



THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

Colorado Springs Mineralogical Society

Founded 1936
 ~ Lazard Cahn ~
 Honorary President
 "Pick & Pack"
 Volume 64 No. 3
 Apr 2024

CSMS General Assembly

Thursday, April 18, 2024 7:00 PM
 Colorado Springs Christian School
 4855 Mallow Road

Mike Nelson
csrockguy@yahoo.com

Tales from Yooperland: Minerals of the Keweenaw

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

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Mike Nelson - Tales from Yooperland: Minerals of the Keweenaw

The Keweenaw Peninsula (pronounced key-wah-nah) is the northernmost part of Michigan's Upper Peninsula (U.P.). The upper peninsula is also known as Yooperland (wikipedia). The region has a rich history in mining and minerals unique to the area. Come hear Mike Nelson's tales of rockhounding adventures in Yooperland.



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.rmfmts.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 and minerals.

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

CSMS Group Calendar

| Apr '24 | May '24 | | | | | | |
|---------|---------|----------------|----------|---------|---------------------|--------------------------------------|------------------------------|
| 10 Apr | 8 May | Fossil Group | 2nd Wed | 6:00 PM | East Library Annex | Kristine Harris Richard Villareal | 719-593-1524 831-760-6985 |
| 4 Apr | 2 May | Board Meeting | 1st Thur | 6:00 PM | Zoom | Alex Field | 719-351-4897 |
| 2 Apr | 7 May | Pebble Pups | 1st Tue | 4:15 PM | East Library | David St. John | 719-424-9852 |
| 18 Apr | 16 May | General Assy | 3rd Thur | 7:00 PM | Co Sp Christian Sch | Alex Field | 719-351-4897 |
| 25 Apr | 23 May | Crystal Group | 4th Thur | 7:00 PM | Co Sp Christian Sch | Kevin Witte | 719-638-7919 |
| By appt | By appt | Faceting Group | By appt | By appt | | John Massie | 719-338-4276 |
| By appt | By appt | Lapidary Group | By appt | By appt | Sharon's House | Sharon Holte | 719-217-5683 |

Community Events (Pete Modreski)

May 4: 12:00-3:00 PM, Colorado Mineral Society Silent Auction, held at Wheat Ridge United Methodist Church, Exhibition Hall, 7530 W. 38th Ave. (just east of Wadsworth). All are welcome to attend, and to bring specimens to sell in the auction (minimum donation of 20% of selling price to the club). Setup begins at 11 AM; there will be a vocal auction as well as silent auction tables.

May 18: 12:00-3:00 PM, Colorado Chapter, Friends of Mineralogy Silent Auction, held at Wheat Ridge United Methodist Church, Exhibition Hall, 7530 W. 38th Ave. (just east of Wadsworth). All are welcome to attend, and to bring specimens to sell in the auction (minimum donation of 20% of selling price to the club). Setup begins at 11 AM; there will be a vocal auction as well as silent auction tables.

June 7-9: Pikes Peak Gem and Mineral Show, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs, sponsored by the Colorado Springs Mineralogical Society. Fri 10 AM-6 PM, Sat 10-5, Sun. 10-4.

June 13-16: A Mineralogical Symposium, sponsored by the Colorado Chapter, Friends of Mineralogy: "Mineral Oddities: Pseudomorphs, Twinning, Inclusions, and more." As has been previously announced, the Friends of Mineralogy Colorado Chapter will be hosting a symposium in 2024. The 2024 Symposium webpage is now live, with dates and preliminary details: <https://friendsofmineralogycolorado.org/symposium/>. The symposium will include field trips on June 13, a mineral photography workshop on June 14 conducted by Jeff Scovil plus an evening reception at the Colorado School of Mines Museum, and lecture sessions on June 15 + half day June 16. The lecture sessions will take place in Berthoud Hall, CSM campus. All interested persons will be welcome to register to attend. For more information about the symposium as it becomes available please see the FMCC website.

July 25-28: Fairplay Gem, Mineral, and Jewelry Show; Platte Drive, ½ mile west of US-285, Fairplay, CO; free admission and parking.

Aug 8-11: Buena Vista Contin-Tail Gem, Mineral, and Fossil Show, Buena Vista Rodeo Grounds; free admission and parking.

Aug 15-18: Woodland Park Gem & Mineral Show; located outdoors off US-24; free admission and parking.

Aug. 16-18: Lake George Gem & Mineral Show; located outdoors off US-24; free admission and parking. Sponsored by the Lake George Gem & Mineral Club.





Federation News Post

American Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies



AFMS Endowment Fund

Richard Jaeger, RMFMS Chair

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

This is a raffle drawing with tickets being sold at \$5 each or five tickets for \$20. The drawing will be held at the CFMS/AFMS Convention in Ventura, California in May of 2024. People from around the American Federation donate prizes for the raffle - they 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 three winners from the Rocky Mountain Federation. You do not have to be present to win.

This is a major way to financially support the American Federation's efforts on behalf of our hobby. Currently the funds go toward the Junior Rockhound Program, Judges Training, and preparing Programs for distribution to Regional Federations. Over \$5,000 was raised last year. Cheryl requests that the checks be sent to the regional chairs so that we may issue tickets and have a record of who has entered. Checks should be made payable to the "AFMS Endowment Fund." Then I 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 CFMS/AFMS Show in Ventura in May to be put into the RMFMS bag. You may also purchase Endowment Fund Tickets in Ventura if you haven't done so before then. Normally we also sell the raffle tickets at our RMFMS Show, but this year our show is in October (after the drawings).

I hope that many of you will participate and hopefully be winners in Ventura; remember, 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 the more money raised. Cheryl's address is: 42 Jefferson Ave., Patchogue, NY 11772. My wife Linda and I are donating a piece of jewelry and a pair of Lapis/ Onyx cups for the two of the Endowment Fund prizes. Hopefully some of you will donate prizes too. My contact information is provided below. Please share this information with your club members and thanks for your consideration.

Please purchase some tickets; many of you have in past years - and hopefully get your ticket drawn in Ventura in May. These donations are really important for our Juniors Programs.

Richard D. Jaeger
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Tulsa, OK 74137-2602
918.481.0249
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Original appearance in Rocky Mountain Federation News, Vol 55, Issue 3, editor Linda Jaeger. Reprinted with permission.

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.

Secretary's Spot

John McGrath

2024 CSMS Officers

Alex Field, President
Shane Riddle, Vice-President
John McGrath, Secretary
Ann Proctor, Treasurer
Adelaide Bahr, Membership Secretary
John Emery, Editor
Chris Burris, Member-at-Large
William Meyers, Member-at-Large
John Massie, Past President

2024 CSMS Chairpersons

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

CSMS General Assembly Minutes

7 PM, Thursday 21 March, Colorado Springs Christian School

Address: 4855 Mallow Rd, Colorado Springs CO 80907

Board Attendance: President: Alex Field, Vice President: Shane Riddle, Past President: John Massie, Secretary: John McGrath, Member-at-large: Chris Burris, Editor: John Emery, Membership Secretary: Adelaide Bahr.

Agenda:

- I. Meeting was called to order by our President Alex Field at 7:07 PM
- II. The Pledge of Allegiance was led by our President
- III. Introduction of Guests: None
- IV. Introduction of New Members: 6 new members present
- V. Program Speaker - Pete Modreski, PhD from Kansas State, former USGS employee, retired during COVID spoke on How to Identify Minerals
- VI. Meeting - There were 48 members/guests in attendance and 8 minerals were given out.
- VII. Recognition - Former VP Rick Jackson was recognized by the immediate Past Pres John Massie and President Alex Field for 2 years of dedicated Service.
- VII. Officer Reports
 - A. President - Alex Field updated the group on the progress of the new Club website which would handle applications, renewals and field trip sign-ups.
 - B. Vice President - Shane Riddle, VP, Present, No Report
 - C. Treasurer - Ann Proctor- Absent
 - D. Secretary - John McGrath - Present, No Report
 - E. Membership Secretary - Adelaide Bahr, asked for renewals before April deadline.
 - F. Editor - John Emery. Present, No Report
 - G. Members at Large
 1. Bill Myers - Absent
 2. Chris Burris - Present.
 - H. Past President - John Massie, Present, discussed the restarting of scholarships for Geology students
 - I. Website and Show Coordinator - Lisa Cooper, present
 1. Stated that she was working on updating the Website
 2. Distributed cards for the Gem and Mineral Show.
 3. Spoke about SOCO Gem & Min Show 3-5 May. We'll use it to advertise our Show, Club and sell discounted admission tickets. She needs volunteers to staff our booth. (The Show has since been postponed)
 - J. Frank Rosenberg spoke about the Silent Auction at the Gem & Mineral Show. The Funds are you used for scholarships and to supply the Pebble Pups. Last years Auction generate approximately \$4000.
- IX. Satellite Groups
 - A. Crystal Group - Kevin Witte present. He reported that the next meeting would occur on Thursday night at CSCS at 7pm and the topic would be Quartz.
 - B. Faceting Group - John Massie reiterated that you only need to contact him to bring the machine to your house. He also stated that he has a donated display case looking for a good home.
 - C. Pebble Group -David St John, Present.
 1. Pups will continue to meet at East Library at 4:15 pm which parents have told him is the best time period.
 2. He thanked everyone for their specimen donations.
 3. Last meeting 6 kids attended.
 - D. Fossil Group -Kristine Harris and Richard Villareal stated that 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, Present
 1. She is looking for old CSMS club records
 2. Call Sunday nights after 6:30 pm to schedule an appointment. She has limited availability until mid March.
- X. Liaisons
 - A. Claims - Frank Rosenberg, Present. Claims are good. Mentioned that he and Ellie are librarians and maintain the library at their home. He recommended that anyone who has questions about reference material should contact them. He said he would place the library catalog on website.
 - B. Field Trip Coordinator - Kyle Atkinson, Present. Working on the new website. Looking for first trip to Rocky Mountain High Claim for the 13th of April. He is working on a Pueblo Baculite Mesa trip.
 - C. Social Coordinator - Tina Cox, Present. Thanked everyone for bringing in food.
 - D. Store Keeper - Ann Proctor. Absent
- XI. Unfinished Business - None discussed.
- XII. New Business - None discussed
- XIII. Meeting adjourned by President Alex Field at 8:47pm

RESPECTFULLY SUBMITTED by **John M McGrath** MD COL (RET) USA

President's Corner

Alex Field
CSMS President



Presidential Matters



Happy April Rockhunters!

This month we hope to begin the field trip season, weather permitting, and of course even if it does snow, summer trips are coming soon.

On that note, I have good news! You can now access our field trip website. Go to www.csms1936.com and click on the field trips tab. From there you can select "Field Trip Sign Up." Thank you to Joey Korzekwa, Lisa Cooper, and Kyle Atkinson for helping to set up this new club resource. And my thanks to those of you who helped test it out.

2024 Satellite Group Chairs

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

Also, there are many other ways you can get involved to make our society even better. We have a couple specific requests this month:

We need additional mineral donations for our upcoming Gem & Mineral Show Silent Auction. This is a big fundraiser for us each year, the proceeds of which go to our scholarship program for geology students (see our website for details).

2024 Liaisons

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

Please contact Frank Rosenberg (fs_rosenberg@hotmail.com) if you'd like to donate minerals for the silent auction.

In addition, we need a few more people to make mineral displays for the Gem and Mineral Show in June. Please sign up with Bob

Landgraf (rmlwp74@aol.com), there's an application in this issue of the Pick & Pack.

Let me know if you have any questions or other needs we need to share with the group. Happy rock hunting everyone!

Regards,
Alex
Alexfield1@gmail.com



Dusty Dreams

by David ST. John

The gold rush in Colorado of 1859
 Has now turned into dusty dreams throughout time
 They came from far and wide
 Most of the gold seekers failed as the treasure did hide
 A few got rich and became a legend
 The names of the miners not even mentioned
 The mining towns are ravaged each year
 Harsh winters and weathering erase the past frontier
 There is still gold waiting to be found
 And most likely will be discovered by rock hounds

Vivianite from Sedimentary Rocks and Blue Dead Bodies

Mike Nelson
csrockguy@yahoo.com

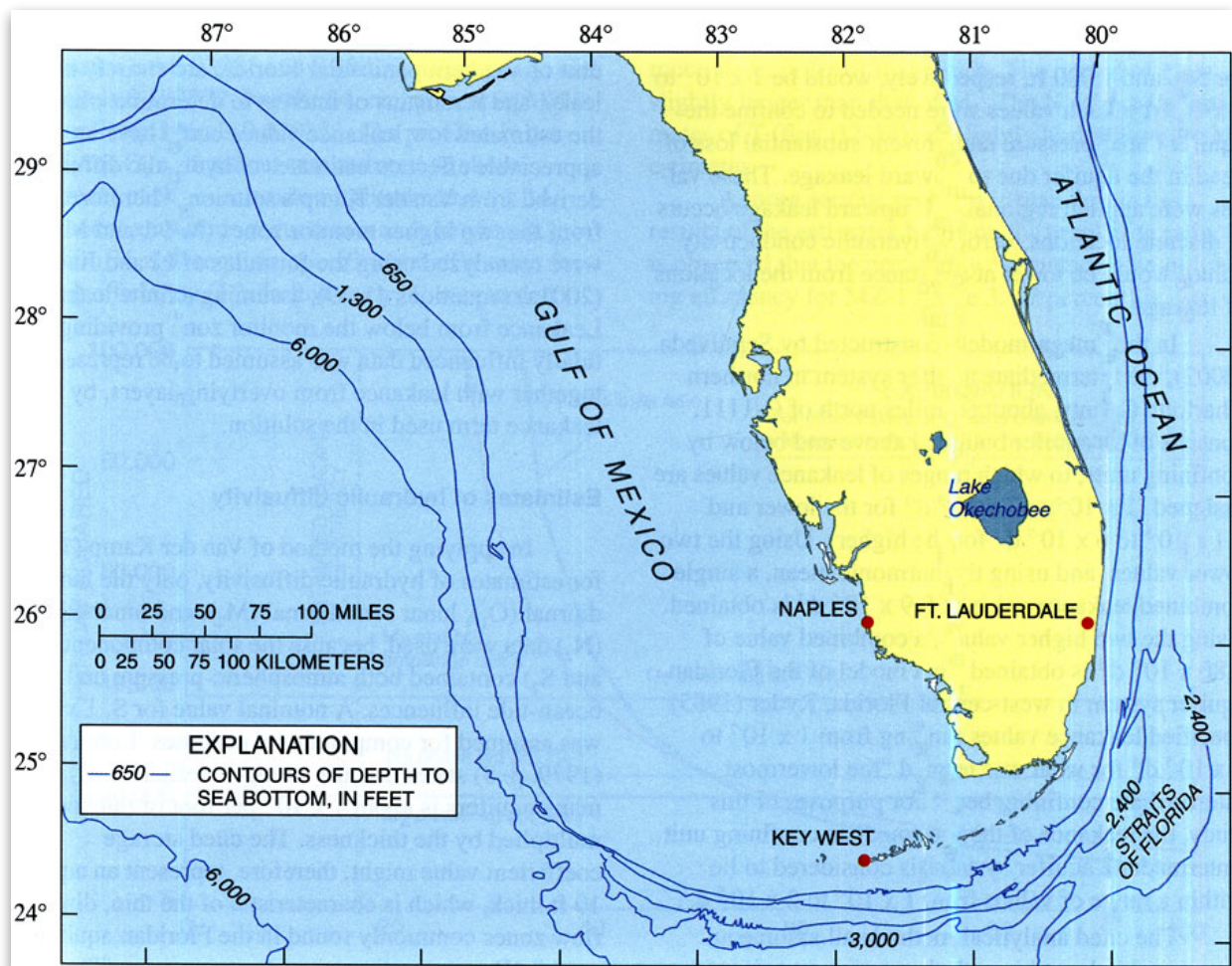
Vivianite is a hydrated iron phosphate mineral $[\text{Fe}^{3+}(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}]$ that is a crystal of many colors, and in fact, can change color over its lifetime. Freshly exposed vivianite is generally colorless but with time oxidizes to green to bluish green to blue crystals. Continued oxidation of the iron from Fe^{2+} (ferrous) to Fe^{3+} (ferric) will produce crystals so dark blue they appear black. Many crystals have a vitreous luster although they can grade into pearly or dull specimens. Colorless crystals are transparent while lighter colored specimens become translucent and massive specimens generally are rather opaque. As with the color, mineral streak ranges from colorless to various shades of blue. Vivianite is quite soft, ~2.0 or less (Mohs). The best “showy” specimens have prismatic (elongated along the C Axis) or flattened/bladed (along the B Axis) crystals and often form in stellate cluster; however, there are a variety of other morphological forms.



Above: Secondary blue vivianite from the Treece or Ibex Mine at Leadville, Colorado. Width FOV ~1.4 cm. *Photo: M. Nelson*

Vivianite is thought to occur as: 1) as a secondary mineral in metallic ore deposits; 2) in pegmatites as an alteration product of primary phosphate minerals; or 3) as a mineral associated with the phosphate found in sedimentary deposits. However, Petrov (2008) noted the mineral is not characteristic of the oxidized zone but of “deep unoxidized levels of ore deposits.” Most vivianite specimens collected in the western states, or observed in rock and mineral shows, are secondary in nature or from the phosphate minerals in pegmatites. Collected specimens, when first exposed to sunlight and oxygen, are often a beautiful blue and prismatic along the C-axis.

Very rarely do Colorado rockhounds come upon vivianite collected from organically rich unconsolidated clays and other sediments/rocks (mostly Cenozoic in ages). In the U.S. most of these sedimentary vivianites come from the Central Florida Phosphate District (AKA Florida Platform) where iron and water, along with original phosphatic material, has allowed vivianite to form: $\text{Fe}_3^{++}(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$. The original phosphorus is thought to have been derived from precipitation in marine waters, and from the skeletons/shells and the waste products of animals living in these waters.

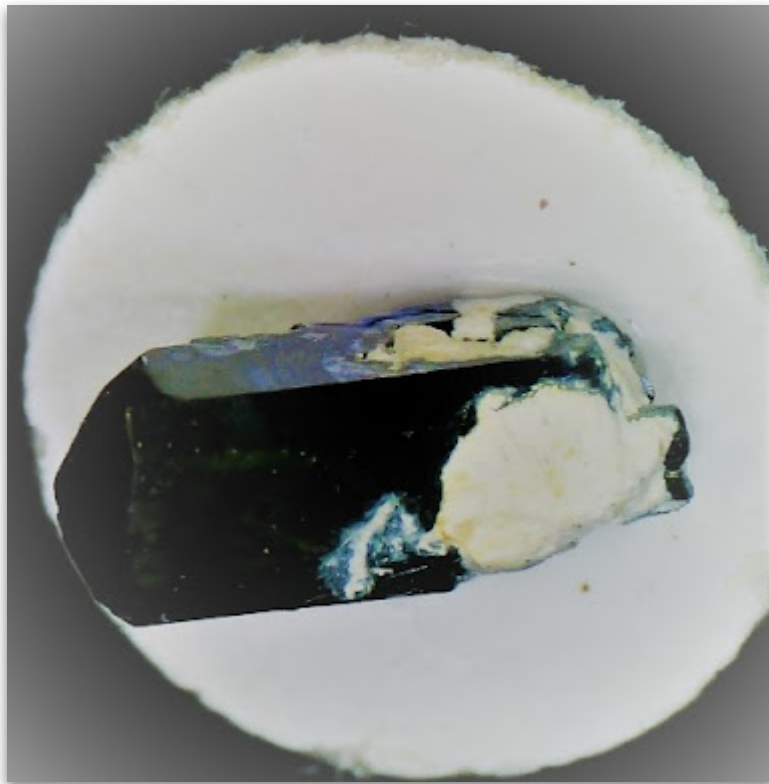


Above: Map showing the emerged peninsular Florida and contour lines showing the extent and slope of the submerged Florida Platform. The edge of the platform is indicated by the 6,000 foot depth contour. Map courtesy of Michael L. Merritt, USGS Water Resources Investigations Report 03-4267: U. S. Geological Survey, 2004, 43.

The basement rocks of the Florida Platform are a fragment of the African Plate that remained attached to the North American Plate when rifting occurred in the Jurassic and range in age from late Precambrian-early Cambrian to mid-Jurassic (Barnett 1975).

A sedimentary sequence rests uncomfortably on top of the basement rocks, and is composed of Middle Jurassic to Holocene evaporite, carbonate, and siliciclastic sediments. This sedimentary sequence is the result of deposition on the relatively stable, passive margin of the North American Plate (Scott, 1989, 2016).

During the Cenozoic concentrations of silt to sand-sized phosphate pellets, mixed with carbonates and clastic sediments, were deposited in shallow water environments over much of the Florida Platform, in a broad range of carbonate and clastic sediments. During the Miocene and Pliocene phosphate was particularly concentrated in several basins in the Central Florida Phosphate District and these were the areas where a major phosphate industry began development in the late 1800s. By 1893, production had expanded to 1.25 million tons and Florida became the world's leading producer of phosphate for the next century. By 2015/2016 the U. S. had dropped to the 3rd largest producer of phosphate behind China and Morocco and production had expanded from the "Eastern Phosphate Fields" of Florida and North Carolina to the "Western Phosphate Fields" of Utah and Idaho. However, in 2021 Florida still produced ~75% of the U.S. production of ~24 million tons. The Eastern Field operations use open pit mining to extract the ore from Miocene and Pliocene sediments/rocks. The Western Fields mine phosphate from limestone in the Permian Phosphoria Formation (Scott, 2016).



Left: A well-formed, terminated crystal of glassy and gemmy, blue-green, vivianite, ~4 mm in length, collected from Clear Spring Mine, Homeland, Central Florida Phosphate Mining District, Polk Co., Florida. Light patch is carbonate matrix. A backlight would show transparency. Mounted by Art Smith 1980.

REFERENCES CITED

Barnett, R. S., 1975, Basement structure of Florida and its tectonic implications: Gulf Coast Association of Geological Societies Transactions, Vol. 25.

Hurst, M. V. (Ed.), 2016, Central Florida Phosphate District Third Edition: Southeastern Geological Society Field Trip Guidebook No. 67.

Scott, T.M., 1989, The Geology of Central and Northern Florida with Emphasis on the Hawthorn Group, *in* Scott, T.M., and Cathcart, J.B., AGU 28th International Geological Congress, Field Trip Guidebook T178.

Scott, T. M., 2016, Geologic overview of Florida *in* Hurst, M. V. (Ed.), Central Florida Phosphate District Third Edition: Southeastern Geological Society Field Trip Guidebook No. 67.

Virtually everything you might want to know about Florida phosphate may be found in the Hurst guidebook referenced above and available as a PDF file: <http://www.segs.org/wp-content/uploads/2010/01/SEGS-Guidebook-67.pdf>

AND NOW FOR THE REALLY INTERESTING STORY FROM CHRIS DRUDGE

October 25, 2016

The Vivid Blue Mineral That Grows on Buried Bodies and Confuses Archaeologists

Atlas Obscura

In 1861, a railway engineer by the name of John White passed away, was buried in a cast iron coffin, and began a slow transformation from White to blue.

The explanation for this spooky color change, which has occurred on numerous occasions all over the world, lies in the composition of the human body. Among the molecules contained within us is phosphate, a central phosphorus atom bound on four sides to atoms of oxygen. Phosphate is present in the hard bits of bones and teeth (as part of the mineral hydroxylapatite), helps hold together strands of DNA and RNA, and is used by cells to store and move energy around as well as to organize their many protein-driven activities.

If a dead person ends up buried somewhere waterlogged, lacking in oxygen, and loaded with iron, the phosphate leaking from their decaying remains can slowly combine with the iron and water to form a mineral called vivianite. It starts out clear and colorless but will rapidly turn progressively darker shades of blue upon exposure to air as the iron within it reacts with oxygen. The formation of vivianite (also known as blue ironstone) is helped along by bacteria which act to dissolve iron out of soil and phosphate out of bodies while also directing the growth of the blue crystals.

In the case of Mr. White, in keeping with the styles of the time, his coffin had a glass window installed in the front so his face could be seen by mourners when the lid was shut. At some point after burial, the glass had broken, allowing groundwater to seep inside and react with the cast iron coffin and phosphate-rich body. The end result was a corpse surrounded by blue vivianite crystals, revealed when the coffin was exhumed as part of an archaeological rescue excavation over a century after being buried.



**General Assembly
21 Mar 24**

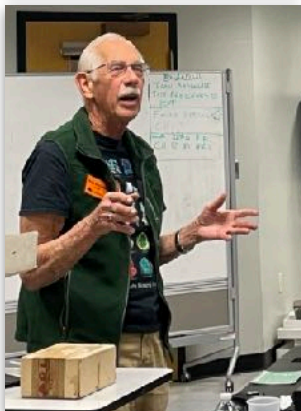
48 hearty rockhounds came to CSMS general assembly March 21, 2024 at Colorado Springs Christian School. The speaker was Dr. Pete Modreski. Pete dazzled us with science. He brought in all sorts of measuring equipment and a UV flashlight to demonstrate and teach us how to take measurements. Thanks Dr. Modreski!



We also did regular business and gave out free gems and minerals to guests. New president Alex and Past President John Massie presented Rick Jackson with a certificate of appreciation to commemorate his two years of service with the society during the pandemic. Thanks Rick!



— Editor, J. Emery



Hueco Tanks State Park

Tina Cox

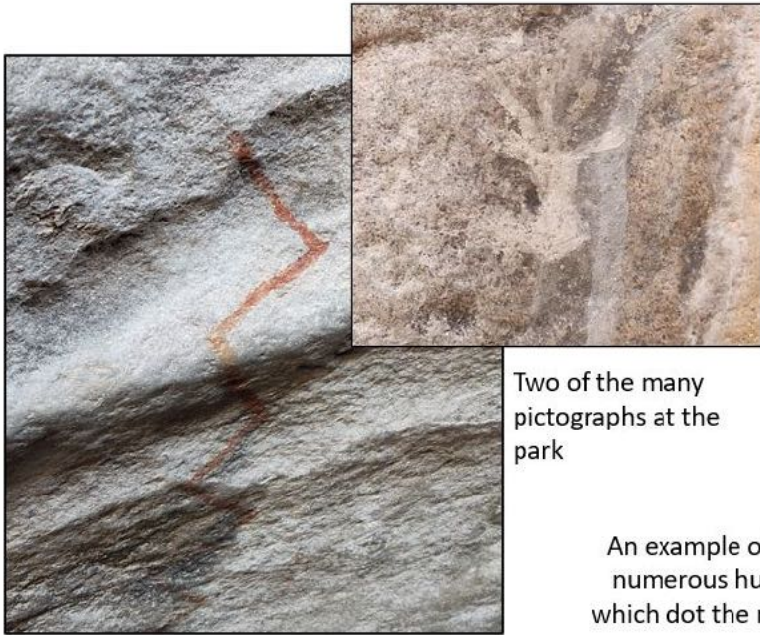
An easy half hour drive west of the eastern limit of El Paso, TX sits an odd formation of igneous rocks seemingly out of place in the desert landscape. Their shape is distinctly different than the nearby Franklin or Hueco Mountains. These odd formations comprise Hueco Tanks State Park. Their uniqueness warrants a visit if you find yourself in the greater El Paso area.



Scientists believe these formations developed when magma cooled beneath limestone. Over time the limestone eroded away, revealing these interesting and impressive formations. Dotted with hollows – or huecos – the rocks capture or channel precious rain water, thereby providing a bit of an oasis habitat in the middle of the Chihuahuan desert. In multiple areas of the park evidence exists of ancient human occupation of the area, in the form of pictographs. There are also caves which provided shelter to humans, as evidenced by the smoke marks on the ceiling.

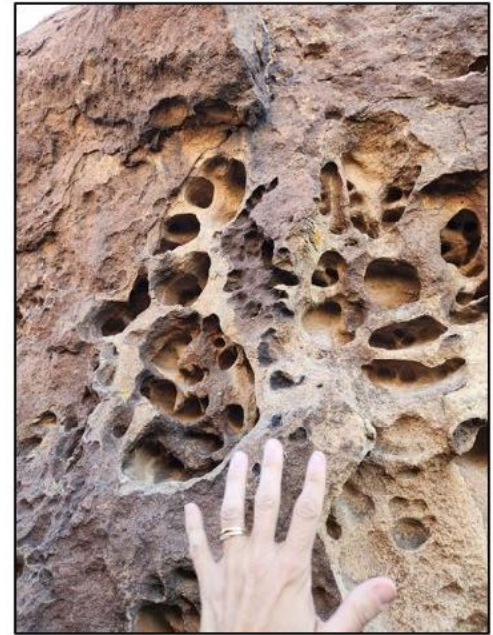
The park consists of three “mountains” and one “spur.” Only one of these mountains is open to unguided hiking. The remaining areas of the park are restricted to guided tours, which are offered daily at no extra cost. Due to the fragility of the ecosystem and the limited park resources, admission is capped to 70 people at any time, and the cost of admission is \$7 per person. Reservations are recommended. However, we arrived without reservations on a morning in March and had no problem gaining entrance. All visitors are required to watch a brief orientation video. The park staff provided an excellent overview of the various trails, caves, pictographs, etc.

Continued...



Two of the many pictographs at the park

An example of the numerous huecos which dot the rocks



Due to time constraints and exceptionally high winds, we limited our adventure to two short hikes. One hike allowed us to view several pictographs. The other hike took us to the top of North Mountain and provided some impressive views of the surrounding area. It was a very unique experience, and I am glad we took the time to explore this relatively unknown geologic wonder.





Fossilfun14@gmail.com

March Madness not just Basketball

Pebble Pups and Earth Scholars have been very busy this month. Our meeting March 5th at the East Library was about crystals and habits. We learned and shared lots of cool facts and samples with each other. Eric provided wooden treasure chest with mineral and rock treasures inside. Thank You. Our next meeting is April 2, at the annex, 4:15 - 5:15, the theme will be geodes and where to locate them while rock hounding.



Shout out

Thank you to everyone that donated to the pups: Spruce Dental, Laura Canni, Alex, WIPS, Dinosaur Resource Center, and so many more. We need the white flat boxes for lessons 2–4-inch bottom (11 x16) that can hold a variety of items for outreach programs and pup meetings lessons, small mineral, fossils, and polished stones for give away materials. We gave to school children and Geology Day over a thousand samples just this month alone.



Volunteers Needed for Upcoming Show

I need several volunteers to run our June booth. Our amazing Betty that has helped for over twenty years straight will not be available. We hope to have craft activities, fossil and mineral digs, display and much more. All three days are needed or I will have to scale down our great booth. Please contact David or Alex asap. Thanks!



Beyond the Lens: Julia Skolas, Colorado's Forgotten Pioneering Woman Photographer

By Steven Wade Veatch

Photography is a way of feeling, of touching, of loving. What you have caught on film is captured forever...It remembers little things, long after you have forgotten everything.

– Aaron Siskind

Julia Skolas (1863-1934) was one of the most successful pioneer women photographers in early 20th-century Colorado (Figure 1). This was a profession dominated by men. Entering a career in photography proved to be challenging for women, both in terms of finding steady work and earning a sufficient income. The weight of the equipment, knowledge of chemicals, complex developing techniques, and outdoor work made the task more difficult for them. Skolas used standard photographic skills and an innate artistic flair to create her photographic record of the idyllic landscapes and natural wonders of the Pikes Peak region. Her work records early scenes of Colorado Springs, and moments of life in Cripple Creek, making its history come alive a century later.

Not only does her portfolio consist of stunning studio portraits, but it also features captivating photographs that memorialize family events and highlight the exhilaration of Cripple Creek's mining industry. Some of her photographs have survived and are still available for viewing.

Julia Skolas was born in Wisconsin in May 1863 to Norwegian parents. She spent her childhood with her four brothers and five sisters on a farm near Cottage Grove, a short distance east of Madison. She attended school through the 9th grade.

Skolas, in the early 1890s, intrigued by the American West, and despite being single and in her thirties, packed and fastened her trunks, said goodbye to family and friends, and boarded a train on a journey of almost one thousand miles to Denver. The trip out West might have intimidated a lesser woman, but she remained undaunted. According to the Rocky Mountain News, Skolas attended Denver's annual Norwegian New Year's Eve ball on December 31, 1892.¹

It has been speculated that Skolas went to work, from 1891 - 1893, for Charles A. Nast, who had a photography studio at 1624 Curtis Street in Denver. This start date coincided with



Figure 1. A behatted Julia Skolas. Undated photograph by Julia Skolas. Courtesy of Special Collections, Pikes Peak Library District, 394-51.

¹Rocky Mountain News, January 6, 1893, p.2, c.1.

her arrival in the city. It is possible that Nast mentored her in photography, including developing techniques. By 1894 she was living at 1623 Pearl Street in Denver.²

As the twentieth century neared, Skolas grew restless. According to the Colorado State Business Directory, she moved from Denver to Colorado Springs in 1899, about 25 years after the city was founded in 1871. The population of Colorado Springs was just over 11,000. She arrived at her home base full of enthusiasm and ready for anything. From 1900 to 1907, she operated a photography studio at the foot of Pikes Peak.³ Recognizing how much was at stake, she settled into her new studio at 226 South Tejon Street and worked long hours. Later, she moved her business a few doors north to 224 South Tejon Street—an ideal location across from the El Paso County Courthouse. Her studio was also her residence. She had a rare, elusive, and intriguing presence, and lived life on her terms.

Skolas worked hard, and expanded her photography skills beyond the studio, capturing many images outdoors. Enthralled by the beauty of the area and filled with enthusiasm, she explored the Pikes Peak region, where she discovered a predilection for wild landscapes and outdoor adventure. She photographed all the major points of interest: Garden of the Gods, 7-Falls, Ute Pass, the summit of Pikes Peak, and other nearby landscapes. She knew the picturesque scenery well.

While she was living in Colorado Springs, Tabor Prang Art Company, a well-known art-print producer in Springfield, Massachusetts, purchased the copyright of Skolas' photograph *Madonna and Child* (Figure 2) in 1906. Tabor Prang continued to sell this print until the 1920s.



Figure 2. Art print of *Madonna and Child* by Julia Skolas. She sold her copyright of this photograph to the Tabor Prang Art Company. *Photo from Ancestry.com.*

² Corbett & Ballanger's 22nd Annual Denver City Directory 1894.

³ *Film and Photography on the Front Range.*

Skolas participated in the community affairs of Colorado Springs. As a member of the Monday Progress club, she took part in women's social and educational activities. Members made presentations on current events and the arts. According to the *Colorado Springs Gazette*, the club chose a picturesque location with wildflowers in North Cheyenne Cañon for its 1903 annual picnic. A reporter said, "Miss Skolas . . . presented each guest with a puzzle, which proved to be a little sketch illustrating the name of the individual."⁴ Later, the *Colorado Springs Gazette* reported on a debate the club held on "Labor organizations" with Mrs. C. L. Smith of Manitou Springs representing the unions' side and Julia Skolas taking the industrialists' position.⁵ In addition, the civic-minded Skolas helped establish the Colorado Springs Badger Club, a gathering of ninety-one locals who hailed from Wisconsin.⁶

Skolas was intensely interested in Cripple Creek. Perhaps she was looking for something personal. What might she find in this magical place? In 1908, she moved to the gold camp, unpacked her scuffed, loaded trunks, and, with renewed ambition, opened the doors of her photography studio on bustling Bennett Avenue.⁷ With its lofty ceilings, wallpaper, rugs, and framed photographs, her studio was an inviting space. In her workplace, she stood behind the camera taking photographs of babies, confirmations, graduations, and anniversaries, with customers posing in front of festoons of tapestry and other decorations. When the day ended, she no doubt drew long drapes to block the view of electric-lit Bennett Avenue. She operated her studio with a sense of professional sensibility, and she quickly fit into Cripple Creek's mining milieu.

Outside of her studio, her eyes and camera lens absorbed everything she saw. The irrepressible photographer ventured out into the district and photographed its mills, samplers (Figure 3), mines (Figures 4 and 5), and underground workings (Figure 6). She was opening fresh and invigorating vistas for herself and gained recognition for her photographs of the gold camp.

Skolas also made postcards of her photos and sold them as souvenirs in her Bennett Avenue studio. She gathered an astonishing portfolio of mining district photographs, showcasing numerous people and places. Day after day Cripple Creek offered Skolas opportunities to photograph. Her work in her studio on Bennett Avenue became the acme of her career.

Skolas blossomed in Cripple Creek and participated in local affairs. The Teller County Republican Assembly met on August 6, 1920, at the Miners' Union Hall to nominate candidates for county offices. Widely esteemed, and with deepening community recognition, the well-dressed Skolas was nominated for superintendent of schools.⁸ She was beaten in the election by Blanche Odell.⁹

⁴ *Colorado Springs Gazette*, June 28, 1903, p. 16, c.6.

⁵ *Colorado Springs Gazette*, January 29, 1905, p.23.

⁶ *Rocky Mountain News*, July 15, 1906, c. 5, p. 31.

⁷ *Film and Photography on the Front Range*. Digital copy, no page numbers.

⁸ *Rocky Mountain News*, August 7, 1920. c.4., p. 7.

⁹ State of Colorado: Abstract of Votes Cast, 1920, p. 23-24.



Figure 3. The Eagle Company Ore Sampler near Victor, Colorado, which served the regional mines by doing assays of the ore from mines to determine worth and content. The sampler also bought ore. *Undated photo by Julia Skolas. Courtesy of the Cripple Creek District Museum. CCDM 009.*

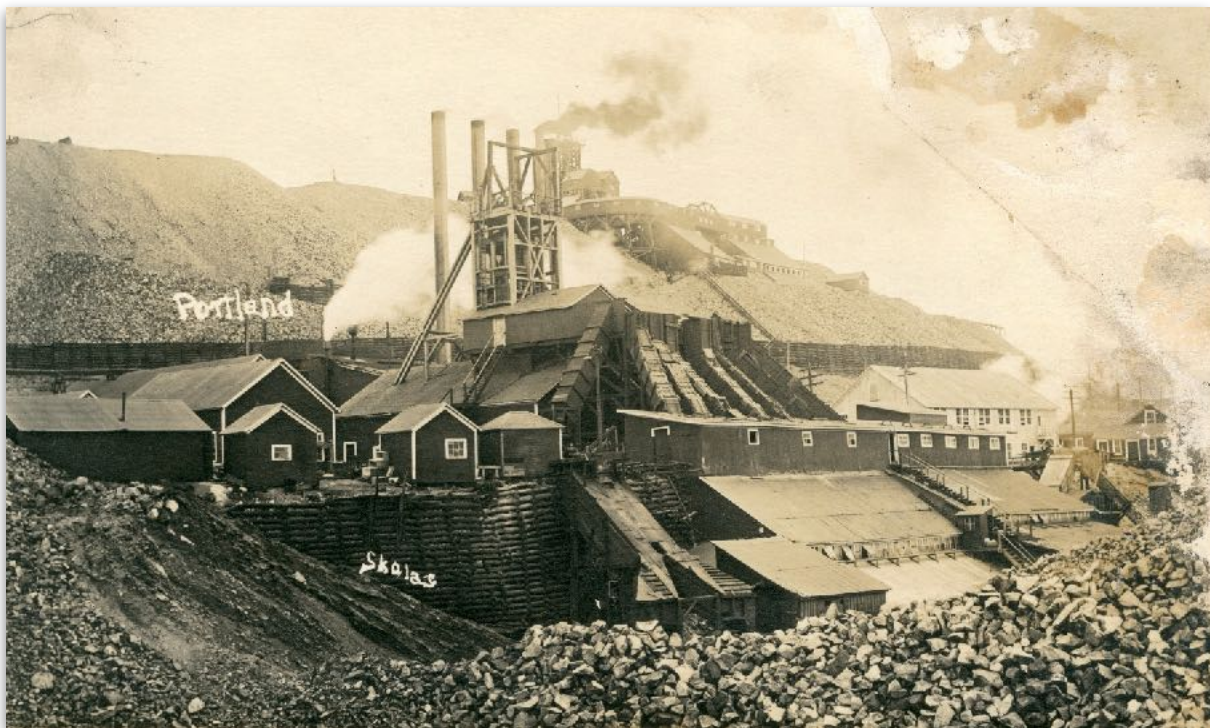


Figure 4. An undated postcard view of the Portland mine, Cripple Creek mining district, by Julia Skolas. *Photo courtesy of the Cripple Creek District Museum, CCDM A82-182.*



Figure 5. A photograph of the Abe Lincoln mine. A note that goes with the photograph is from Mr. Gerald Peoples, a real estate broker who provided the following brief description: "I sold the Abe Lincoln Mine to a gentleman from Illinois. His father was an attorney Schwartz, I think, who acquired the mine in exchange for legal work that he had done for a customer who could not pay." *Photo by Julia Skolas, photo date July 25, 1908. Photo courtesy of the Cripple Creek District Museum, CCDM P2011179.*



Figure 6. A view of the Stratton vein 600 feet below the surface at the Abe Lincoln mine. Visitors often toured some Cripple Creek mines and had group photos taken. Flash photography by Julia Skolas, photo date August 26, 1909. *Courtesy of the Cripple Creek District Museum.*

The excitement of the gold camp drew Skolas to try her hand at mining. According to an article in the *Rocky Mountain News*, she operated a mine on Tenderfoot Hill under lease with several business associates. The reporter wrote, “The ground in question is owned by the Sangre de Cristo Tunnel and Mining Company and is part of the Little Gem and Louisville Lode mining claims.”¹⁰ The reporter stated that there was a 50-foot shaft down to where drift mining was occurring on a “well defined vein.” Such surviving details give only the most fleeting glimpses into her remarkable life in Cripple Creek.

As time moved on, business grew more difficult, and Skolas competed with nine other photographers in the Cripple Creek district. She remained in business in the mining camp until sometime around 1922.¹¹ By this time, some of the gold mines were closing and people were moving out of the district. As business declined, Skolas finally shuttered her studio. On November 12, 1924, the *Gazette Telegraph* reported that Skolas intended to relocate her studio equipment and mining camp negatives to Denver.¹² Surely, she left the gold mining district with regret as she moved to Denver with some of her plates, camera, trunks, boxes, and bags.

After Skolas closed her studio, some of her glass plates made their way to the store across the street.¹³ It would be too expensive to freight them out of town. Later, that store became an antiques shop owned by Dolly Johns in the 1960s and early 1970s. Johns sold her store around 1973 to Jim Brownlee and his business partner. Brownlee put in a woodworking shop. In the back of the workshop, they discovered that Dolly had left behind hundreds of glass plate negatives that belonged to Skolas. The vast majority were portrait images, although some plates were of mines and related images. Unfortunately, Jim and his partner incorporated multiple glass plate negatives into custom lamp shades which they then sold to the public. Sadly, this entire inventory of glass plate negatives had been used up within a few years.

Skolas’ studio in Denver did not do well. Because of insufficient earnings from her photography work, she closed her Denver studio and sold her equipment. She placed this ad in the January 18, 1925, *Denver Post*: “One 8 x 10 view camera, one 8 x 10 portrait lens, cheap. Skolas, Apt. 29 1/2 1720 Logan.”¹⁴ As she closed her studio doors for good, she sadly shook her head. She had operated her photography business in the Mile High City for just under a year.¹⁵

After she closed her studio, she moved to 22nd Avenue.¹⁶ Julia Skolas then switched to other lines of work, including working in millinery, and then selling candy.¹⁷ She lived in Denver until the 1930s, at which point she moved back to Wisconsin, where her family still resided. She never married.

¹⁰ *Rocky Mountain News*, December 26, 1915, c. 1., p. 29.

¹¹ *Film and Photography on the Front Range*, digital copy, no pages.

¹² *Colorado Springs Gazette Telegraph*, November 12, 1924.

¹³ Raymond Drake, email message, Jan 24, 2024.

¹⁴ *Denver Post*, January 18, 1925.

¹⁵ *Colorado Springs Gazette Telegraph*, November 12, 1924.

¹⁶ Denver Householders’ Directory and Street and Avenue Guide (1926-1930).

¹⁷ Denver City Directory 1924-1930.

Skolas lived in Madison, Wisconsin, from 1931 until the end of her life. She was a Christian Scientist and would not go to a doctor.¹⁸ She always rejected a life filled with diseases and unsuccessful remedies. In her later years she suffered from arthritis. She died at home on December 31, 1934, from a heart condition at 71 years old. Her family laid her to rest at the West Koshkonong Lutheran Church Cemetery in Stoughton, Wisconsin.

The book *Representative Women of Colorado* portrays Julia Skolas as a talented artistic photographer known for her depictions of “life of today.”¹⁹ Her well-known studies include *Madonna and Child* (Figure 2), *Little Miner*, *Hermit* (Figure 7), *Retrospection*, and *Three Friends*. Yet historians find her most important achievements would turn out to be photographs of mines, mining operations, and miners—all invaluable research tools.

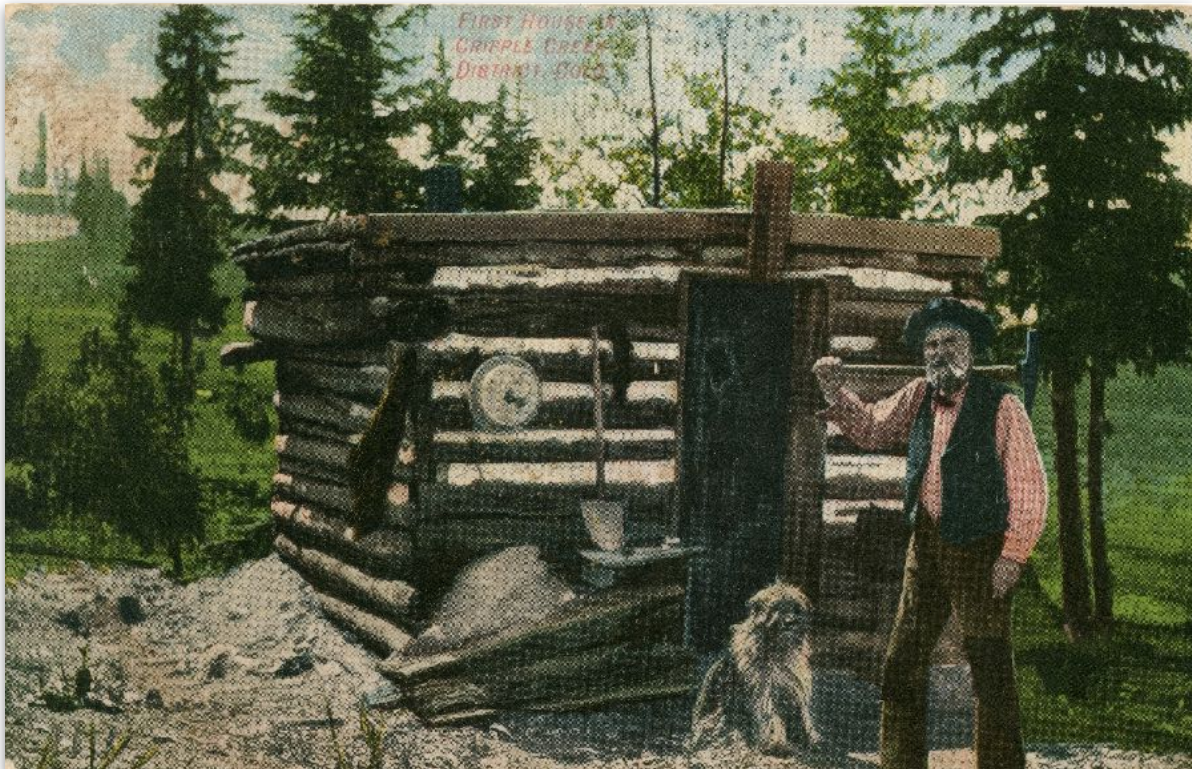


Figure 7. Skolas titled this photograph *Hermit*. This hand-tinted postcard, mailed in 1909, is of a bearded man in a hat with a pickaxe over his shoulder standing in front of a log cabin in the Cripple Creek area. A dog is sitting on the ground to his right. *Courtesy of the Cripple Creek District Museum. CCDM CC-P112.*

Currently, historians have limited information about what happened to most of her negatives.²⁰ Although some were made into glass lampshades, others have survived. The Pikes Peak Library has a modest group of 52 of her photos. The Denver Public Library’s Western History Collection has five of her photos depicting scenes from the Cripple Creek mining district. The Cripple Creek District Museum has a handful, as does the Lowell Thomas Museum in Victor. Other surviving photos are now held in private collections.

¹⁸ *Julia Skolas, Professional Photographer*. Cottage Grove Hist. Society.

¹⁹ *Representative Women of Colorado*.

²⁰ *Wisconsin State Journal* (Madison, WI), December 31, 1934.

Skolas was a photographer during the first 24 years of the 20th century. She possessed her own unique force and was a straightforward, modern, and intelligent woman. Skolas was among a few successful women photographers who were pioneers in their field. She was ineluctably drawn to the West, where her lens captured people, places, and events of the Pikes Peak region. Her artistic taste rendered her photography an exercise in mastery. Skolas' work, which provides insight into the life of that period, has only recently been recognized as some of the most important documentation of the early twentieth century in the Pikes Peak region. Her work in Cripple Creek conjures up a playful and free-spirited woman of great energy. By capturing moments in the Cripple Creek district, her work has established her as one of the important district photographers, offering historians valuable insights into life in a gold mining Mecca and the Pikes Peak region.



Figure 8. Julia Skolas and her cat, ca 1910-1920. Photograph by Julia Skolas. *Courtesy of Special Collections, Pikes Peak Library District, 394-53.*

References and Further Reading

19th Century Colorado Photographers, retrieved from <https://www.19thcenturycoloradophotographers.com/colorado-photographers/miss-julia-skolas-an-accomplished-colorado-photographer> on January 2, 2024.

Colorado Springs Gazette, June 28, 1903.

Colorado Springs Gazette, January 29, 1905.

Colorado Springs Gazette Telegraph, November 12, 1924.

Corbett & Ballanger's 22nd Annual Denver City Directory 1894.

Denver City Directory (Denver: Gazetteer Pub. Co.) 1924-1930.

Denver Householders' Directory and Street and Avenue Guide 1926-1930.

Denver Post, January 18, 1925.

Film & Photography on the Front Range. edited by Tim Blevins, Dennis Daily, Sydne Dean, Chris Nicholl, Michael L. Olsen & Katie Rudolph. United States, Pikes Peak Library District, 2012.

Julia Skolas, Professional Photographer (1863-1934). United States, Cottage Grove Area Historical Society, 2013.

Rocky Mountain News, January 6, 1893.

Rocky Mountain News, July 15, 1906.

Rocky Mountain News, December 26, 1915.

Semple, James Alexander. *Representative Women of Colorado: A Pictorial Collection of the Women of Colorado who Have Attained Prominence in the Social, Political, Professional, Pioneer and Club Life of the State*. United States, Alexander Art Publishing Company, 1914.

State of Colorado: Abstract of Votes Cast at the Primary Election Held on the Fourteenth Day of September, A. D. 1920 and at the General Election Held on the Second Day of November, A. D. 1920 for Presidential Electors, U. S. Senator, Congressmen and State, Legislative and District Officers and Proposed Constitutional Amendments, Initiated and Referred Bills also Directory of the United States, State, Legislative, District and County Officers, Eames Brothers Printers, Denver, Colorado, 1920.

Wisconsin State Journal (Madison, WI), December 31, 1934.



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

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



John Emery
Editor

Thanks to our contributors. We encourage everyone to submit articles, photos, illustrations or observations. Share your experiences, your new finds, or simply your enjoyment of our last field trip. Handwrite it, type it, or email it. Format does not matter. All submissions are welcome. The deadline for items to be included in the next Pick & Pack is the **last day of the month.**

To submit an item:

For hardcopy photos or articles, mail to the address below or bring them to the General Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos can be submitted at resolutions above 200 dpi in any format.

Feature articles can be in MS Word or Mac Pages, preferably not pdf. The newsletter is produced in Mac Pages.

e-mail the editor:
pickandpackeditor@gmail.com

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

The PICK & PACK is published ten 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.

Field Trip Schedule

Subject to the Laws of Nature

- 13 Apr 24:** Rocky Mountain High claim
- 20 Apr 24:** Rocky Mountain High claim
- 4 May 24:** Baculite Mesa
- 11 May 24:** April fools claim
- 29-30 Jun 24:** Wyoming Fossil Digs
- 7 Sep 24:** A pilgrimage to Denver for Shows, depending on interest. Denver shows run 6-15 Sep this year.

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

MayaQ at Pixabay

CSMS UNDERGRADUATE RESEARCH GRANTS

Mike Nelson
csrockguy@yahoo.com

CSMS colleagues: I am pleased to announce that our club has reinstated the Student Research Grant Program that has been paused since the start of the “pandemic.” In years past the program was extremely successful and offered awards to students who later presented their research results at professional meetings and often published in respected professional journals. In both instances CSMS received much positive recognition from the national geological and rockhound communities. The application form describing the program may be located on the CSMS website at www.csms1936.com or by contacting Mike.

The primary goal of the Colorado Springs Mineralogical Society (CSMS) Student Research Grant Program is to promote and support original research on Colorado geology by **undergraduate students**. The grant program does not seek to cover all the researcher's expenses but instead should be viewed as a professional endorsement of the research endeavor. Requests for grants are judged on how well the proposed research will advance the science of geology and its related branches **within the State of Colorado**. Since the grant program budget is not anticipated to be large enough to fund every research proposal, the grants will be awarded on a competitive basis.

Pike's Peak Gem & Mineral Show

Presented by the Colorado Springs Mineralogical Society
 June 7 - 9 2024, Norris Penrose Event Center, 1045 Lower Gold Camp Rd, Colorado Springs
 Fri 10 AM - 6 PM, Sat 10 AM - 5 PM, Sun 10 AM - 4 PM

Request for NON-COMPETITIVE Display Space

| | |
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| Name: | Society: |
| | |

Address:

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| Phone: | Email: |
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| City: | State: | Zip: |
| | | |

Describe display or cases:

| | | |
|-----------------------------|--------------------|-------------|
| I will bring my own display | Your case length: | # of cases: |
| I will need a case* | Case size desired: | # of cases: |

* CSMS cases are approximately 36" by 24" outside measurements. A few 4-foot cases are generally available. There is a hasp on the case that accepts an exhibitor-supplied padlock.

Exhibitors are urged to bring their own cases. A limited number of club cases are available upon request. Exhibitors using club cases will need to furnish any risers, linings, padlock or accessories as needed. EACH CASE WILL BE LIMITED TO 150 WATTS.

Setup is from 1 PM to 7 PM on Thursday or 8 AM to 10 AM on Friday before the show opens. Note new show hours for Friday. Tear down is 4 PM to 8 PM on Sunday.

Return by mail or email by June 1st to reserve a case and exhibit space. After June 1st, exhibitors are still welcome based upon availability of cases and space. Return to: Bob Landgraf, 304 Palmer Trail, Manitou Springs, CO 80829 719-658-1364 rmlwp74@aol.com

Presently we are only looking at People's Choice award for best case for judging.

Signature of Non-Competitive Exhibitor: _____

With the signing of this request, email submission of this document or showing up with an exhibit, it is mutually agreed that the Colorado Springs Mineralogical Society and the Norris Penrose Event Center shall not be liable to any exhibitor for damage, loss or destruction of any exhibit or injury to their person for any cause and all claims for injury are expressly waived by the exhibitor.



Pick & Pack
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CSMS is an incorporated nonprofit organization with the following goals:

- To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.
- To encourage study, collection, and fashioning of minerals.
- To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.
- The Pick & Pack newsletter is published 10 times each year to assist and promote the above.

Joining the Colorado Springs Mineralogical Society (CSMS):

- Meetings are held the third (3rd) Thursday of each month, except January & August.
- 7:00 PM at Mt. Carmel Veterans Service Center; 530 Communication Circle, Colorado Springs, CO 80905
- Visitors are always welcome.
- Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100.
- Find the application at the web site: www.csms1936.com. If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Meeting or visit our web site.

Meetings: CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Crystal Study Group, Faceting Group, Fossil Group, Lapidary Group, and Pebble Pups/ Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

Membership Benefits: Yearly dues include 10 issues of the *PICK & PACK*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), a year of learning and enjoyment, plus a lifetime of memories.

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

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