



Colorado Springs Mineralogical Society

Founded 1936

~ Lazard Cahn ~
Honorary President

"Pick & Pack"
Volume 62 No. 9
November 2022



CSMS General Assembly

Thursday, November 17, 2022 7:00 PM
Mt. Carmel Veterans Center

Program Speaker:
CSMS VP Rick Jackson

"Fossils and other Neat Things from Saudi Arabia"

M-Z BRING SNACKS

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

In This Issue ...

Business/ Upcoming Events	2 - 5
National Fossil Day	6
Article - M. Nelson, <i>Blue Hemimorphite Crystals? Yep, but Fakes</i>	7 - 9
Article - S. Blizzard, <i>Theiophytalia kerri: A Garden of the Gods Dinosaur</i>	10-12
Poem - S.W. Veatch, "Underground"	13
Pebble Pups	14
General Assembly pics	15
Classifieds & Announcements	16
Poem - D. ST. John	19

Rick Jackson - Fossils and other Neat Things from Saudi Arabia



Join us Thursday night 17
Nov 22 to hear our very own
VP Rick Jackson speak
about fossils and other neat
things he discovered in
Saudi Arabia.

COLORADO SPRINGS MINERALOGICAL SOCIETY PO BOX 2 COLORADO SPRINGS, COLORADO 80901-0002

CSMS Group Calendar

Nov '22	Dec '22						
9 Nov	14 Dec	Fossil Group	2nd Wed	6:00 PM	East Library Annex	Jerry Suchan	303-648-3410
3 Nov	1 Dec	Board Meeting	1st Thur	6:00 PM	Zoom	John Massie	719-338-4276
17 Nov	15 Dec	Pebble Pups	3rd Thur	5:30 PM	Mt. Carmel Center	David St. John	719-424-9852
17 Nov	15 Dec	General Assy	3rd Thur	7:00 PM	Mt. Carmel Center	John Massie	719-338-4276
24 Nov	22 Dec	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

Community Events

Nov 7: 6:30 PM, Zoom presentation sponsored by Friends of Colorado School of Mines Museum of Earth Science, "Silver, Born of Cataclysmic Events and Brought to us by Improbable Happenings," by Patrick Rowe, Los Alamos National Laboratory and Los Alamos Geological Society. Zoom link will be forthcoming. All are welcome to attend.

Nov 11-13: New Mexico Mineral Symposium, New Mexico Bureau of Geology & Mineral Resources Museum, Socorro NM. See <https://geoinfo.nmt.edu/museum/minsymp/home.cfm>

Nov. 17: 7 PM, Colorado Scientific Society November Meeting, All in the (human) family: Neanderthals and Denisovans and us, by Bence Viola, University of Toronto. All welcome; check CSS website to confirm location (probably 241 Berthoud Hall, CSM campus).

Nov 18-20: Jefferson County Fairgrounds Mineral Dealers Gem & Mineral Show, Golden. Free admission!

Dec 3: 1:30-7:00 PM, WIPS Annual Auction, Lakewood Clements Community Center, 1580 Yarrow St, Lakewood, CO. Free to attend, all welcome. Attendees are encouraged to contribute to the potluck dinner. Silent auction will include numerous items of paleontological - and geological - interest including items from the Covington collection. Verbal auction (later in the afternoon) to include big-ticket items. Anyone can bid, but only WIPS members can give items to the auction.

Dec 9-11: Flatirons Gem & Mineral Show, Boulder County Fairgrounds, Longmont, CO. See <https://flatironsmineralclub.org/about/annual-fmc-gem-and-mineral-show-2/>

Dec 13: Colorado Scientific Society Potluck Dinner, Annual Meeting, and President's Address, "Who owns the Arctic? – the politics of plate tectonics in a melting world," by Ned Sterne. New Terrain Brewing Company, Terminus Room, 16401 Table Mountain Parkway, Golden. All are welcome to attend, no charge; dinner at approx.. 6 PM, meeting & presentation at 7 (please check CSS website to confirm exact times).

Feb 9-12, 2023: Tucson Gem and Mineral Show, in the Tucson Convention Center, sponsored by the Tucson Gem and Mineral Society. Other gem & mineral shows in Tucson begin throughout January and the first week of February.

Feb 24-26, 2023: Gem and Mineral Show at Jefferson County Fairgrounds, sponsored by Denver Gem & Mineral Guild. Free admission!

Mar 24-26, 2023: Fort Collins Gem & Mineral Show, (Friday, 4-8 PM; Saturday, 9 AM - 6 PM; Sunday, 10 AM - 5 PM) at The Ranch/Larimer County Fairgrounds in the Thomas M. McKee Building, Loveland, Colorado. The Ranch, 5280 Arena Circle, Loveland, CO. Free parking, paid admission to show. See <http://www.fortcollinsrockhounds.org/index.shtml>. Please check website to confirm the exact dates.

Mar 25-26, 2023: WIPS [Western Interior Paleontological Society] "Founders Symposium, "Mammals! From Mini to Megafauna," Colorado School of Mines Green Center, 924 16th St, Golden. Details forthcoming; see [<https://www.westernpaleo.org%20.%0d>]<https://www.westernpaleo.org>

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

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
Vacant, Federation Rep



Presidential Matters



A message from CSMS President John Massie:

HELP!

We are looking for a key to the mineral display at the down Pikes Peak Library. The minerals were presented to the library district by the Coil family to be maintained by the Colorado Springs Mineralogical Society. The pebble pups are responsible for maintaining it, but the key has disappeared.

If anyone knows about the location of the key please contact:
John Massie, jsmassie1075@gmail.com.

I appreciate all the interest members are showing in the activities of the club. We are planning the Christmas party at this time. More information will be presented at the November 17 meeting.

John Massie
CSMS President

CSMS General Assembly Minutes

7 PM, Thursday 20 Oct 22, Mt Carmel Vet Center, Co Sp

Address: 530 Communications Circle, Colorado Springs CO 80905

Board Attendance: President: John Massie, Member-at-large: Bill Meyers, Member-at-Large: Chris Burris, Secretary: John McGrath, Treasurer: Ann Proctor, Membership Secretary: Adelaide Bahr

Agenda:

- I. Meeting was called to order by our President John Massie at 7:07 PM
- II. The Pledge of Allegiance was led by President John Massie
- III. Introduction of Guests: None
- IV. Introduction of New Members: 4 new members, Austin Cockerel
- V. Program Speaker introduced by President John Massie - Bill Myers.
 - A. Gemstone Identification - The Problem of Gemstone Identification and The Optical Solution
 - B. Bill emphasized the many problems with using physical properties to identify gemstones
 - C. He explained that Refractive Indices (RI) are specific to each gem and can be determined by a moderate costing refractometer or Polariscope.
- VI. Rockhound of the Year ballots were distributed to members present to vote for either Chris Burris or Lisa Cooper
- VII. Meeting - There were 35 members in attendance and 7 minerals were given out.
- VIII. Officer Reports
 - A. President - John Massie, no report
 - B. Vice - President - Rick Jackson - Absent
 - C. Treasurer Ann Proctor- Present, stated that the club is "solvent."
 - D. Secretary John McGrath - Present and reported on some of the decisions and issues currently at the board level.
 - E. Membership Secretary - Adelaide Bahr - Present, No report
 - F. Editor - John Emery, Absent
 - G. Members at Large
 1. Bill Myers - Present, no report
 2. Chris Burris - Present, no report

CSMS General Assembly Minutes (Con't)

7 PM, Thursday 20 Oct 22, Mt Carmel Vet Center, Co Sp

H. Past President - Sharon Holte - Absent

I. Website and Show Coordinator - Lisa Cooper, absent

IX. Satellite Groups

A. Crystal Group - Kevin Witte stated that there would be a meeting next Thursday..

B. Faceting Group - John Massie reported that he is currently teaching classes at the Senior Center, but was still available for members to schedule a session.

C. Pebble Group -David St John described his busy October training 70 scouts with the help of Cathy and Frank; presenting at Fossil Day at Garden of the Gods which was made possible by the Club's insurance policy which was required the the City of Colorado Springs for presenters and his outreach to homeschoolers.

D. Fossil Group - Jerry Suchan, absent. Meetings are held the 2nd Wednesday of the month from 6-7:30 at the East Library Annex.

E. Jewelry Group - still in need of a Chairperson

F. Lapidary Group - Sharon Holte reminded members that she was available for phone calls to schedule use of the club's rock saws on Sunday night after 6:30 PM.

X. Liaisons

A. Claims - Frank Rosenberg, Present, no report

B. Field Trip Coordinator - Kyle Atkinson, absent.

C. Social Coordinator - Mark Schutz, Present. David St John volunteered to manage the Social mission at the next meeting as Mark stated that he would be absent.

D. Store Keeper - Ann Proctor, Present. She asked that anyone who was interested in purchasing shirts or hats should contact her and she would bring them to the next General Meeting

XI. Unfinished Business - None discussed.

XII. New Business -

A. Roger Pittman received the long delayed 2019 People's Choice Award for the Pikes Peak Gem and Mineral Show.

B. CSMS 2022 People's Choice Award for the Pikes Peak Gem and Mineral Show, was presented to Jack Aull.

C. John McGrath reported that the CSMS Geocache would be placed on Gold Camp Road approximately 3 miles from the Hub parking (intersection of High Drive, Gold Camp and Cheyenne Canyon Road) and would contain a log book, Amazonite and Club Brochures

D. The Nominating Committee presented the list of 2023 CSMS Board of Directors. The new nominee for VP was Shane Riddle. All officers were running unopposed.

1. President - John Massie

2. Vice President - Shane Riddle

3. Treasurer - Ann Proctor

4. Secretary - John McGrath

5. Membership Secretary - Adelaide Bahr

6. Member-at-Large - Chris Burris

7. Member-at-Large - Bill Myers

E. Frank listed the AFMS 2022 Editor Awards that were listed in John Emery's notice.

1. Mike Nelson, "An Answer to the Pandemic Blues: A Road Trip to the Kansas Cretaceous Chalk Beds," 1st Place (Advanced Adult Article)

2. Steven Wade Veatch, "Walking Among Ghosts," 3rd Place (Advanced Adult Article)

3. John D. Emery, "Crossword Puzzle - Geology Quiz," 3rd Place (Written Feature)

4. Ben Elick, "Fluorite: Mineral of the Month at the Western Museum of Mining and Industry," Honorable Mention (Written Feature)

5. Joshua Hair, "Flying Termites," Honorable Mention (Written Feature)

6. Steven Wade Veatch, "Brothers," 2nd Place (Poetry)

7. John D. Emery, "Pick & Pack" (November Issue), 2nd Place (Large Bulletin)

XIII. Meeting adjourned by CSMS President John Massie at 8:36 PM

Respectfully Submitted

John M McGrath MD COL (RET) USA





Federation News Post

American Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies



AFMS SCHOLARSHIP FOUNDATION

The AFMS Scholarship Foundations provides \$4,000 scholarships to two students in each of six of the Regional Federations. The RMFMS chooses an Honorary Scholarship Awardee who chooses the two Geology graduate students who receive the scholarships.

This year our Honorary Awardee was Dr. Simon Jowitt who is a geology professor at the University of Nevada, Las Vegas. The UNLV geology graduate students he chose to receive the scholarships were Dalton McCaffrey and Thomas Boes. Since our RMFMS Show & Convention was held in Las Vegas we were fortunate enough to have all three of those individuals attend our Award Banquet and speak to us about their work and studies in geology.

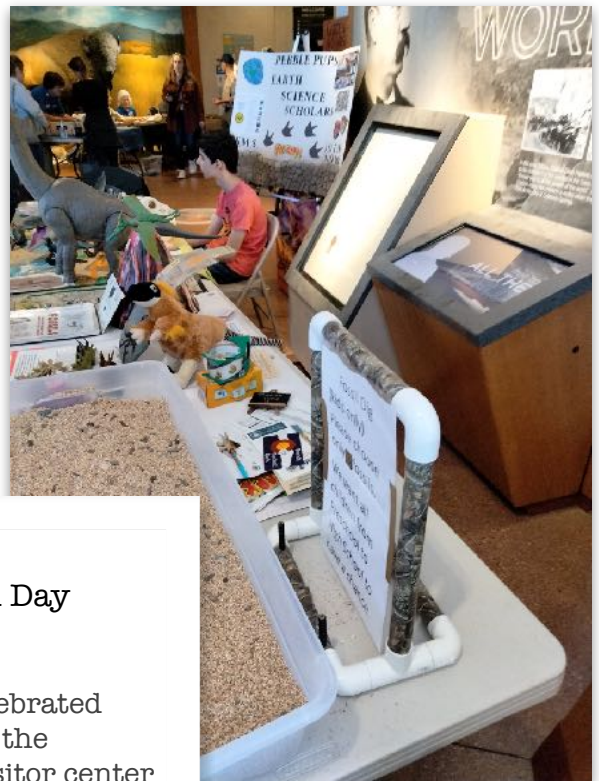
Next year our RMFMS Show will be in July in Casper, Wyoming. We need to have an Honorary Scholarship Awardee appointed so that the two students to receive the \$4,000 scholarships can be selected. Hopefully the professor and students chosen will be able to attend our Awards Banquet at the convention in Casper.

Any Rocky Mountain Federation Club or any individual member may submit a person for nomination for the Honorary Award Recipient. We need a short bio on the person telling us why you are nominating them for the Award. Please submit your nomination to me at the address below. Contact me with any questions you may have.

Richard Jaeger
RMFMS Scholarship Chairman
3515 E. 88th St.
Tulsa, OK 74137-2602

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.



REPORT National Fossil Day 15 Oct 22

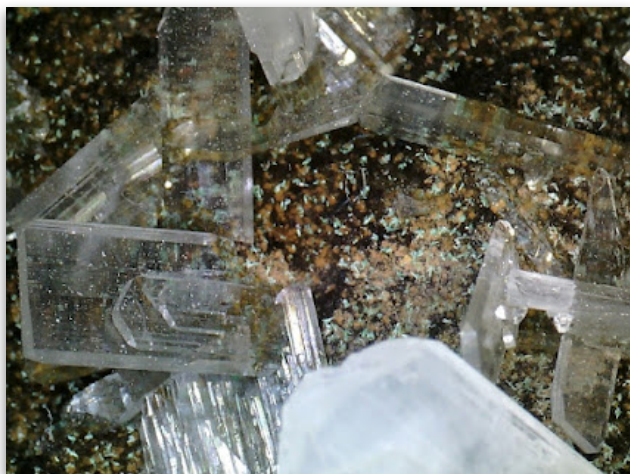
CSMS Pebble Pups celebrated National Fossil Day at the Garden of the Gods visitor center Oct 15, 2022. They set up display tables and interactive activities for the public to enjoy.



Blue Hemimorphite Crystals? Yep, but Fakes

Mike Nelson
csrockguy@yahoo.com

In Tucson 2022 at a vendor's tent (long forgotten the name) I picked up an interesting specimen of hemimorphite that had come from the Ojuela Mine, Mapimi, Durango, Mexico. The small crystals, associated with goethite, were nicely displayed in a Perky Box. Now, rockhounds with any familiarity of Mexican minerals know that hemimorphite $[\text{Zn}_4\text{Si}_2\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}]$ crystals from Ojuela are quite common at almost all rock and mineral shows. In fact, I have several specimens in my collection, so why would I need to add another?



Above: "Normal" clear and gemmy hemimorphite from Mapimi, Mexico. Width FOV ~1.0 cm.
Photo: M. Nelson

There were several reasons for this purchase: 1) the crystals are well formed and quite attractive; 2) they are blue in color; 3) specimens of blue crystals were selling for "big bucks" in the 2020 Denver show and well out of my budget; 4) I paid a measly \$3 for my 2022 specimen; and 5) the color of the beautiful hemimorphite was fake-it had been dyed blue! Now, rockhounds can find

died "agates" at almost any trinket shop or rock/mineral store but I had never seen dyed hemimorphite. It turns out that many legitimate mineral dealers, and their customers, also had never seen bright blue crystals.



All Above: Bright blue, dyed hemimorphite crystals from Mapimi, Mexico. Width FOV ~1.0 cm. (top two and ~1.5 cm. lower). *Photos: M. Nelson*

In the January 2021 issue of Rock & Gem, Bob Jones, the long-time contributor to the magazine, published an article entitled On the Rocks: Much-talked-about hemimorphite lacks authenticity. Jones fully explained the known history about these fakes and how the fraud was discovered—but not before dealers and buyers had lost money! The following is information abstracted from the article.

The latest case of such fraudulent action is a group of specimens of dyed blue hemimorphite from Mina Ojuela, Mapimi, Durango, Mexico, currently being marketed. This mining area has had an outstanding reputation for producing world-class minerals of great variety for generations...

Of course, bright blue botryoidal hemimorphite examples have been found at many locations throughout the world. These are entirely natural. Then, suddenly, brilliant blue crystal specimens of hemimorphite appeared from Mapimi in summer 2020.

Dealers were happy to have something new and exciting as colorful minerals sell well, especially from a locality with a sturdy reputation. Dealers are, by and large, a suspicious lot, and many were cautious of this strange, new color, but evidence of authenticity, including videos of specimens being collected in situ underground, showed they were likely natural. Many dealers bought specimens for resale before the September mineral shows. Their faith proved to be misplaced as the blue hemimorphite was finally proven to be an unnaturally dyed mineral.

Fake specimens showed up in some quantity at the shows held in Denver in September 2020. Many dealers already had plenty of specimens at this point in the year, and it appears some had invested considerable sums in this fake mineral.

Many dealers conducted tests with positive results. For example, the mystery blue mineral was seemingly impervious to most known solvents and simple testing. One interesting note is a trace of copper had shown up in initial analytical testing. Copper is a well-known blue coloring agent in minerals, so this tended to confirm the blue mineral was probably legit.

Dr. John Rakovan (Miami University, Oxford Ohio) did some preliminary testing with inconclusive results but then did more in-depth testing using Raman Spectroscopy, and this finally revealed the truth. The blue material was a dye that is almost impossible to detect and which is extremely colorfast. This result means ordinary analysis would not dislodge it or reveal its presence. Plus, the specimens' physical characteristics appeared perfectly natural and explainable, such as blue hemimorphite crystals with snow-white calcite crystals. How was this selective dyeing done? The testing by Dr. Rakovan finally revealed the culprit. What was used is a synthetic blue pigment, called Phthalocyanine Blue BN, an organic dye. This dye is not easy to remove because it is stable, which explains why ordinary chemical tests showed nothing unusual.

MR. ROCKHOUND DOES IT AGAIN **Jones exposes fakes** **Defines blue hemimorphite** **Amazing Rockhound**

By the time 2022 rolled around information about the scam had traveled around the circuit and dealers with excess stock sold specimens at great discounts (and probably lost money). My label, without a dealer's name, is quite honest as it states "Dyed." The specimen has a prominent place on my shelf and is a great object for Show & Tell!

Continued ...

Hemimorphite is a hydrated zinc silicate $[\text{Zn}_4\text{Si}_2\text{O}_7(\text{OH})_2 \cdot \text{H}_2\text{O}]$ that occurs in several environments, colors, lusters, and for decades was confused with the zinc carbonate, smithsonite $[\text{ZnCO}_3]$. The name comes from doubly terminated crystals where the terminations have different faces (hemimorphic development). The crystals have a white streak, a vitreous luster, ~5 hardness (Mohs), are colorless and transparent to translucent, and come from the oxidized zone of zinc-bearing mineral deposits. With a zinc component of over 50%, hemimorphite is a minor ore of zinc.

As I finish this manuscript for Editor John it is Monday October 10, Indigenous Peoples Day, and also one of the best nights to observe the Hunter's Moon. This full moon follows the Harvest Moon which is the full moon closest to the Autumnal Equinox. The Harvest Moon is the closest to the Equinox and so may come before or after this September event. This "quirk" then allows the Harvest Moon to occur in either October or early November. At any rate, the Harvest Moon was absolutely beautiful this year. Officially the full moon was October 9; however, it certainly will appear orange and full tonight.

I recently returned from La Crosse, Wisconsin, and in order to catch the Sunday morning flight out of Minneapolis/St. Paul I left La Crosse at 4:00 AM. This three-hour drive allowed me to observe the Harvest Moon slowly moving across the clear and light-free sky and setting about the time I arrived at MSP. An extra treat was seeing the moon following nearby Jupiter on their same

path across the sky. I find such events to be life sustaining and a joy to observe.

Joy is the holy fire that keeps our purpose warm and our intelligence aglow.

- Helen Keller



Theiophytalia kerri: A Garden of the Gods Dinosaur

by
Sawyer Blizzard

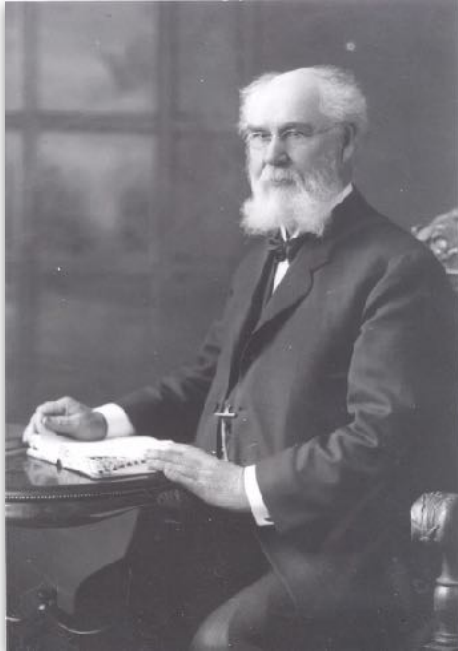


Fig 1: Professor James H. Kerr taught mining and metallurgy at Colorado College. *Courtesy of Special Collections, Tutt Library, Colorado College, Colorado Springs, CO.*

In Garden of the Gods Park in Colorado Springs, large upright slabs of rock stand tall above the surrounding landscape, a breathtaking remnant of the ancient sand dunes that accumulated there. A dinosaur named *Theiophytalia kerri*, an herbivorous 5 m (16 ft) long ornithomimid dinosaur, lived there during the early Cretaceous. It is only known from one specimen, a fossilized skull found in the Garden of the Gods area.

In 1878, Professor James H. Kerr (figure 1) from Colorado College found a skull (figure 2) in, what was originally thought to be, the late Jurassic Morrison formation (Walker and Johnson, nd). It caught the attention of an acquaintance of Kerr, paleontologist O.C. Marsh. Marsh identified the skull as that of a *Camptosaurus*, a dinosaur commonly found in the Jurassic rock of the Morrison Formation. Marsh put the skull in storage at the Yale Peabody Museum where it was forgotten (Garden of the Gods Visitor Center wall text, n.d.).



Fig 2: This partial skull is the holotype and only known specimen of a brand-new genus and species of dinosaur: *Theiophytalia kerri*. The skull is on display at the Garden of the Gods visitor center, Colorado Springs, Colorado. *Photo by James St. John, Creative Commons Attribution 2.0 Generic license.*

In 1995, 117 years later, while the Garden of The Gods visitor center was under construction, two employees, Lenore Fleck and Melissa Walker, inquired with Kirk Johnson, a Paleontologist at the Denver Museum of Nature & Science, about a planned dinosaur exhibit (Brill and Carpenter, 2006). Johnson then referred them to a colleague of his, paleontologist Kenneth Carpenter, who said, “I think I have an article in my files about a dinosaur fossil that was found in Garden of the Gods. If I find it, I’ll send it to you.” He later mailed them an article that read: “*Camptosaurus amplus* No. 1887, Yale Museum consisting of portions of the skull and lower jaw. It was collected...in deposits in the Garden of The Gods, Colorado Springs, Colorado.”

With this specimen was found the following note in Professor O.C. Marsh’s handwriting: “Part of this animal and various Sauropoda bones were taken out by Professor Kerr in 1878” (Garden of the Gods Visitor Center wall text, n.d.).

Johnson flew out to the Yale Museum and hand-carried the *Camptosaurus* skull back to Denver for Carpenter to make a cast replica of it for the exhibit (Walker and Johnson, nd.). While Carpenter was casting the fossil, however, he noticed various inconsistencies and irregularities in the skull’s structure. He decided to re-examine the *Camptosaurus* fossil when he had the chance to. Finally, in 2006, Carpenter, along with one of his associates, Kathleen Brill, had finished an in-depth reassessment of the skull (Walker and Johnson, nd). It was concluded that the differences between the supposed *Camptosaurus* skull and a genuine *Camptosaurus* skull were significant enough to determine that it belonged to a new dinosaur and not a *Camptosaurus* (Brill and Carpenter, 2006). Carpenter decided to name the new Iguanodon relative *Theiophytalia kerri*. *Theiophytalia* meaning “belonging to the Garden of the Gods,” and *kerri* in honor of James H. Kerr who first discovered the fossil skull.

Because the only known specimen of *Theiophytalia* is a singular fossilized skull, its full appearance is unknown, and reconstructions of the dinosaur are mostly speculation based off



Fig 3: A model of *Theiophytalia Kerri* displayed at Garden of The Gods visitor center, Colorado Springs, Colorado.
Photo by Steven W. Veatch.

other closely related dinosaurs. It also isn't known where exactly *Theiophytalia* was found besides the vague recollection of James Kerr telling O.C Marsh that it was found “In one of the ridges east of Garden of The Gods” (Garden of the Gods Visitor Center wall text, n.d.). With an overly broad area where it may have been discovered, it is heavily debated where the exact location where it was found could be. The exact type of rock where it was found would have given us a clear picture of what its environment and habitat would have been like.

Continued ...

However, although we may not know exactly where it was found, with the knowledge of what America was like during the early Cretaceous, we can put together what the basic environment may have been like for *Theiophytalia*. It lived from 125 to 100.5 million years ago, and the area was most likely a coastal, tropical forest near to the newly forming Western Interior Seaway. It may have shared this environment with a relative called *Tenontosaurus* and was possibly preyed upon by the predatory raptor *Deinonychus* and the large theropod dinosaur *Acrocanthosaurus*.



Fig 4: A reconstruction of what *Theiophytalia kerri* might have looked like. Artwork by Andrey Atuchin, used with permission.

Thus concludes the life, history, and rediscovery of *Theiophytalia Kerri*. Its life is shrouded in mystery and uncertainty thanks to the single specimen along with the unknown location of said specimen's discovery. Today, *Theiophytalia* is barely a footnote compared to the much more famous and common dinosaurs of the early Cretaceous, but *Theiophytalia* will hold a special place in our hearts as the mascot dinosaur of Garden of the Gods Park in Colorado Springs. Perhaps one day we will find another specimen that will help us understand more about this dinosaur, and finally rectify Professor Kerr's inadequate note taking.

References and Further Reading:

Walker, M., K. Johnson, How A Case of Mistaken Dinosaur Identity Became the Story of A Brand New Dinosaur: retrieved from <https://friendsofgardenofthegods.org/dinosaurs-in-the-garden> on October 1, 2022.

Brill, K., K. Carpenter, 2006, A description of a new ornithopod from the Lytle Member of the Purgatoire Formation (Lower Cretaceous) and a reassessment of the skull of *Camptosaurus*. *Horns and Beaks: Ceratopsian and Ornithopod Dinosaurs*. 49-67.

Garden of the Gods Visitor Center, n.d., [wall text] *Theiophytalia kerri*, Colorado Springs, CO.

Underground

Steven Wade Veatch

Thunderstorms batter the sky.
The porch shakes while lightning wages war.
Black and purple mix like a bruise.
Wind whirls through the aspens.
Icy rain soaks the ground—
wet soil and decaying leaves
smell like an underground mine.
Dank scents bring memories
with annotations. My thoughts spin
then strike the borderland of my memories,
breaking through to a place
of shafts, dimly lit voids, and ore carts.

My great grandfather trudges
through confining spaces, groaning timbers,
dripping water, and rusting rails.
Muddy places smear his clothes with grime.
His pick bounces off rocks again and again.
Booming blasts fill the drifts with acrid
smells. A taste of sulfur lingers.

I see him reach down and scoop
up a handful of gold ore,
he lets it fall through his fingers,
and tells me how to live.
So much to remember.
I should have listened more,
but I am far away.

The blackness swallows
the flickering light of his candle
and his face recedes from view.
His words flood my mind—
a generational reckoning—
part of my ritual of becoming.
I carry some stories, like blaring bells,
others I have lost.

In me, these inheritances manifest:
a lifelong journey toward a glittering
horizon, but I never get there.
I should have listened more,
and now my time is gone.



Elkton mine, Cripple Creek Mining District. The author's great grandfather worked in this mine for over two decades. *Photo date 1894, courtesy of the Cripple Creek District Museum.*



Great News!

I will be doing talks at Howbert Elementary School (Outdoor Adventure School site) in November and December for several grades and an all-day Earth Science Day in the media center. Our foot is in the door and our hope is that this will expand and expose the students to our club and Earth Science throughout the city.

Outreach Programs are Rocking!

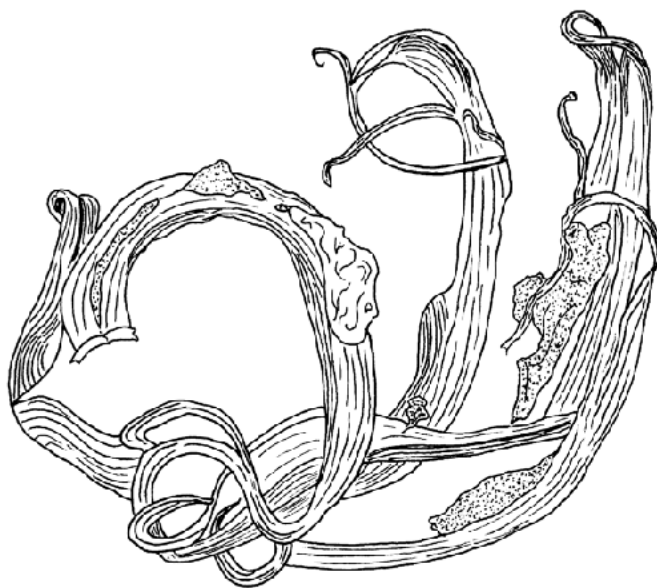
We have had a busy October for our outreach programs throughout our city in October. We had a huge success with our scout talk with over 70 scouts at Cheyenne Mountain Elementary, the largest group the Pups and Scholars have had since I took over. A big shout out to Frank R. and Kathy M. for all the amazing help to make the scouts event Rock. Fossil Day at Garden of the Gods was also a big hit on Saturday 15th over 5200 people came through the doors and kept us rolling fast all day. Our former Scholar Blake R. and new scholar Sawyer B. assisted our small and large visitors with a smile and passion for fossils with our fossil dig and dinosaur/ fossil sections.

November Pups and Scholars Meeting

The lesson this month is on Native American Geology and the impact on the past, present, future geology studies. We will have raw materials, real artifacts and free samples featuring obsidian recently donated by a club member. 11/17/22 at 5:30 -6-15 Mt Carmel Veteran Center. Thank you to everyone that has donated buckets and samples for pups and our club outreach programs. Please be thinking of poems or art. The next two months focus on Earth Science. Several museums and government agencies are looking for student work to be submitted and possible awards and scholarship money. Thanks.

Mineral of the Month

Silver- Ag symbol, Silver is a white metallic colored mineral, lustrous, and soft 2.5 Hardness scale. Silver is a precious mineral known for thousands of years by most civilizations used as art, jewelry, metallurgy, and most recently technology. If Gold was Batman silver would be Robin in the precious and rare world of super minerals. Silver is found in Colorado and around the world. Fun fact is that silver is a germicide and can kill bacteria but is nontoxic to humans. The demand for silver is increasing again as technology and investors are driving the price of silver higher. Color the silver mineral and turn it in for a special sample at our next meeting.





REPORT General Assembly 20 Oct 22

Hearty rockhounds gathered Thursday night Oct 20, 2022 in Colorado Springs for the monthly CSMS General Assembly. Member-at-Large and certified gemologist Bill Myers spoke to us about gem identification. Jack Null, winner of the 2022 Pikes Peak Gem and Mineral Show Peoples Choice Award and Roger Pittman, winner of the 2019 Pikes Peak Gem and Mineral Show Peoples Choice Award were presented with their awards.



Left: Roger Pittman stands with his display case at the 2019 Pikes Peak Gem and Mineral Show.
Right: Jack Null stands with his display case at the 2022 Pikes Peak Gem and Mineral Show.



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.

RMFMS 2022 Editor's Contest award, the following contest winner was not previously reported in the Pick & Pack:

Jonathan Hair, "Impact Gold," 4th place RMFMS - congrats!

Rockhounds of the Year

The votes are tallied! Rockhound of the year is CSMS Member-at-Large **Chris Burris** and Junior Rockhound of the Year is Pebble Pup member **Sawyer Blizzard**. Congrats to both!

Chris Burris served tirelessly as Member-at-Large on the CSMS board. He has been passionate in his efforts to educate club members about rockhounding. He led field trips and made sure new club members got a chance to get out in the field when they were ready. Chris has a knack for finding fascinating fossils, gems and minerals in the field, which he frequently brought to general assembly to share and teach fellow rockhounds. Chris's efforts have been crucial in sparking gem and fossil fever in club member hearts.

Sawyer Blizzard has been applying himself to a rigorous course of study with geologist and club member Steven Wade Veatch, complemented by studies at the Western Museum of Mining and Industry. He has been disciplined in learning writing and research skills in paleontology and historical geology. Sawyer volunteered for Fossil Day at Garden of the Gods this year and wrote a paper entitled, "*Theiophytalia kerri*: A Garden of the Gods Dinosaur," published in this very issue of the *Pick & Pack*. Sawyer Blizzard is a scholarly inspiration to his fellow pebble pups.



(Partial) 2022 AFMS Editor's Contest Results (CSMS)

2022 AFMS BULLETIN EDITOR'S CONTEST							
Award	Large Bulletins - Bulletin	Issue	Club		Editor	Federation	
1st	The Rock Bag OGMS Bulletin	December	Oxnard Gem & Mineral Society		Laura Driskel	CFMS	
2nd	CSMS Pick & Pack	November	Colorado Springs Mineralogical Society		John Emery	RMFMS	
3rd	Rock Buster News	February	Central Pennsylvania Rock & Mineral Club		Brittany Martin	EFMLS	
4th	The Hot Springs Bulletin	October	The Hot Springs Geology Club		Raymond Lynch	SCFMS	
5th	The CMS Tumbler	October	Cascade Mineralogical Society		Keith Morgan	NFMS	
6th	Rockenteur	August	Santa Lucia Rockhounds		Amy Phillips	CFMS	
7th	Rocky Echoes	January	Mississippi Gem & Mineral Society		Rosina Echols	SFMS	
8th	Burlington Gem & Mineral Club Newsletter	Nov/Dec	Burlington Gem & Mineral Club		Alice Wack	EFMLS	
9th	The Mountain Gem	September	Franklin Gem & Mineral Society		Stacy Walbridge	SFMS	
10th	Breccia	September	Santa Clara Valley Gem & Mineral Society		Josephine Borucki	CFMS	
HM	Flatirions Facetsr	Sept/Oct	Flatirons Mineral Club		Dennis Gertenbach	RMFMS	
HM	Jade State News	June	Wyoming State Mineral & Gem Society		Ilene Olson	RMFMS	
Award	Adult Articles Advanced - Title	Issue	Author	Club	Editor	Federation	
1st	"An Answer to the Pandemic Blues: A Road Trip to the Kansas Cretaceous Chalk Beds"	July	Mike Nelson	Colorado Springs Mineralogical Society	John D. Emery	RMFMS	
2nd	"Two New Minerals to Science, Named for Arkansas Geologists"	March	J. Michael Howard	The Hot Springs Geology Club	Raymond Lynch	SCFMS	
3rd	"Walking Among Ghosts: Ironton, Colorado"	February	Steven Wade Veatch	Colorado Springs Mineralogical Society	John D. Emery	RMFMS	
4th	"Caliperite - A Newly Discovered Rock Occurrence"	May	David Springer	Ventura Gem & Mineral Society	Celia Churchill	CFMS	
5th	"School Collections"	February	Stephen Blyskal	Houston Gem & Mineral Society	Sigrid Stewart	SCFMS	
6th	"My Bathroom Rocks!"	April	Keith & Barbara Noyes	The New York Mineralogical Club	Diane Beckman	EFMLS	
7th	"Where in Colorado?"	Sept/Oct	Dennis Gertenbach	Flatirons Mineral Club	Dennis Gertenbach	RMFMS	
8th	"Collecting Jasper Cobbles at Punta Gorda"	January	Jim Brace-Thompson	Ventura Gem & Mineral Society	Celia Churchill	CFMS	

(Partial) 2022 AFMS Editor's Contest Results (CSMS)

Award	Written Features - Title	Issue	Author	Club	Editor	Federation
1st	"I Have a Scratch and I Can't Itch It!"	September	Daniel Hogan	The Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
2nd	"Shop Time"	December	Terry Roberts	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS
3rd	"Crossword Puzzle - Geology Quiz"	November	John Emery	Colorado Springs Mineralogical Society	John Emery	RMFMS
4th	"Hematite, Iron Mines, Rock Shops & Rainbows - A Rockhounding Trip to Michigan"	September	Susan Satchwill	The Three Rivers Gem & Mineral Society	Michele Yamanaka	MWF
5th	"Becky Whisenant"	April	Becky Whisenant	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS
6th	"A Rock Show (At Last!) and the Grandeur of Wyoming"	July/Aug	Steven Dumortier	Show Me Rockhounds of Kansas City	Valerie J. Myers	MWF
7th	"Collecting at the Red Cloud Mines of Lincoln Co., NM"	February	Andy Thompson	Mineralogical Society of the District of Columbia	Ken Rock	EFMLS
8th	"Adventures in Flint-Knapping: Chapter 4, Point Styles and Time Periods, Part 3-Mississippian Period"	July	Terry Comfort	Mississippi Gem & Mineral Society	Rosina Echols	SFMS
9th	"Field Trip Reviews: Stepping Back in Time"	May/June	Nancy Roberts	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
10th	"May 15, 2021 Meeting Program Review: 'Making Micromounts'"	December	Rebecca Vallarian	North Mississippi Gem & Mineral Society	Nancy Roberts	SFMS
HM	"Graves Mountain, Georgia"	April	Charles Snider	The New York Mineralogical Club	Diane Beckman	EFMLS
HM	"Picturing the Past: The Golden Age of Field Trips (1956-1959)"	September	Jim Brace-Thompson	Ventura Gem & Mineral Society	Celia Churchill	CFMS
HM	"Experiencing the East Coast Gem, Mineral & Fossil Show"	December	Ben Dolphin	The New York Mineralogical Club	Diane Beckman	EFMLS
HM	"Fluorite: Mineral of the Month at the Western Museum of Mining and Industry"	October	Ben Elick	Colorado Springs Mineralogical Society	John Emery	RMFMS
HM	"Flying Termites"	February	Joshua Hair	Colorado Springs Mineralogical Society	John Emery	RMFMS
HM	"Pebble Pups Page"	August	Louisa May Carey	Oxnard Gem & Mineral Society	Laura Driskell	CFMS
Award	Adult Poetry - Title and Author	Issue	Author	Club	Editor	Federation
1st	"Rock Story"	December	Sigrid Stewart	Houston Gem & Mineral Society	Sigrid Stewart	SCFMS
2nd	"Brothers"	March	Steven Wade Veatch	Colorado Springs Mineralogical Society	John Emery	RMFMS
3rd	"Rockhounds Must Be Tough"	September	Betsy Oberheim	Central Pennsylvania Rock & Mineral Club	Brittany Martin	EFMLS
4th	"Stones for Christmas"	December	Carolyn Hiwe	Oxnard Gem & Mineral Society	Laura Driskell	CFMS
5th	"The River"	September	Barbara Braun	East Texas Gem & Mineral Society	Sarah Hawthorne & Julia Toombs	SCFMS

Too Many Rocks and Minerals and Fossils too

By David ST. John

I need a bigger house and yard

Being a rock hoarder can be so hard

I have them in jars, windows sills, pockets, and under the bed

In my van, shelves, and in my head

My wife has banned me from going to shows

I might have to kick her out because I find them wherever I goes

I have them in the front yard and in the back

Fossils can be found in my plants, boxes and in a cloth sack

And when I pass to the great rock hounding place

I hope that someone will share them with children so I can see their amazed face.



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.rmfmms.org