

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society

Founded 1936

~ Lazard Cahn ~
Honorary President

"Pick & Pack"

Volume 63 No. 5

June 2023

CSMS General Assembly

Thursday, June 15, 2023 7:00 PM Mt. Carmel Veterans Center

Program Speaker:

~ Rick Sauers ~

Curator, Western Museum of Mining and Industry

M-Z BRING SNACKS

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

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

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Rick Sauers - Some of the Hidden History of Cripple Creek



Rick Sauers, Curator, WMMI. Photo Credit: wmmi.org

A native of Lewisburg, Richard A. Sauers received his B.A. in history from Susquehanna University, and both his M.A. and Ph.D. in history from The Pennsylvania State University. Sauers is the author of more than two dozen books, including the highly-acclaimed twovolume Advance the Colors! Pennsylvania Civil War Battle Flags (1987-1991), A Succession of Honorable Victories: The Burnside Expedition in North Carolina (1996), Meade: Victor of Gettysburg (2004), America's Battlegrounds (2005), and The Fishing Creek Confederacy: A Story of Civil War Draft Resistance (2013). Sauers has been in the public history arena since 1984, currently serving as the curator of the Western Museum of Mining and Industry in Colorado Springs. Sauers has been a speaker at many historical organizations and conferences, and was honored to be a part of the 1996 conference that developed a conservation plan for the Star-Spangled Banner.

Sauers will speak to the CSMS General Assembly at Mt. Carmel Veterans Center on Thursday, June 15, 2023. He is working on what will be the first documented, footnoted study of the Cripple Creek Mining District and his talk will feature some of his current research.

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

| CSMS Group Calendar | | | | | | | | |
|---------------------|---------|----------------|----------|---------|--------------------|--------------------------------------|------------------------------|--|
| Jun '23 | Jul '23 | | | • | | | | |
| 14 Jun | 12 Jul | Fossil Group | 2nd Wed | 6:00 PM | East Library Annex | Kristine Harris Richard Villareal | 719-593-1524 831-760-6985 | |
| 1 Jun | 6 Jul | Board Meeting | 1st Thur | 6:00 PM | Zoom | John Massie | 719-338-4276 | |
| 6 Jun | 11 Jul | Pebble Pups | 1st Tue | 4:15 PM | East Library | David St. John | 719-424-9852 | |
| 15 Jun | 20 Jul | General Assy | 3rd Thur | 7:00 PM | Mt. Carmel Center | John Massie | 719-338-4276 | |
| 22 Jun | 27 Jul | 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 (Pete Modreski)

June 9-11: Pikes Peak Gem, Mineral and Jewelry Show, Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Fri. Noon-7:00 PM, Sat. 10-5, Sun. 10-4. Set up on the 8th. Admission \$5 per day, \$8 for multiple days, 12 and under free. Sponsored by the Colorado Springs Mineralogical Society. World's best gem show.

Jun 19: 2:00-3:00 PM, Denver Museum of Nature & Science, Earth Science Colloquium, "Linked Ecologies: Connecting invisible pasts and actionable futures," by Anshuman Swain (Harvard). In the VIP Room. Enter through the staff/volunteer entrance.

Jul 13: 2:00-3:00 PM, Denver Museum of Nature & Science, Earth Science Colloquium, "Usurpers and insinuators: Competition and environmental change in the Great American Biotic Interchange in mammals," by Marie Hoerner (CU - Colorado Springs). In the VIP Room. Enter through the staff/volunteer entrance.

Aug 24: 2:00-3:00 PM, Denver Museum of Nature & Science, Earth Science Colloquium, "Mass extinctions and high resolution astrochronology in the Upper Devonian: Tales from New York and Colorado," by Jeff Over (SUNY Geneseo). In the VIP Room. Enter through the staff/volunteer entrance.

Oct 10: 2:00-3:00 PM, Denver Museum of Nature & Science, Earth Science Colloquium, "To Xiphactinus and beyond: The savage seas of ancient Kansas," by Anthony Maltese (Rocky Mountain Dinosaur Resource Center). In the VIP Room. Enter through the staff/volunteer entrance.

Nov 6: 2:00-3:00 PM, Denver Museum of Nature & Science, Earth Science Colloquium, "Our Earth was completely frozen? Twice?," by Carol Dehler (Utah State U.). In the VIP Room. Enter through the staff/volunteer entrance.



Finding Balance

by David St John

A rock and a hard place
I wish I had a brace
So I can keep this beauty standing tall
Mother Nature will decide when she will fall
I may be the last to see her intact
The Earth recycles and that's a fact

Photo: Ahodges7 with permission at Wikimedia Commons; photo was cropped by the editor. https://commons.wikimedia.org/wiki/File:Balance_Rock, Garden_of_the_Gods, CO.jpg



Federation News Post

American Federation of Mineralogical Societies Rocky Mountain Federation of Mineralogical Societies



AFMS ENDOWMENT FUND

by Richard Jaeger

I am the Rocky Mountain Federation Regional Chairman for the AFMS Endowment Fund. Cheryl Neary, a member of the Eastern Federation, is the AFMS Endowment Fund Chair and the AFMS Central Office Administrator.

Basically, this is a raffle drawing with tickets being sold at \$5 each or five tickets for \$20. The drawing will be held at the NFMS/AFMS Convention in Billings, Montana in August. People from around the American Federation donate prizes for the raffle, which may be jewelry, crystals, minerals, fossils, books, or other items, each valued from \$75 to \$200. The drawing is handled so there is at least one winner from each of the seven regional federations; last year we had five winners from the Rocky Mountain Federation. We usually have about three or four winners from the RMFMS.

As items are donated, pictures of them will appear in the AFMS Newsletter and on the American Federation Website, <amfed.org>. There are usually around 30 items.

This is a major way to financially support the American Federation's efforts on behalf of our hobby. Currently the funds go towards the Junior Rockhound Program, Judges Training, and preparing Programs for distribution to Regional Federations (programs that can be used by individual clubs). Over \$5,000 was raised last year.

Purchasing the tickets: Cheryl requests that your checks for tickets be sent to the regional chairs (for RMFMS, send to Richard Jaeger, 3515 E. 88th St., Tulsa, OK 74137) so we can issue tickets and have a record of who has entered. Checks should be made payable to the "AFMS Endowment Fund."

We then forward those checks to Pat LaRue, the AFMS Treasurer. I will fill out the proper number of tickets for each contribution, send the stubs to the donating individual, and get the tickets to the NFMS/AFMS Show in Billings in August to be put into the RMFMS bag. There will be at least one general prize ticket, maybe two or three, drawn from each of the bags for the seven regional federations. After that, all tickets will be dumped into one bag, and further drawings will take place until all the prizes have been awarded.

I hope that many of you will participate and hopefully be winners in Billings. You need not be present to win. I would also be happy to accept any donated prizes for the raffle or they can be sent directly to Cheryl Neary; the more prizes, the more winners, and hopefully, more money raised. Cheryl's address is: 42 Jefferson Ave., Patchogue, NY 11772. My wife and I are each donating a piece of jewelry for Endowment Fund prizes. My contact information is provided below. Please share this information with your club members and thanks for your consideration.

Please purchase some tickets - and hopefully get your ticket drawn in Billings in August.

Richard D. Jaeger 3515 E. 88th St. Tulsa, OK 74137-2602 918-481-0249 RjgrSci@aol.com

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.

President's Corner

John Massie CSMS President



2023 Satellite Group Chairs

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

2023 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:

The Pikes Peak Gem, Mineral and Jewelry Show is this coming weekend. As a reminder we set up the Show Thursday the 8th and Friday Morning the 9th. The Show starts at 12:00 PM on the 9th and goes to 7 PM. Saturday the show goes from 10 AM to 5 PM on Saturday, and 10 AM to 4 PM on Sunday. We then tear down the show starting at 4 PM on Sunday.

I want to thank all the volunteers who signed up to help with the show. The show will start another great year for CSMS!

John Massie CSMS President



20 hearty rock hounds gathered for a field trip to the New Hope amethyst claim in Cañon City, 27 May 23. They were led by Patrick Hale of the Cañon City club and Pueblo Rockhounds, as well as guide Kit.

Secretary's Spot

John McGrath

2023 CSMS Officers

John Massie, 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 Sharon Holte, Past President

2023 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

CSMS General Assembly Minutes 7 PM, Thursday 18 May 23, Mt Carmel Vet Center, Co Springs

Address: 530 Communications Circle, Colorado Springs CO 80905

Board Attendance: President: John Massie, Secretary: John McGrath, Member-at-large: Chris Burris, Member-at-Large: Bill Meyers, Editor: John Emery.

Agenda:

- I. Meeting was called to order by our President John Massie at 7:13 PM
- II. The Pledge of Allegiance was led by our President John Massie
- III. Introduction of Guests: None
- IV. Introduction of New Members: Shannon Atkinson, Wes Ziegler, Robyn Douty, Brenda
- V. Program Speaker Brian Busse
 - A. Speaking to us from Arizona via Zoom
 - B. Owner of the "Thank you Lord Aquamarine mine" on Mt Antero.
 - C. Described his philosophy of rock hunting and collecting
 - D. Marge and Brian shared some memories of rock hunting together
 - E. Brian described multiple locations to collect garnet, epidote
- VI. Meeting There were 37 members/quests in attendance and 5 minerals were given out.
- VII. Officer Reports
 - A. President John Massie
 - 1. Asked for volunteers for the Gem Show setup and ticket sales
 - 2. General Meeting Notes from April were approved by voice vote.
 - 3. Advised us on the General Meeting after the Mineral Show which would be focused on new members who sign up at the show
 - B. Vice President Shane Riddle, VP, absent
 - C. Treasurer Ann Proctor- absent
 - D. Secretary John McGrath Present. No report.
 - E. Membership Secretary Adelaide Bahr, absent
 - F. Editor John Emery. Present, No Report
 - G. Members at Large
 - 1. Bill Myers Present. No report
 - 2. Chris Burris Present. No report
- H. Past President Sharon Holte, Absent
- I. Website and Show Coordinator Lisa Cooper, Absent
- VIII. Satellite Groups
 - A. Crystal Group Kevin Witte present. Next meeting Thursday night at Mt Carmel at 7pm. Last meeting prior to the summer break.
 - B. Faceting Group John Massie reiterated that you only need to contact him to bring the machine to your house.
 - C. Pebble Group -David St John, present, The Club will continue to meet at the East Library at 4:15 PM which parents have told him is the best time period. Meetings will continue throughout the Summer.
 - D. Fossil Group -Kristine Harris and Richard Villareal stated that meetings are held the 2nd Wednesday of the month from 6-7:30 PM at the East Library Annex.
 - E. Jewelry Group still in need of a Chairperson
 - F. Lapidary Group Sharon Holte, absent, but John Massie reminded everyone that Sharon takes calls after 6:30 pm on Sunday or emails at anytime.
- IX. Liaisons
 - A. Claims -. Frank Rosenberg. Present. No Report.
 - B. Field Trip Coordinator Kyle Atkinson, Present. Field Trips are upcoming as listed in the Pick and Pack.
 - C. Social Coordinator Tina Cox, absent.
- D. Store Keeper Ann Proctor. Absent.
- X. Unfinished Business None discussed.
- XI. New Business none.
- XII. Meeting adjourned by President John Massie at 8:39 pm

Respectfully Submitted

John M McGrath MD COL (RET) USA

Denver Show and Ettringite in Your Driveway

Mike Nelson csrockguy@yahoo.com



Ready for opening bell

I had the opportunity to attend for one day, a very loooong day, the Spring 2023 Denver show at the Crown Plaza DIA. My initial impressions were: 1) it was a very large show and I counted over 100 dealers; 2) prices continue to move upwards, just as groceries and my home

utility bills; 3) the Friday show attracted a large crowd; and 4) I saw CSMS dealers Austin with "assistant" Kevin, and Joe Dorris at their booths, and Leonard Himes from Monument was nearby.



Above: Hematite included quartz from Morocco, Dan & Barb Stephens. \$100. Photo: M. Nelson



Above: Boxes of attractive shattuckite, a copper silicate $[Cu_5(Si_2)_6)_2(OH)_2]$ from Democratic Republic of Congo (boxes are labeled Zaire). Most are in the \$200 range. *Photo: M. Nelson*



Above: Dennis Beals of Colorado (Denver area and a friend of CSMS) had this beautiful specimen of calcite from Santa Eulalia, Mexico. Dennis is always good for a wild tale or two about his southern collecting trips. *Photo: M. Nelson*



Above: Binghamite is a lapidary term referring to a rock consisting of fibrous amphiboles intergrown with quartz. The amphiboles are mostly altered to a complex mix of quartz, siderite, and various iron and manganese oxides such as hematite and goethite. Rough material comes from the iron range mines in Crow Wing County, Minnesota. *Info from MinDat. Photo: M. Nelson*



Above: I always like polished labradorite with iridescent effects. Usually out of my price range! *Photo: M. Nelson*



Above: And if all those faceted gems and semi-gems did not get you excited, there were always magic minerals to peruse. External of the show one might be able to buy magic weed and perhaps scrounge up some magic shrooms — after all this is Colorado, a pretty magic place to live. Travelers, just remember to clean out your luggage before flying home. *Photo: M. Nelson*

Why Do You Want To Know?

I came home with only a few specimens from the Show, and one was a nicely colored group of hexagonal ettringite crystals [Ca₆Al₂(SO₄)₃(OH)₁₂-26H₂O]. The question for this article then becomes, *Why Do You Want To Know about ettringite and other things?*

Ettringite is an interesting mineral, a hydrous calcium aluminum sulfate, and is somewhat confusing to me. At the Type Locality (TL) in Rhineland-Palatinate, Germany, ettringite crystals are tiny, hexagonal, gemmy clear, and many have nice terminations with rhombohedral faces—think quartz look-a-likes. A few are even very thin, white fibers. Crystals at the TL are associated with metamorphosed limestone.

Talk to a construction/economic/chemical mineralogist and they will tell you that ettringite is a "hexacalcium aluminum tri-

sulfate hydrate" that is formed in Portland cement as a result of the reaction of tricalcium aluminate (C₃A) with calcium sulfate (CaSO₄): $C_3A + 3 CaSO_4 \rightarrow$ ettringite (Merlini and others, 2008). Did you ever wonder why freshly poured concrete gets warm (one of life's persistent questions)? The C₃A (calcium oxide mixing with aluminum oxide) hydration reaction is very exothermic and occurs quickly in the fresh concrete mix; the temperature increases with the fast progress of the reaction. The workers "in the know" (those cement chemists) then add gypsum [CaSO₄·2H₂O] and other materials [perhaps heated (sintered) limestone, clay, fly ash. etc.] to the Portland cement and control the concrete setting. It seems like gypsum allows ettringite to coat the C₃A grains and slows down the hydration (Divet, 2000). WOW. I thought you simply added some sand and water to a bag of cement, mix, and presto with some time you get hard concrete! However, concrete chemistry is a very complex subject, way above my pay grade.

Above: Ettringite crystals formed in concrete. I am guessing this is a SEM photomicrograph with the longest crystal ~ 40 microns. Credit Farnam's Research Group at Drexel University, Drexel Advanced and Sustainable Infrastructure Materials Lab for the photo. Published in National Precast Concrete Association / Precast Magazines / Precast Inc. Magazine / 2018 – July-August.

All of these ruminations on cement mixing bring back, from the far reaches of my mind,

some unpleasant memories of a 7:30 AM class on construction mineralogy (mainly taught to civil engineering students) or some such thing. Luckily, I was auditing the class and did not take the tests. That choice was a masterful stroke of genius on my part since I understood very little of what was going on, especially at 7:30 AM. And finally, don't be confused with the chemistry as those pesky cement chemists use their own chemical notations such as C = CaO or calcium oxide and $A = Al_2O_3$ or aluminum oxide!

I need to unpack some of that material from my mind and toss it in the garbage. But hold on—as a life-long learner I now know why concrete heats up when poured, and the need to spray water on fresh concrete to retard evaporation and slow down the hydration and produce stronger concrete. That little bit of learning eases my rumbling mind!!



Above: Crystals of tan to lemon-yellow ettringite. The dark (black) mineral is some sort of manganese oxide, probably manganite [Mn³+O(OH)] while the chalky white mineral is most likely oyelite [Ca₁₀Si₈B₂O₂₉ · 12.5H₂O]. Width FOV top ~1.6 cm, middle ~1.7 cm, bottom ~6 mm. *Photos: M. Nelson.*

All of this chatter leads me back to ettringite from the Denver show. Many rockhounds have nice yellow to lemon-yellow ettringite crystals in their collection and would not recognize minerals from the Type Locality nor realize that their sidewalk probably has tiny ettringite crystals. Almost all collectable ettringite crystals come from the Kalahari Manganese Field in the northern Cape Province, South Africa, especially from the N'Chwaning Mines and some from the Wessels Mine. These mines were not really operational until the 1970s and 1980s; therefore, the great mineral specimens from the mines only appeared on the market in the last 50 years or so. MinDat noted that "apart from their ore-producing significance [manganese], the N'Chwaning mines are notable and famous among the mineral collecting community for producing highquality mineral specimens of rhodochrosite, manganite, ettringite, inesite, jouravskite and other minerals. The majority of the major mineral finds documented originate from the N'Chwaning II shaft [production started in 1981]... The manganese ores of the Kalahari Manganese Field are contained within sediments of the Hotazel Formation of the Grigualand West Sequence, a subdivision of the Proterozoic Transvaal Supergroup." These late discoveries explain why my favorite mineral book, Encyclopedia of Minerals (Roberts and others, 1974), does not mention the Kalahari ettringite.

So, to answer the question posed earlier, I "want to know" about virtually anything since it gives me a purpose in life. It makes my life worthwhile. It is what gets me up in the morning. It keeps me healthy, happy, and hopefully creative. It pumps up my mojo.

References Cited

Divet, Loïc, 2000, State of knowledge on the possible causes of sulfate reactions internal to concrete: Bulletin de Liaison des Laboratoires des Ponts et Chaussées, Number 227.

Merlini, M., G. Artioli, T. Cerulli, F. Cella, and A. Bravo, 2008, Tricalcium aluminate hydration in additivated systems. A crystallographic study by SR-XRPD: Cement and Concrete Research, Elsevier vol. 38, no. 4.

Roberts, W.L., G.R. Rapp, Jr., and J. Weber, 1974, Encyclopedia of Minerals: Van Nostrand Reinhold Company, New York.

About the Author



Mike is a former University professor and administrator who enjoys outdoor activities, and writing articles for the Pick & Pack, other rock and mineral clubs, and the Newsletter of the Rocky Mountain Federation of Mineralogical Societies (www.rmfms.org). He also writes, and occasionally

speaks, about members of the Colorado Cavalry/Infantry who participated in the march to Glorieta Pass (1862), helped settle central Kansas (1865), and later fought at Beecher Island (1868). In CSMS he heads up the Undergraduate Research Committee as introducing students to geology research is a long-time passion. But mostly he just tries to enjoy life with frosty IPAs, travel, and collecting mundane facts and pretty rocks/minerals.









REPORTRocky Mtn High 6 May 23

18 mostly new, but hearty rockhounds gathered atop the Rocky Mountain High claims with CSMS field trip leader Kyle Atkinson (super bright green/yellow shirt) in search of smokies and amazonite.

Kyle reports the trip went well on a beautiful sunlit Colorado day. The pictured sunlit smokie was found by Kyle.

Photos: Kyle Atkinson







Editor's Choice: Sawyer Blizzard "Rock" Star

Editor's note - this special feature documents the highlights of a junior geologist's rigorous endeavors - Sawyer Blizzard.



Meet Sawyer Blizzard, Rock Star. At age 16, Sawyer is a junior member of the Colorado Springs Mineralogical Society (CSMS) and its Fossil Group, led by Kristine Harris and Richard Villarreal, previously by Jerry

Suchan (April 7, 1944 – December 26, 2022). He has also been studying under the tutelage of long time (1965) CSMS member and geologist Steven Wade Veatch the past 10 months (starting Aug 2022). The studies have been focused and intense, requiring serious dedication to continual learning, including writing scholarly papers. Here's the curriculum he's been working on.

August 8, 2022: 3:00 PM to 3:45 PM MT

- Paleontology of the Pikes Peak area
- Assignment: short research paper on Theiophytalia kerri

August 15, 2022: 2:30 PM to 3:10 PM MT

- Lesson on basic paleontology
- Review research paper on Theiophytalia kerri

August 22, 2022: 2:30 PM to 3:10 PM MT

- Lesson on basic paleontology (continued)
- Review research paper on Theiophytalia kerri

August 28, 2022: 230 pm to 310 pm MT

- Lesson on advanced research methods
- Lesson on Google Scholar and Google Books
- Research on Lytle Formation
 - Discussion (email) with Vince Matthews, former Colorado State Geologist
 - Discussion (email) with James Hagadorn, Denver Museum of Nature

September 5, 2022: 2:30 PM to 3:10 PM MT

- Lesson on fossil preservation
- Lesson on fossil labels
- Email discussion on myFossil project and database
- Email discussion and video on how to make tables in Google Docs
- Review paper he was assigned: Theiophytalia kerri
- Assigned to write a poem for National Fossil Day in October.
- Arranged for Sawyer to be a presenter at the National Fossil Day event at Garden of the Gods

September 12, 2022 2:30 PM to 3:10 PM MT

- Review of dinosaur paleontology
- PowerPoint on fossils

September 26, 2022 2:30 PM to 3:10 PM MT

- Natural History of dinosaurs PowerPoint
- More on how to label fossils
- Review paper he was assigned: Theiophytalia kerri
- Sent Sawyer an electronic fossil collection catalog

October 3, 2022 2:30 PM to 3:10 PM MT

- Reviewed how to make a PowerPoint
- Studied Ice Age paleontology and geology
- Review paper he was assigned: Theiophytalia kerri

October 10, 2022 2:30 PM to 3:10 PM MT

- Presentation: History of Life by the University of Bristol
- Review paper he was assigned: Theiophytalia kerri

October 17, 2022 2:30 PM to 3:10 PM MT

- Presentation: Field paleontology
- Review paper he was assigned: Theiophytalia kerri

October 24, 2022 2:30 PM to 3:10 PM MT

- Presentation: Laboratory methods in paleontology
- Review paper he was assigned: Theiophytalia kerri

October 31, 2022 2:30 PM to 3:10 PM MT

- Review field and lab methods in paleontology
- Video on field methods
- Video of lab methods
- Discussion of next project

November 7, 2022 2:30 PM to 3:10 PM MT

- Review on Google Scholar and research methods
- Selected topic for new research paper
- Searched for Concavenator thesis
- Discussed Purgatoire River trackway

November 14, 2022 2:30 PM to 3:10 PM MT

- Worked on scientific writing styles
- Worked on referencing papers

November 21, 2022 2:30 PM to 3:10 PM MT

Review

November 28, 2022 2:30 PM to 3:10 PM MT

Worked on writing and research

Above, next column, and next page: Sawyer's curriculum under the mentorship of CSMS member and geologist Steven Wade Veatch.

December 5, 2022 2:30 PM to 3:10 PM MT

- Discussed MS Word's insert citation method
- Discussed revision processes
- Discussed Sawyer's paper on Concavenator

December 12, 2022 2:30 PM to 3:10 PM MT

 College lecture The Suarichia (Mccalester College St Paul, Minnesota)

December 19, 2022 2:30 PM to 3:10 PM MT

 College lecture The Ornithischia (Mccalester College St Paul, Minnesota)

December 26, 2022 2:30 PM to 3:10 PM MT

 College lecture How Rocks Reveal Dinosaur Secrets (Mccalester College St Paul, Minnesota)

January 2, 2023 2:30 PM to 3:10 PM MT

 College lecture A Dinosaur Mystery in Madagascar (Mccalester College St Paul, Minnesota)

January 9, 2023 2:30 PM to 3:10 PM MT

- Review how to organize science writing
- Tips on writing science papers
- College lecture Tracing the Dinosaur Evolutionary Tree (Mccalester College St Paul, Minnesota)

January 16, 2023 2:30 PM to 3:10 PM MT

- College lecture Birds and Dinosaurs (Mccalester College St Paul, Minnesota)
- Received Concavenator paper from Sawyer for my editing
- Sawyer's paper (Theiophytalia) published by *Ute County News* Jan 1, 2023

January 23, 2023 2:30 PM to 3:10 PM MT

 College lecture Dissecting a T. rex (Mccalester College St Paul, Minnesota)

January 30, 2023

- College lecture How Did Dinosaurs Get So Big? (Mccalester College St Paul, Minnesota)
- College lecture Were Dinosaurs Warm Blooded? (Mccalester College St Paul, Minnesota)
- Discussed Sawyer's new paper.

February 6. 2023

- College lecture: The Eaters and the Eaten in the Age of Dinosaurs (Mccalester College St Paul, Minnesota)
- Reviewed Sawyer's project

February 13, 2023

- Discussion on dinosaur pathology
- Reviewed Sawyer's project

Above, next column: Sawyer's curriculum under the mentorship of CSMS member and geologist Steven Wade Veatch.

February 20, 2023

 College lecture What Did T. rex Taste Like? (Mccalester College St Paul, Minnesota)

February 27, 2023

No meeting, Sawyer on a field trip (Glen Rose Formation)

March 6, 2023

- College lecture The Tough Lives of Allosaurus and T. rex. (Mccalester College St Paul, Minnesota)
- General discussion of fossils and Sawyer's fieldtrip to the Glen Rose Formation.

March 20, 2023

- College lecture Dinosaur Eggs and Babies. (Mccalester College St Paul, Minnesota)
- College lecture How Dinosaurs Conquered the Cold (Mccalester College St Paul, Minnesota)
- Sent amber specimens for Sawyer to study. Cretaceous age.

March 27, 2023

- Discussion of making a science resume for Sawyer
- Discussion of a new research project
- Fieldtrip planning for June
- Sent field guide to Shelf Road
- Discussion of Sawyer presenting a paper to practice public speaking.
- Viewed BLM videos of Garden Park

April 3, 2023

- College lecture The Extinction that Ended the Dinosaurs. (Mccalester College St Paul, Minnesota)
- Discussion of scientific illustration

April 10, 2023

No Class

April 17, 2023

- College lecture Dinosaur Resurrection. (Mccalester College St Paul, Minnesota)
- College lecture Introduction to Paleontology: History on a Geologic Scale (University of British Columbia)
- Sent two certificates of training: Introduction to Earth Science and Rediscovering the Age of Dinosaurs
- Discussion of scientific illustration continued.

April 24, 2023

- College lecture: Introduction to Paleontology: Life Cast in Ancient Stone (University of British Columbia)
- Discussion of Sawyer doing an oral presentation with me at the Pillar Institute of Lifelong Learning in Colorado Springs.

May 1, 2023

- College lecture: Introduction to Paleontology: Life Cast in Ancient Stone (University of British Columbia)
- College lecture: Introduction to Paleontology: Tools of the Paleontological Trade (University of British Columbia)

All this culminated in the completion of two 20-hour (each) courses: "Introduction to Earth Science" and a college level course, "Rediscovering the Age of Dinosaurs."





Sawyer has written two papers for publication. One was titled, *Theiophytalia kerri: A Garden of the Gods Dinosaur* about a dinosaur skull found at Garden of the Gods and the other was titled, *Concavenator and the Las Hoyas Lagerstätte*, about fossilized *Concavenator* remains found at the Las Hoyas fossil site in Spain.

Both articles have been published in a newspaper called *Ute Country News,* which circulates in Teller, Park, Fremont, and El Paso Counties, as well as in our very own great CSMS *Pick & Pack* newsletter (#1 in the region 2 years running!). One of the articles was also published by the Western Interior Paleontological Society.

Theiophytalia kerri: A Garden of the Gods Dinosaur

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 ornithopod 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.

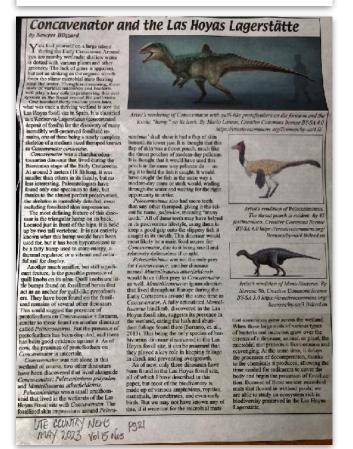
In 1878, Professor James H. Kerr (figure 1) from Colorado College found a skull (figure 2) in, what was originally thought to be, the late Jurssic Morrison formation (Walker and Johnson, nd). It caught the attention of an acquaintance of Kerr, paleontologist O.C. Marsh. Marsh identified the skull as that of a Camptosaurus, a dinosaur commonly found in the Jurssic 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 lext, nd.).



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

November 2022

SMS Pick & Pack



Above: Snippets of Sawyer's papers published in the *Pick & Pack* and in the *Ute Country News*. *Photo by Steven W. Veatch.*

CSMS members voted Sawyer "Junior Rockhound of the Year" for 2022, citing, "...earnest and spirited efforts in applying himself to a rigorous course of study with geologist and club member Steven Wade Veatch. 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 titled, "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."

JR ROCKHOUND

OF THE YEAR

The Colorado Springs Mineralogical Society proudly confers upon

~ Sawyer Blizzard ~

the Junior Rockhound of the Year Award, for the year 2022, in recognition of earnest and spirited efforts applying himself to a rigorous course of study with geologist and club member Steven Wade Veatch. 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, "Thetophytalia 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.

CSMS SECRETARY



CSMS PRESIDENT



Above: Sawyer supporting National Fossil Day with the CSMS Pebble Pups at Garden of the Gods, 15 Oct 22. *Photo by David St. John.*

This month, Sawyer will spend a day in the field with Steven, learning paleontological field methods and other techniques. Happy hunting!

Congratulations to Steven and Sawyer for so much hard work accomplished while simultaneously in service to the community. Rock on!



About Steven: 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. His complete profile is available at:

https://www.blogger.com/profile/

Crystal City

Lily Strange strange.lily@gmail.com

Editor's note: this article is re-printed with permission from the author, Lily Strange. The additional editor's note that follows accompanied the original publication in **Mineral News**, Vol. 39, No. 4, April 2023.

(A short time ago, a new collector walked into Excalibur, asking questions about collecting, specimens, values etc. Sensing some great enthusiasm, I answered as best I could and offered some encouragement. Several visits later, I asked if she would write an article about her new-found obsession, and her delightful story of her exploits in the woods of Rappahannock County, Virginia follows. — Editor)

This past winter I had become almost foreign to myself. I was hiding things from my husband, I was neglecting my household duties and physical appearance. Things I used to be so mindful of didn't seem to matter. I felt like I was almost living a double life, and at the same time, I could't remember being that alive in a very long time.

I asked for this though, I wanted this, I needed this. Two months of being sick had taken a toll on my mental health, and although I was feeling better physically, I still felt stuck. I was looking for a sign, a distraction... I was looking for something to unstick me.

I started with the woods; well actually, I started with several non-winning lottery tickets and then the woods. I wasn't necessarily expecting anything tangible from the woods, just generally some clarity and direction, maybe a revelation if I was lucky.

I'm not sure how long I was there that day, but I quickly got lost in introspection and interpretation, trying to read every bird call or fallen tree as a meaningful message. I didn't notice the time, and the sun was setting. Far from home, I took a shortcut, a fateful shortcut. Within a minute of taking this shortcut, there it was, my sign in the form of what looked like quartz crystals, like a vein of quartz crystals in a much larger rock (see figure 1 next column). They looked like teeth, beautiful and sparkly teeth. I felt euphoric, giddy and I didn't even really know what I was looking at. I could feel it though, I was back. I had won the lottery.

On my way home, I formulated a plan: I'd dig deeper and around the rock to, of course, uncover incredibly valuable crystals; I'd haul them home, clean them up, find a reputable dealer, and start my crystal empire. I had big hopes for what I coined 'Crystal City,' despite not knowing very much at all about geology or the value of rocks/minerals. In my head my naïveté didn't matter;



Figure 1 — The giant rock and it's quartz seam that started it all. Author's image.

I was blinded by excitement. A part of me wanted to tell everyone I knew, but I decided that I'd figure out what I was really doing before going too public; and in a way, I liked the idea that I had this thing, this rock, that was all mine to explore, like I had a secret.

The following day, excavation began. I wasn't expecting to spend so much time there. maybe an hour or two for a week, but within minutes of excavating, plans changed. And for one month, I went there most days and for most daylight hours. When I wasn't digging, moving crystals, or cleaning them, I was day-dreaming of their potential. I fell in love with them all; each one was unique, special for its own specific qualities, and some I even named. While I was there, I was so focused and present. I would be in Crystal City for hours, only noticing the time passing with the shifting sunlight, not sensing my numbing fingers and the holes in my gloves, not seeing the dirt caked under my nails and the nubs that my fingernails had become. Hours would go by without a thought of food. I was in my own world there. I'd leave around dusk, giving enough time to get myself and the household orderly so my husband didn't suspect I was digging a hole for most of the day.

By the end of the month, I had dug a coffinlike sized hole, easily three feet deep at the deepest part, probably two to three feet wide and at least seven feet long. I learned a lot by trial and error. I learned that crystals can form in all different directions and I had to be careful removing them, trying not to potentially break another formation around or near the cluster I was working on. I learned to not use metal tools in some circumstances as they would easily break the clusters. I became one with the forest around me, a real opportunist and nothing was off limits..sun bleached cow bones were scattered just feet from the site. Was it a sign, a sacrifice to the crystal gods? Rib bones and vertebrae were useful digging tools and the scapula made a nice trowel-like tool. Sticks, preferably short cedar sticks, were also handy. Mostly though, I dug by hand. I wore through numerous gloves usually not noticing I was down to my fingers until the red dirt was fully caked under my ragged nails. I think a more seasoned rock hunter would have had a more clearer plan going into it, maybe trying to realize the edge of the rock before digging, probably also owning better gloves... I suppose there are many things someone with more experience would have done differently, but I appreciated in a way that I was learning through my own errors, almost like the crystals were teaching me.



My coffin-sized trench in the woods, watched over by a bleached cow skull



An early find from the pit

In the end, it was my body before my mind or logic that told me I needed to take a break, and with my arthritic-like hands and a constant dull pain in my right elbow, I reluctantly hiked my tools out of the woods. If it weren't for the physical pain, I

wonder how much longer I would have gone on. There was only a small feeling of guilt for the neglect of my 'adult' responsibilities, and I guess there was also the problem of space. They had taken over, they were almost everywhere in my house and outside: on my desk, bookcases, inside benches, houseplants... I even put some in the crawlspace. In an especially bold moment I asked my husband if he would consolidate his prized bourbon collection so I could have another shelf for my crystals in the liquor closet. He reluctantly obliged; I felt the marital tension for days, but it was totally worth it.



Bourbon over rocks...

Before this, I never really collected anything, that's what I'm calling it-collecting. But honestly, who puts their collections in their crawlspace? This 'collecting' was teetering on the edge of hoarding. The problem, too, was that I couldn't imagine getting rid of one: they each meant something to me. It reminded me of this show about hoarding, and a particular episode that comes to mind involved a man who hoarded rats. He had easily two hundred of them, and they had taken over his house, forcing him to sleep in the garage. He'd come inside his home and throw a heaping bucket full of dog food in the middle of the once dining room floor, and the rats would come out of every nook and cranny and go nuts. The man just sat back and looked at what he created with pure

adoration. With his house almost condemned, and it certainly presented a fire hazard with the wires eaten out and walls filled with rats' nests, an intervention (or eviction) was inevitable. Long story short, the interventionist said, "You have to choose just ONE rat." Of course the man immediately got irate and began crying. I get it now, I can relate. If crystals were rats, I'd be him; I'd be going down in flames, crystals in hands.



Choosing just one is not an option!

In retrospect, it may have made sense to get an idea of the value of the crystals before committing so much time and energy, but like any real addiction, reasoning was out of the question. Eventually, I decided to put myself and my crystals out there and take them to a professional, a real geologist. I brought three of my best specimens to Excalibur Minerals in Charlottesville, Virginia. Walking into the shop was like walking into a museum; I tried to play it cool.



One of my favorites from the woods of Rappahannock

I told my story, unwrapped the takeout containers containing my crystals, and handed them to Tony, the mineral guy who owns the place. Tony was an encyclopedia of knowledge, explaining how the crystals formed and approximately how long ago they may have formed. He could answer any of my crystal-related questions with ease, and I was in

awe. I almost didn't ask him how much they would be worth, looking around at the knee-high amethyst geodes...my crystals were small fish in a big pond, or maybe they were more like the algae.

I did though, I asked, and as it turns out, they're actually not worth that much, some probably nothing, I certainly won't be retiring anytime soon. In maybe an attempt to soften the blow, Tony said that they were relatively rare because of where they were found, but in some mines, as he held up my second best crystal, "They'd probably just throw this right back." Choke.

I was actually expecting to feel more discouraged by this news, but I really wasn't. Tony had a way of encouraging me, almost dismissing the fact that their value was relatively insignificant. I think he could sense my passion and excitement, and I think he didn't want to squander that. But, I also sincerely think he understood. I didn't feel judged or dismissed; if anything, I felt validated like this kind of enthusiasm was par for the course in rock and mineral collecting. And after almost an hour of very patiently answering all of my geological related questions and getting a tour of the "museum," Tony's parting words were, "keep digging!"

It's now been several weeks since I've been back to Crystal City, but I find myself frequently drifting off there in my head. As I get back into a more traditional routine, I can't help but think that finding that rock was one of the best things that has happened to me. Breaking from the norm, not necessarily making sense and doing something I was so wholesomely attracted to, felt right. It didn't necessarily bring me notoriety or fortune, but it made me feel like a child, a forty year old child; and once I found that child-like excitement, I got what I wanted, I got something back. To me, the crystals are invaluable, an unembarrassed passion, I needed something to un-stick me and it worked...I dug myself out of a hole.



Another treasure from my "Crystal City" in the woods



American Federation of Mineralogical Societies (AFMS) Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my Club or Federation Officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

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.

Pebble Pups David St. John

CSMS Pebble Pups and Earth Science Scholars



Fossilfun14@gmail.com

Pebble Pups and Earth Scholars

Our May 2 meeting was about crystals from 4:15 PM - 5:15 PM at the East Library. We learned about crystal habits, minerals, and our local favorites. Below are a few pictures of learning centers. The next Pups Meetings are June 6, 4:15 PM - 5:15 PM at the East Library F1 and July 11, East Library same time. Check out the enhanced Pikes Peak Pebble Pups and Earth Scholars Facebook page, local event posts, great information, and fun posts. Challenge: get out and rock hound, enjoy the great state of Colorado, visit places you never have been, share your adventures, and good hunting. David









Rock Show Booth volunteers

Calling All Pebble Pups and Earth Science Scholars! Please Volunteer for our booth 9,10,11 June, 2023. Email fossilfun14@gmail.com. Also, we need donations for our booth, rock, mineral, and fossil samples for the show, and future outreach events. Lunch brown bags, specimen boxes, 1, 2, 3, 4-inch flats in good condition.



Left: My dad "Rocky" St. John, Geologist and myself as a Pebble Pup Gold panning in the 1970's. We joined the CSMS in 1979. We met so many amazing rock hounds and enjoyed everything the club had to offer. *Pick and Pack*, general meetings, June show, field trips, pups, and so much more. We dreamed of someday teaching the pups together. He is no longer with us but his love of learning, sharing samples and knowledge runs through me every time I work with junior rock hounds in our club and in the community. Our club means so much more than just collecting treasures. The relationships that we build with complete strangers or family is the real treasure.



Above and below: Brian Busse



REPORTGeneral Assembly 18 May 23



Hearty rockhounds gathered on a clear Thursday night at Mt Carmel Veteran Center for general assembly. We heard a great talk from Brian Busse about rockhounding in Colorado and his claim on Mt Antero. Thanks Brian! New members were welcomed and got to pick out a gift mineral to take home as a memento. Society business was conducted as usual.







A hearty rockhound displaying some samples of lapidary work she did with CSMS (the necklace too)







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.

Classifieds and Announcements

CSMS Summer Field Trip Schedule

Might be subject to change or cancellation due to unforeseen circumstances

June 17th: April Fool's claim 24th: Hartsel Barite

July 1st: RMH with Lake George club, limit 10-15

14th: Dorris topaz claim

15th: Wigwam Claims - Lake George club - limit of 25 22nd: Timberline Flourite Mine with John McGrath

22-23: Crystal Park, Montana

29: April Fool's claim

August 5th: New Hope Amethyst Claim - Limit TBA

19th: Smoky Hawk 26th: April Fool's claim

September 2nd: Mt Antero w/ Brian Busse - Limit TBA

9th: Cañon City joining us at our claims

15-17th: Topaz Mountain in Utah

October 7th: Cañon City joining us at our claims

14th: Rocky Mtn High claims

21st: April fools claim 28th: Rocky Mtn High claim

Questions: Kyle Atkinson atkinson.kyl@gmail.com

Pick & Pack Reprint

Editor's Notes



The reprint of the *Pick & Pack* newsletter on pages 22-23 is a series of digital images taken with an iPhone 12. The images have been cropped using Mac Pages. The original newsletter was found wholly intact with a staple in the upper left hand corner (removed for the photos). Each row of the images represents the front and back sides of a single page. They can be read in order from left to right then top to bottom. Note the page numbers are not correct in the original. Page 3 appeared before

page 2, then the page numbering was discontinued after that. Note the typing near the top of the front page overlaps with the header. Since this newsletter was found wholly intact, I decided to capture it while I had the chance and we have room in newsletter. The paper is very brown presumably from oxidation. The original was found in a notebook titled, "Rock Bits and Pieces" with the name Mary J. Brockly handwritten on the front. The notebook and the newsletter will be returned to the society librarians. Additional digital reproductions can be accomplished upon request. —Ed.

The May neeting of the Colorado Springs Eineralogical Society will be held at the IESN Hall, 414 West Pikes Peak Avenue, on Friday, Ray 9, at 8 F.M.

May's program will be given by Jack Thompson. Jack has been working on this program for some time and has entitled it "Photography for Hobbies related to the Earth Sciences." It is a elike program covering photography in all phases of our hobby--cabs, minerals, jewelry, mountains, fault platures, minormounts and so on. It should be most interesting and educational.

M Burke of Martsel will have a case of Azurite on display alons with another case belonging to the Clyde Morgans. The Borgan's case will be made up of clocks, ash trays and other items featuring the use of clineral materials.

GEN OF THE MONTH -- SMIRRALD.

May's som is emerald, the grass green variety of beryl--a silicate of two light metals, beryllium and aluminum. The securald opystolizes in the homeomal system in a sin-siled prist. The color is derived from traces of chronium. It is faintly dishroic--that is, showing a deeper color in one direction than another.

The emerald has been valued since 2000 B.C. and was mined intensively in Egypt during the times of Alexander the Great, Cleopatra and the Bonan Empire. Emerald along with ruby and sapphire shares the rank of "precious atone" in the popular swimming. Fine emerals, because of their rarity can be most costly than diamonds.

The enerald (7.5 hardness) is harder than quartz, but softer than topez. Its value occes mainly from the color, transparency and freedom from flaws. Some emerald occurs in grantless and pegmatites; however, the really fine gome come from viens associated with calcite, quartz, colomite and pyrite. The emeralds from Muzo in Colomita occur in viens cutting through dark-colored carbonacoous linestone and shale. The best gems today come from this area.

Polkiore relates that the emerald has been used to enhance ones eyesight, to ours dysentery, to assist with childbirth, to protect one from epilepsy, to drive evil spirits away, to preserve shareity and as a symbol of immortality. It is a beautiful and valuable gen.

PICK AND PACK

PROM THE PRESIDENT:

MAY 1969

With the publication of this issue of the PICK AND PACK, it brings to a close an era of many memories, trials and efforts of many people over the pact years. It has been a source of great pleasure, squeational value and price, true? reflecting the high cullbur of people that have mode its publication possible. We these people who have sourchished their efforts, a special thanks should be extended by all of the membership.

In the life span of everything, there are upo and downs, pit-fells and, of course, pinacles of success. In looking back, and recognition some of these, one cannot help but give special recognition to lucilla Corne, bouchly Hayer, Shirley Darbayn, the Chaussens, and Character Wolfe, These persons, perhaps have had more than their share of burdens for the PICK AND PACK.

Looking forward, as all ongoing organizations must, we venture forth into a new era for the FICK AND FACK with the un-coming Jane lands. We have, not only, a new method of printing the paper, but a new group of volunteers to publish and sult the builtin. I wish to thank the volunteers who have expressed a desire and en enthusiasm to make our paper as even stronger arm of the Clut. Those poople, I am sure, will produce the type of paper that all the membership will be proud to say belongs to the Colorado Springs Clut.

All avenues of communication must be kept open in the Club. If any person has an article for the paper, please let us have it. All atticles are welcoms!

Watch for the new issue: if you feel some parts of the paper can be improved, please some forward and express your views to the people who are concerned -- not to people who have no part in the paper. This way we can set the foundation to publish an outstanding club bulletin.

A number of you have been contacted regarding cabachens for the Seciety's lapidary case for the Grand Junction show. Don't forget to bring your case to the May meeting (Fleass man't your stones with name and material.) If you have not been contacted and wish to participate in this project, please feel free to bring any case you have. Give them to Jewell Paway or Shirley Brabson. Let's make a good showing at Grand Junction.

MEMBERSHIP:

Attached with this PICK AND FACK is the current membership rostor. If you see any errors, please report them to the Sec. Welcome to now members, Charlene Dalton, William Wood, Mr. and Mrs. Louis Tull and Sgt. and Mrs. John Ellington and family. Their addresses and phone numbers are in the new rogter.

PICK AND PACK

MAY 1969

1969 EXECUTIVE BOARD

President Vice-President Secretary Treasurer heaber at large Hember at large Fast President

George Fisher
Bob Wirg
Shirley Brabson
Jossa Mack
Jewell Pavey
Jim Brown
Clarence Wolfe

EXECUTIVE MEETING

As stated in the constitution and by laws of the Society, the meetings of the executive beard are open to the semeral membership. The routine because of the Society is conducted at this meeting, restally the fourth Bonkey of each month. The mext meeting will be at Jewell Payer's house, 2509 E. Boulder, on Kay 26, 1969 at 8 P.K.

Numbers are welcome to speak during the meeting, but they cannot vote. Please let the secretary know if you intend to come to a meeting, so the number of persons can be accommodated.

TREASURER'S REPORT

General Fund Balance, March 24, 1969 341.07 General Pund Balance, April 28, 1969 328.32 Show Fund Balance, March 15, 1969 Disbursements, (printing machine) Show Fund Balance, April 28, 1969 1181.73 650.00 531.73 Savings and Building Fund, April 28, 1969 1181.79

Max Pilimore reports that he has completed the tabulation of suggestions for a state rock, minoral and gaustone. The following are the results (for CSHS only):

STATE NINERAL STATE GENETONS

Pikes Feak Granite Marble Quartz

Amazonite Aquamerine Silver Topez Molybdenite Turquoise Aquamarino

hax also states that we still have time to got entries into the Grand Junction show. See the secretary for entry blanks.

SCHEDULE OF FIELD TRIPS - 1969

(Keep these instructions - no other reminders will be sent to you!)

Sunday, May 11 - FORT CARSON or CSMS TARRYALL TOPAZ CLAIM

At the time of printing Di we still have no written permission
to enter Fort Carson. If permission is received by the 11th, we shall
go there; if not, we shall go to the society'n claim north of Lake
George. go ther George.

Meeting Place: lEEW Hall (we shall go as a group to whichever locality is available)

Macting Time: 9 A.M.

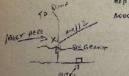
Trip Leader: Ken Classen

Equipment: Hummer, chisel digging tools, lunch, cold drinks. Both possible collecting areas are a good hike from the parking area, no wear confortable shows!

NOTE: On another page of this issue of Pab is a map to our Tarryall claim. If anyone goes up there on his own, at any time during the year, he should be sure to record with the Club secretary the abount of time spent, and the anabor of popule who accompany him. This report is necessary for accounting for our should assessment work.

Memorial Eny Neekond - HEL MORTE, COLO. - for Plune Agate
(This twip to planned for Friday and Saturday, May 30 and 31.
No definite parts have been sade for Sunday. You are free to
stay in the area collecting, or if enough interest is indicated
at the time, we may make a side trip to Biedell, which is on
the way home.)

Meeting Time: 10 AM on both Friday and Saturday Meeting Place: Intersection of Bwy 112 and local road going north to city dump (see detail on map to the left).

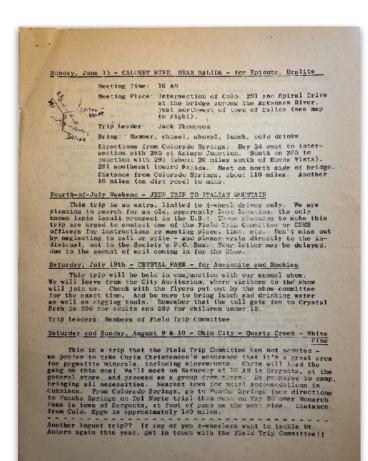


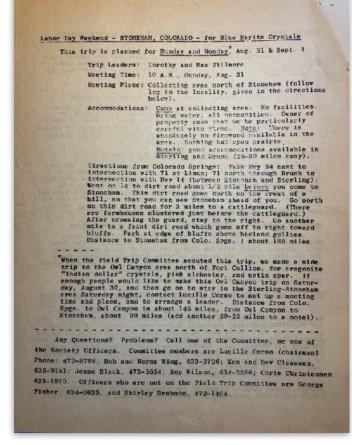
Accommodations: Camping in collecting area
No facilities. Ering water and all
necessities. Notels in town of hel
Norte. We recommend the hel Norte
Notel, operated by Mrs. Amenta David
Mrs. David come one of the claims on
which we have permission to collect.
Ye believe you will find her motel accommodations ectively satisfactory.

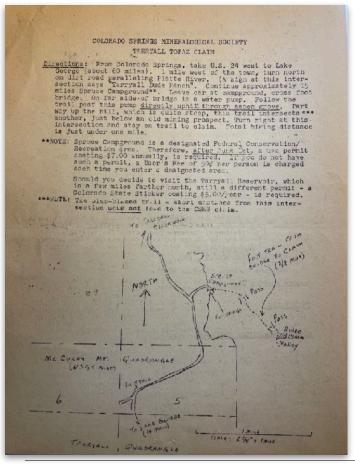
Trip Leaders: Members of Field Trip Committee

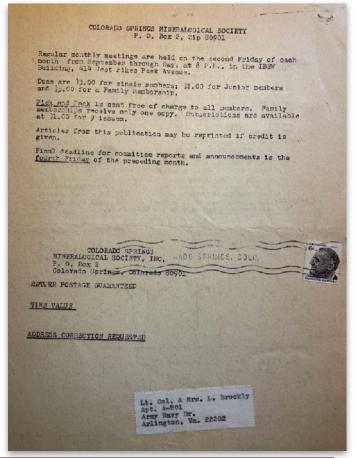
frip leasers: wenders of free free committee firections from Colorado Springs: Hey 24 west to intersection with 285 at Antero Junction. South on 285 to Poncha Springs; or May 115 south to intersection with May 50, 50 west to Poncha Springs. South on 335 from Poncha Springs, thru Saguache to intersection with May 112, West on 112 to north side of bridge crossing Rio Grance on the north edge of Tel Norte. Tistance from Colo. Spgs: 200 mi.

June 2023 CSMS Pick & Pack 22





















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) <u>www.amfed.org</u>
- · Rocky Mountain Federation of Mineralogical Societies (RMFMS) www.rmfms.org