix to fit the specimen.



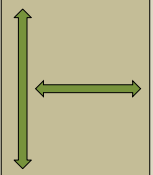
Match the image to the matrix to keep track.



Brush a light layer of matte medium onto the entire image horizontally.



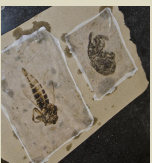
Use the foam roller to "erase" any brush strokes. Too much matte medium will cause air bubbles. Allow to dry completely (approximately 30 minutes).



Proceed with another light layer of matte medium brushed vertically. Alternate horizontal and vertical directions of brushing. Apply eight layers total.



After the eighth layer of matte medium has dried, wet the back of the image and gently rub off the paper between fingers and thumb.



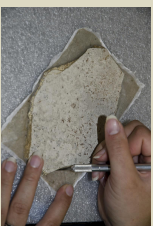
Allow image to dry.



If the photo looks hazy, there is paper still adhered to it. Keep wetting it and gently rub off all the paper. Allow photo to dry completely.



Brush a light layer of matte medium onto the matrix. Adhere image to matrix by gently, but firmly, pressing the image onto the matrix.



Flip the matrix to remove excess image material with an X-ACTO knife or razor.



For more detailed removal, set matrix on its edge and carefully remove excess image material.



Brush matte medium along edges of image to ensure complete adhesion to the matrix. Once dry, the replica is ready to handle and/or display.

Conclusions and Future Testing

Replicas can be used in our museum for multiple purposes. Specimens that can only be seen with the assistance of a magnifier will be displayed along side their oversized replicas. This will eliminate the need for clunky magnifiers that take up too much space inside the exhibit. Using replicas will also increase the number of specimens that can be displayed. Some museum specimens cannot be exhibited due to their holotype status or fragility. By creating a life-like replica, we overcome these challenges and exhibit these never-seen specimens. In the Interpretation Division, these replicas will be used as a hands-on tool for teaching. Because no actual specimens are used, no fossil degradation due to handling will be seen, which keeps the collections safe.

Future testing of this method will include: the use of transfers overlaid on 3D-printed specimens (birds, fish), experimenting with decreasing the amount of matte medium layers, using a rubber roller versus a foam roller for creating a matrix-like texture.

Acknowledgements

We are indebted to Clive Coy and Allen Lindoe for developing the initial techniques, Michelle Wheatley and Herb Meyer for their support, Mike Elund for his technical insight and assistance, and Darren Tanke for his excellent illustration skills.

References

Coy, Clive and Allen Lindoe. The Lindoe Technique: Image Transfer to Casts with Low to No Relief. 2014. University of Alberta, Laboratory for Vertebrate Paleontology Edmonton, Alberta, Canada.

Trip Report: Lizzadro Museum of Lapidary Arts

Tina Cox
RkyMtnTina@gmail.com

Just a half hour west of O'Hare airport sits a hidden gem in the Chicago suburb of Oak Brook. The Lizzadro Museum of Lapidary Arts is well worth including in any future travel itineraries for the Chicago area. Heck, it's worth buying a plane ticket to Chicago simply to visit this remarkable museum!



Above: The museum is easily accessible with all exhibits on a single floor. *Photos: Tina Cox*



Above and right: The displays are numerous and varied, spanning different centuries, regions and styles. *Photos: Tina Cox*



The museum was founded by Italian immigrant and Chicago business man, Joseph Lizzadro. Lizzadro's love of rocks began as a child in Italy. As an adult in Chicago, he was seeking some jade from which he could have cufflinks made. When

he was given a carved jade vase to use for the cufflinks, he instead decided the vase would become his first piece in what has become a vast collection of lapidary masterpieces. He continued to expand his collection, and the museum opened in 1962.

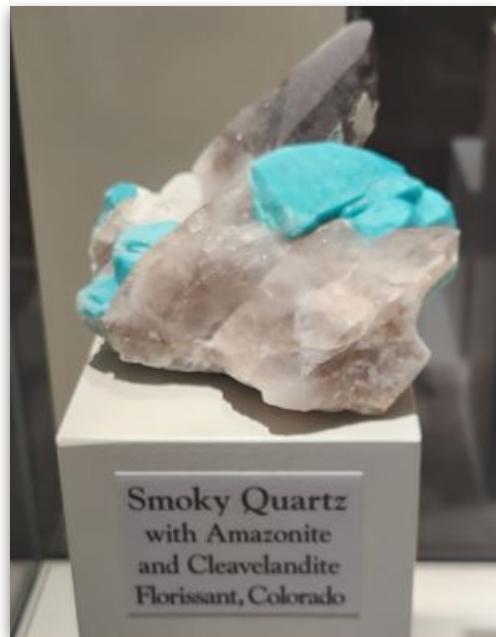


Above and below: The museum provides information on how artisans using a machine as rudimentary as this can produce masterpieces as exquisite as these.
Photos: Tina Cox



The museum houses multiple exhibits, with the largest being an amazing collection

of jade carvings dating as far back as the 1600's. These works of art are truly masterpieces, with each piece seemingly more stunning and intricate than the previous one. What makes these incredibly detailed carvings even more impressive is that fact that they were created using rudimentary lapidary tools which were powered by foot pedals. The museum includes a model of one of these ancient lapidary workstations.



Above: Colorado is represented in the display of minerals, as seen in this sample from Florissant. *Photo: Tina Cox*

Additional exhibits include mosaics (which look like paintings), dioramas of various animals, cameos, gemstones and rocks/minerals/fossils. All of the exhibits are first rate. There are several movies throughout the museum which provide additional information on various topics. The museum also houses a nice gift shop.

The museum is open Tuesdays through Sundays. Admission for adults is \$10, seniors \$8. Additional information can be found on their website:

<https://lizzadromuseum.org/>

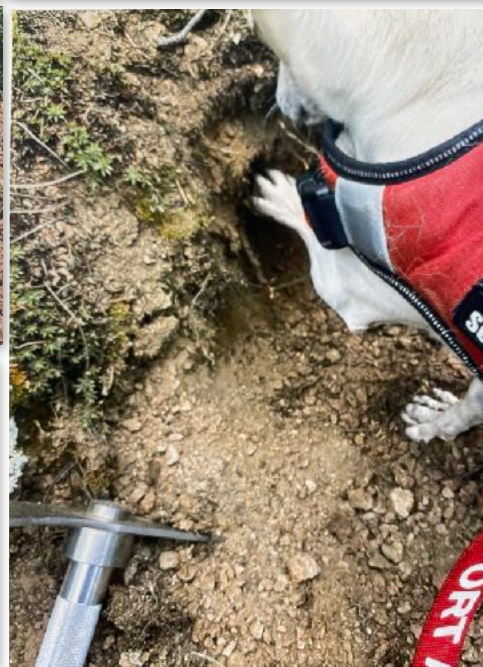


Mammoths, saber-toothed cats, and cave bears once ruled this place. When people first came, they lived here in rock shelters, floored with packed dirt, below smoke-blackened ceilings. On canyon walls—splashed with desert varnish—they carved and pecked designs, symbols, people and animals: *A message through time.*

This site awakens my senses as my mind conjures vivid images of ancient people moving, swaying, dancing in the warm glow of a crackling campfire while casting shadows on the smooth canyon wall.
They send a message through time.

I think about these ancient people who have faded into the dry desert air and try to understand their
message through time.

July Field Trip Pics - Pikes Peak Region 2024



Buddy the rock-hound helping out boss Richard Villarreal at the April fools claim July 2024 in Co Springs



North Union Library Display Case

Hearty rockhounds Richard Villarreal and Renate Pabst stand next to the beautiful new display case they set up in the North Union Library. It contains a variety of stunning specimens of fossils, minerals and crystals. Be sure to go visit the library and check out the new case. Congrats Richard and Renate!

Richard also co-leads the fossil group at Colorado Springs Mineralogical Society. The next meeting is 11 Sep 24, 6 PM at East Library, see the schedule pg 2 for more info.

Photos and report by Richard Villarreal.



Geological Anomalies: Chalcedony Breccia in a Cinnabar Matrix and the Disappearance of Michigan's Geology Professor

By Steven Wade Veatch

Hidden among geological marvels at a mineral show was a cinnabar-bearing chalcedony breccia-specimen (Figure 1). The term "breccia" refers to a rock composed of angular fragments, while "chalcedony" describes a type of cryptocrystalline quartz. Adding "cinnabar" specifies the presence of mercury sulfide, which creates a distinctive red color.

This breccia specimen reveals the Earth's natural forces and is a reminder of the mysterious disappearing act of a professor. The specimen, a chalcedony breccia, embedded in a cinnabar matrix, unveils a story of geological upheaval.

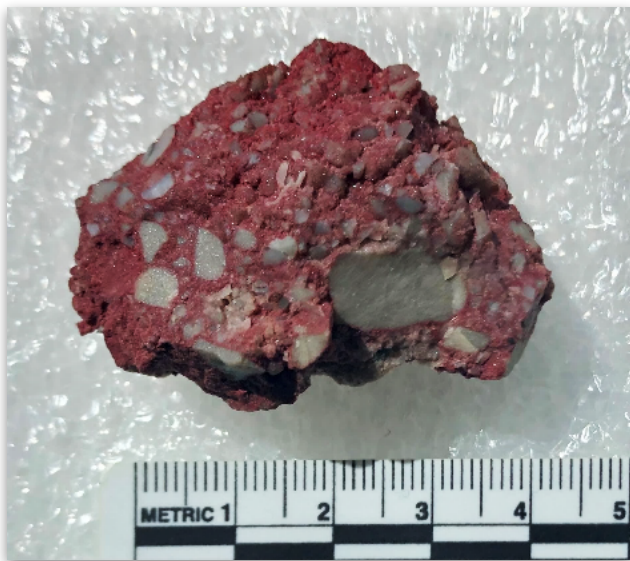


Figure 1. Chalcedony breccia in a cinnabar-matrix. While attending the Central Michigan Lapidary and Mineral Society rock show in 2023, the author noticed this specimen for sale by a vendor and purchased it for its interesting geological story and the sad tale about its original collector. From the collection of S. W. Veatch. Photo date 2024 by S. W. Veatch.

It is also a reminder of the personal upheaval of the man who collected it.

Professor M. W. Harrington collected the cinnabar specimen from a streambed in Napa County, California (Figures 2 and 3). At some point after he collected this sample, he disappeared. His wife and son relentlessly searched for him over many years. This article takes us on a journey to uncover the mysteries and wonders of this fascinating specimen and the tragic tale of its collector.

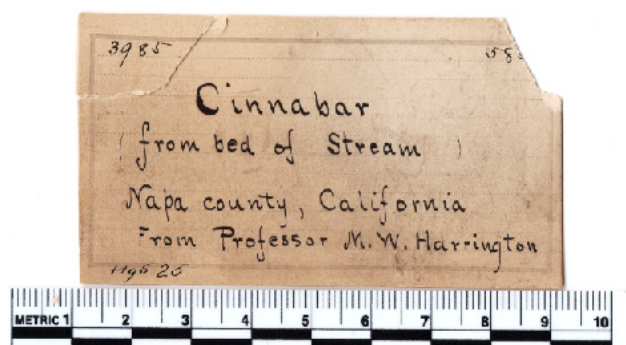


Figure 2. Label of the cinnabar-bearing chalcedony-breccia specimen collected by Professor Mark Walrod Harrington for the University of Michigan's Natural History Museum in Ann Arbor, Michigan. Photo date 2024 by S. W. Veatch.

The formation of the chalcedony breccia, which consists of chalcedony fragments embedded in a matrix of finer-grained, granular cinnabar, results from complex geological processes. These types of breccias usually develop in areas of intense tectonic activity or volcanic eruptions, where rocks break apart and then fuse back together.

The distinctive feature of this specimen is cinnabar, a vibrant red mineral consisting of mercury sulfide. Cinnabar typically is found in veins associated with volcanic activity and alkaline hot springs (Chesterman, 1990). It's the primary ore used to refine elemental mercury and has

historically been used to create vibrant red pigments like vermilion.

Geological thought suggests that the formation of this chalcedony breccia within its cinnabar matrix likely occurred during periods of volcanic activity and low temperature hydrothermal circulation. The fracturing of the pre-existing chalcedony, possibly because of volcanic eruptions or tectonic movements, provided the initial substrate for the deposition of chalcedony fragments. The introduction of a cinnabar-rich solution through subsequent hydrothermal processes led to the cementation of the breccia, resulting in the creation of the intricate mosaic we currently observe.

From a scientific standpoint, this specimen offers valuable information about past geological events and environmental conditions. Researchers can reconstruct part of the region's geological history by studying the composition and texture of the chalcedony breccia and its association with cinnabar. These investigations enhance our knowledge of volcanic processes, hydrothermal activity, and mineral-deposit formation.

The cinnabar- and chalcedony-breccia specimen discussed in this article was collected by Mark Walrod Harrington (1848 –1926) for the University of Michigan's mineral collection. Harrington was born in the pleasing town of Sycamore, Illinois and he attended the University of Michigan. The grandeur of the historic buildings on campus captivated his eyes while the distant sound of student chatter filled the air. Graduating in 1868 with a bachelor's degree, he continued

his studies, delving into the world of academia, as the aroma of old books and the sound of pages turning surrounded him. In 1871, he earned his master's degree, and his heart filled with a sense of accomplishment.



Figure 3. Photograph of Mark Walrod Harrington, during his tenure as Director of the Observatory at the University of Michigan, which he held from 1879–1891. A renowned American scientist in the late 19th century, he held the distinction of being the first civilian to head the United States Weather Bureau and had previously served as president of the University of Washington. He also held positions at the United States Weather Bureau before his disappearance around 1899. *Photographer unknown. Public domain.*

He then started his career as the assistant curator at the University's Museum of Natural Sciences in Ann Arbor, Michigan. The hushed whispers of students exploring the museum echoed in his ears. With each step, he felt the weight of knowledge and responsibility grow. Eventually, the university made him the professor of botany, zoology, and geology, and then gave him the honor of directing the

esteemed Detroit Observatory, where at night the twinkling stars above filled him with awe and wonder (Mark Walrod Harrington, 1895-97, n.d.).

In 1874, he married Rose Martha Smith, a woman hailing from his Illinois hometown. Shortly after, they welcomed a son into their family. However, tragedy struck in 1876 when their young child passed away. Initially, Harrington had intended to take a year-long sabbatical in Germany alone. However, because of the heart-wrenching loss, he and his wife embarked on the journey together. During their time in Europe, they immersed themselves in the German language, embraced a simple lifestyle, and grieved the loss of their son (Swanson, n.d.).

The president of the University of Michigan appointed Harrington to be the director of the Detroit Observatory in 1879. The Harringtons welcomed their second son, Mark Raymond, in 1882. The boy, like his father, had an insatiable curiosity. Harrington divided his time between the Observatory during the day and exploring the Ann Arbor countryside with his son in the evenings and on weekends, looking for plants, rocks, and arrowheads (Swanson, n.d.).

After leaving his university post, Harrington took on the position of the first civilian director of the United States Weather Bureau, which fell under the authority of the US Department of Agriculture (US Department of Commerce, n.d.). He only maintained this position a few years before problems with managing non-academic staff led to his dismissal. Next, he became the president of Washington Territorial University, but he faced issues again and had to resign. His leadership abilities seem to have been

impacted by a newly emerging mental illness. After briefly returning to the Weather Bureau in a lower position, he resigned in 1899 (Swanson, n.d.). Later that year, on a summer evening, he told his wife and 17-year-old son that he was going out for dinner (Swanson, n.d.). He never came back (Swanson, n.d.). He vanished for almost a decade, a tragic event that overshadowed his academic accomplishments.

During the lost years, it appears that Harrington first spent his time working menial jobs. After that, he traveled to China where he tutored students in English. Unfortunately, he became ill during his time there, but he managed to save up enough money to sail back home. Upon his return, he landed in the American South after passing through the Panama Canal (Swanson, n.d.). He worked on sugar plantations for a while before deciding to travel west and stake a mining claim. Eventually, he found work as a lumberman. After these adventures, he returned to a sleazy Chicago flophouse and later made his way to New Jersey (Swanson, n.d.). Sadly, it was in New Jersey that his memory finally and completely failed him.

In 1907, alone and frightened in Newark, he sought shelter from the rain at a local police precinct. Upon seeing his condition, the authorities took him to a mental institution and admitted him under the name of "John Doe No. 8."

Harrington's whereabouts remained a mystery to his wife Rose and her son for the next 10 years. During his collection of Native American artifacts out west, Mark Raymond, Harrington's son, stumbled upon a newspaper report in 1908 about a peculiar admission to the Morris Plains Asylum for the

Insane. He wasted no time contacting his mother, who soon found out that the man identified as John Doe No. 8 was her long-lost husband.

While at the asylum, the doctors determined that Harrington was suffering from severe mental illness. According to the University of Washington in Seattle, his wife claimed that, while he was investigating clouds over the campus during his brief tenure as president there, lightning struck him. The exact cause of his madness, however, remains unknown. Although there was some improvement in Harrington's mental state, he was never able to return to a normal life and refused to acknowledge his former name or personal history. As a result, he remained institutionalized for the rest of his life and passed away in the New Jersey State Mental Hospital at Morris Plains in 1926.

Harrington was a resolute scholar who delved into various fields including botany, astronomy, meteorology, and geology. He actively contributed to these disciplines through his studies and publications. And his knowledge extended beyond his vast scientific skills, as he was proficient in six different languages.

The chalcedony breccia, with its intricate patterns and vibrant hues, is a mesmerizing sight. As we gaze upon it, the contrasting colors of the delicate chalcedony captivate us against the vibrant red backdrop of cinnabar. The texture of the chalcedony feels smooth and cool to the touch, and the smell of earth and minerals fills the air. Professor Harrington's cinnabar is a testament to the timeless beauty and geological complexity of our planet,

reminding us of the boundless wonders that lie beneath the surface. And this specimen recalls the sad end of a brilliant scientist.

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About the author: Steven is a geologist who joined the CSMS when he was 10, in 1965. The club met at that time at the old IBEW hall near the west side of the city. He was inducted into the Rock-hound Hall of Fame in 2015. His complete profile is available at:

<https://www.blogger.com/profile/06566101278318062273>



Fossilfun14@gmail.com

July and August Updates

Our pups and Scholars had a great summer with meetings and a field trip to the Florissant Fossil Quarry in July. Pictures speak louder than words.



Seed



Rose Stem



Broken egg (identified by owner)

Our meeting in July was on Agates and our pups took home many samples thanks to your donations. In August, we had a guest speaker - pups grandfather Eric Enger shared how to tumble rocks and minerals. Alexander's Grandpa went over good types of tumblers, grit, and places to purchase rough material to polish. He shared several samples with the pups. We also had a donation of tumbled agate from a club member and that was a big hit. Huge thank you, we learned so much!



Eric Enger sharing wisdom with the pups



Samples of rough and polished material

The September 3, 2024 meeting is on Megalodon teeth and other prehistoric sharks 4:15 - 5:15 at the East Library room F1. Parking will be limited due to asphalt repairs all month. The October 1, 2024 meeting is fossil themed in honor of Fossil month worldwide. (4:15-5:15 East Library). Denver is having numerous shows going on this month. They can be great family events! Urban rockhounding can be so much fun finding mis-priced deals that normally do not happen. Happy Hunting! David

"I rescue rocks ...it is not Hoarding"
- anonymous



wonderwoman627 at Pixabay



wonderwoman627 at Pixabay



CSMS Annual Picnic
Western Museum of Mining and Industry
7 Sep 24

Over 30 hearty rockhounds gathered on a beautiful Colorado Saturday afternoon for the annual CSMS picnic at the Western Museum of Mining and Industry. Kids picked out geodes and watched them get cut open. Rockhounds brought beautiful specimens to share. There was lots and lots of food, and cookies too. The society donated \$500.00 to the museum as it does every year - see the pic. It was a wonderful day at the museum.





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. The newsletter is produced in Mac Pages.

e-mail the editor:
pickandpackeditor@gmail.com

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

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The Breit Award - Steven Wade Veatch

Steven Veatch, CSMS member, will be honored with the Breit Award for Historic Preservation in October during his trip to Colorado. The Teller Historic and Environmental Coalition will present the Breit Award to him at a banquet on October 20, 2024 in Woodland Park, Colorado. This Colorado award honors individuals and organizations for their efforts in preserving the history, environment, and culture of Teller County, Colorado. The award is named in memory of Doris "Dee" Breitenfeld, a key figure in local conservation and preservation efforts.

The coalition has acknowledged that his publications, articles, and research have played a crucial role in safeguarding the historical integrity of this specific part of the Pikes Peak region. Although he moved away from this county 3 years ago, he continues to conduct research there and publishes articles on the gold rush history of Cripple Creek and the ancient environments of the Florissant Fossil Beds.

Field Trip Schedule

Subject to the Laws of Nature

- Sep 14th** - CSMS Denver Show Meet-up
- Sep 21st** - April Fools Clean-up Day (STC)
- Sep 28th** - Rocky Mountain High Claim Clean-up Day (STC)
- Oct 5th** - Book Cliffs (Need Leader)

Contact field trip planner Kyle Atkinson with questions:
atkinson.kyl@gmail.com 719-453-3653

MayaQ at Pixabay

Western Museum of Mining and Industry

The CSMS and WMMI have a cooperative agreement. Be sure to visit the WMMI website and learn about this amazing museum.

<https://wmmi.org/>



**WESTERN MUSEUM OF
MINING & INDUSTRY**



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), 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.rmfm.org