



**Colorado Springs
Mineralogical Society**
Founded in 1936
Lazard Cahn
Honorary President
“Pick & Pack”
Vol 61 Number 6

CSMS General Assembly

Thursday, July 15, 2021 7:00 PM
Mt. Carmel Veterans Center

GUEST SPEAKER:

Chris Burris
“A Survey of Select Paleontological Finds”

**** Members with last name M-Z bring refreshments ****
In case of inclement weather please call Mt. Carmel Veteran’s
Service Center 719-309-4714



In this issue...

Upcoming Events	2 - 3
Secretary's Spot	4
Federation News Post	5
Presidential Matters	6
Pebble Pups	7
Feature Article - M. Nelson, <i>An Answer to the Pandemic Blues: A Road Trip to the Kansas Cretaceous Chalk Beds</i>	8 - 14
Classifieds/ Announcements	15
Writing Awards / RoY	16
Field Trip Schedule	17

GUEST SPEAKER: Chris Burris: “A Survey of Select Paleontological Finds”



Chris Burris is a CSMS Member at Large and avid rockhound. He will present some of his more remarkable paleontological finds and discuss type, locality and features. Chris is a long-time CSMS member and he will talk about what the club has meant to him.



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

CSMS Calendar

Jul '21	Aug '21							
07/06/21	08/03/21	Fossil Group	CANCELLED	1st Tues	7:00 PM	Pikes Peak United Methodist Church	Jerry Suchan	303-648-3410
07/01/21	08/05/21	Board Meeting		1st Thur	6:00 PM	TBD	John Massie	719-338-4276
07/15/21	08/19/21	Pebble Pups (see session online)	CANCELLED	3rd Thur	5:30 PM	Mt. Carmel Center	David St. John	719-213-1475
07/15/21	08/19/21	General Assy Meeting		3rd Thur	7:00 PM	Mt. Carmel Center	John Massie	719-338-4276
07/22/21	08/26/21	Crystal Group		4th Thur	7:00 PM	Mt. Carmel Center	Kevin Witte	719-638-7919
07/22/21	08/26/21	Faceting Group	CANCELLED	4th Thur	7:00 PM	Berta's House	John Massie	719-338-4276
By appt	By appt	Lapidary Group	CANCELLED	By appt	By appt	Sharon's House	Sharon Holte	719-217-5683

Other CSMS Events

Not cancelled:

Board Meeting	July 01, 2021 6:00 PM
General Assembly Meeting	July 15, 2021 7:00 PM Mt. Carmel
Crystal Group	July 22, 2021 7:00 PM Mt. Carmel

Aug 21: 11 AM - 3 PM, Annual CSMS Picnic at the Western Museum of Mining and Industry. Present your CSMS club membership card to get into the museum free. The picnic will be outside on the shady lawn.

Oct 1-3: Pikes Peak Gem, Mineral, & Jewelry Show, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Sponsored by the Colorado Springs Mineralogical Society; see <https://pikespeakgemshow.com>. This is the gem & mineral show normally held around June 1.

Community Events (P. Modreski)

June 25-27: Fri-Sat-Sun, "Rocks, slabs, minerals, gems, jewelry, fossils, and yard sale," 9 AM – 5 PM Fri & Sat, 9 AM - 4 PM Sun, in the front yard of Eldon Hunewell's home at 348 S. Newcombe St., Lakewood. The material is from Eldon and from Joanne and Ralph King. With questions, please contact Eldon at deafroxguy@aol.com

July 23-25: Fairplay Gem, Mineral & jewelry Show

Aug 12 - 15: Thurs - Sun, "Buena Vista Contin-Tail Gem, Mineral & Fossil Show." At the Buena Vista Rodeo Grounds; no admission charge.

Continued ...

Community Events (P. Modreski) - Continued

Aug 19 - 22: Thurs - Sun, 9 AM – 5 PM, Woodland Park Rock, Gem and Jewelry Show; 19250 E. US 24 (“between Walmart and Safeway”), Woodland Park. No admission charge.

Aug 20 - 22: Fri - Sun, 9 AM – 5 PM, 21st Annual Lake George Gem & Mineral Show, Highway 24, Lake George, CO. No admission charge. Hosted by the Lake George Gem and Mineral Club.

Aug 21: 11 AM - 3 PM, Annual CSMS Picnic at the Western Museum of Mining and Industry. Present your CSMS club membership card to get into the museum free. The picnic will be outside on the shady lawn.

Sept 10-18: Colorado Mineral and Fossil Fall Show, at the Crowne Plaza Denver Airport Convention Center, 15540 E. 40th Ave, Denver. No admission charge; see www.coloradomineralandfossilshows.com.

Sept: 10-19: National Western Complex Denver Mineral, Fossil, Gem & Jewelry Show. 10 AM – 6 PM daily; no admission charge; on the north side of I-70 at Exit 275-B, Brighton Blvd.

Sept 16-19: Denver Gem & Mineral Show; at the Colorado Convention Center, held as part of the “Hardrock Summit” mineral and gemstone show. See www.denvermineralshow.com. This is the show hosted by a Council of area gem and mineral clubs, and formerly held at the Denver Merchandise Mart.

Oct 1-3: Pikes Peak Gem, Mineral, & Jewelry Show, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Sponsored by the Colorado Springs Mineralogical Society; see <https://pikespeakgemshow.com>. This is the gem & mineral show normally held around June 1.

Dec 10-12: Flatirons Gem & Mineral Show, Boulder County Fairgrounds, Longmont CO. Sponsored by the Flatirons Mineral Club, Boulder, CO; see www.flatironsmineralclub.org

Secretary's Spot

2021 CSMS Officers

John Massie, President

Rick Jackson, Vice-President

Vacant, Secretary

Ann Proctor, Treasurer

Adelaide Bahr, Membership Secretary

John Emery, Editor

Chris Burris, Member-at-Large

Renee Swanson, Member-at-Large

Sharon Holte, Past President

2021 CSMS Chairpersons

Rick Jackson, Program Coordinator

John Massie, Show Vol Coordinator

Mike Webb, Field Trip Coordinator

Steven Veatch, 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 Representative

Vacant, Federation Representative

Meeting Minutes

Colorado Springs Mineralogical Society

CSMS General Assembly Minutes

June 17, 2021

The meeting was called to order by president Joh Massie at 7:05 PM.

The meeting was held at the Mount Carmel Veterans Center.

Steven Veatch gave an interesting talk on the Castle Rock granite quarries.

There were 20 members present.

During the break we gave 20 mineral specimens out to winners of the drawing.

It was announced that we will be holding the Pikes Peak Gem and Mineral show October 1,2, and 3. We will set up on Thursday September 30, 2021.

Steven Veatch was presented with a going away gift of a desk clock with a plaque.

The pebble pup's new leader was announced. His name is David St John. He is a retired teacher.

The Rock hound of the year awards were not given out because the recipients were not present.

Treasurer: no report

The crystal group will start meetings on June 24, 2021.

Because of the lack of funds due to extending the 2020 dues to 2021 we decided not to issue grants this year.

End of minutes.



Federation News Post

American Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies



American Federation Convention and Show

- 2022, Jan 29 - 30 - Tyler TX

Rockhound Information

[William Holland School of Lapidary Arts \(Young Harris, GA\)](#)

[Wild Acres Retreat \(Little Switzerland, NC\)](#)

[Bureau of Land Management](#)

[Crystallography](#)

[U.S. Geologic Survey Topographic Maps](#)

[TopoZone](#) Topographic maps of the United States on-line.



RMFMS Conventions, Workshops and Show

- 2021, June 17-20 - Big Piney, WY - [Conference Packet](#), [Convention Forms Packet](#), [Show Flyer](#)
 - Need just a single form from the Forms packet? Get it here:
 - [Competitive Exhibit Entry Form](#)
 - [Non-competitive Exhibit Entry Form](#)
 - [Junior Cash Award Entry Form](#)
 - [Proxy Form](#)
 - [Credentials for Delegates and Alternates Form](#)
 - [Junior Program Flyer](#)

Future Convention Locations

- 2022, May 7-8 - Las Vegas, NV

Local Club Shows

To let other clubs in our federation know about your upcoming show, [send an email to the Newsletter Editor](#).

For Member Club Show general information go to the [“RMFMS Club Lists”](#) page and check the club or city you are interested in.

Want to see the shows in your state? Visit the Rock and Gem Magazine’s Show page and select the state you are interested in: [Rock and Gem Magazine’s Show Page](#)

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



2021 Satellite Group Chairs

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

2021 Liaisons

Florissant Fossil Beds National Monument:
Steven Veatch
Western Museum of Mining and History:
Steven Veatch



Presidential Matters



A message from CSMS President John Massie:

It was good to see every one that came to the June meeting. I am looking forward to seeing more members at future meetings.

Our Federation Representative Mike Nelson returned from the AFMS meeting loaded with awards earned by members of the club. Come to the next meeting on July 15 and help us celebrate our members success.

Contact me if you want to go on the next field trip to the Smoky Hawk Mine, the trip is on July 10. We have 10 openings left. Contact me for details if you want to attend, jmassie1075@gmail.com.

Please plan on helping at the Pikes Peak Gem and Mineral Show. We need help setting up on September 30, 2021 and people to help operate the show on October 1, 2 and 3. We also need help tearing down on October 3 after the show.

Thanks to every one for their support during the past trying year.

John Massie
CSMS President

Pebble Pups

Steven Veatch



CSMS Pebble Pups and Earth Science Scholars

NOTICE: Regular Pebble Pup meetings are **SUSPENDED** until TBD



Please visit our blog for special announcements and field trips:

<http://pebblepups.blogspot.com>

<http://www.csms1936.com>



Find your assignments at:

<http://pebblepups.blogspot.com/p/merit-badge-assignments.html?m=1>

Big Night for Steven Wade Veatch and the CSMS Pebble Pups



General Assembly was a big night for Steven Wade Veatch. Even as he transitioned out of the Pebble Pup leadership position, he treated us to a delightful presentation on Castle Rock Quarries, in collaboration with pebble pup Ben Elick. The same night, Steven held a special session of Pebble Pups at the Mt. Carmel Veterans Center ahead of the general assembly.

Steven also introduced us to the new Pebble Pup Leader, David St. John. David is a long time club member and has a long, impressive teaching background in Colorado. He will be assisted by two amazing pebble pups, Ben Elick and Jonathan Hair. Welcome to David St. John and his two new assistants. The club is fortunate to have such strong leadership to carry on the important Pebble Pup program.

The club is so grateful for Steven's tireless support and innumerable contributions over the past 30+ years. Best wishes for Shelly and Steven as they transition to Michigan.



CSMS President John Massie (Left) presented Steven (Right) with a parting memento.



Steven (Right) and incoming Pebble Pup leader David St. John (Left).



Steven and Shelly Veatch

Photos and writing: F. Rosenberg | Editing: J. Emery

An Answer to the Pandemic Blues: a Road Trip to the Kansas Cretaceous Chalk Beds

Mike Nelson
csrockguy@yahoo.com

You can't change who you are, but you can change what you have in your head, you can refresh what you're thinking about, you can put some fresh air in your brain.

- Ernesto Bertarelli

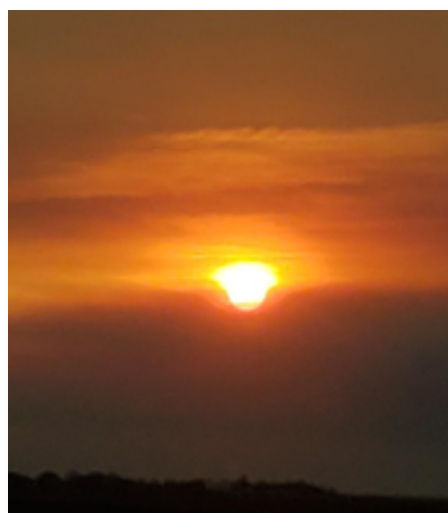
I was able to take a small break from my self-quarantine on a Saturday in October 2020 with a quick one-day field excursion to the Cretaceous chalk beds of western Kansas. I found out that the Wichita Gem and Mineral Society (WG&MS) was taking a field trip to western Kansas and that a former student of mine was leading the trip. In fact, Jerry was a one of my early students graduating in 1972 from Fort Hays State two years after I had arrived. I had not seen the lad since that date but had been in recent email contact. I decided that Colorado Springs was closer to the chalk beds than Wichita so decided to tag along and get some fresh air. As a former teacher I could not help but add a few comments at the outcrops!



Left:
Mike Nelson, Ph.D.,
Teacher, Explorer

A group of 15 or so fossil pickers met in Oakley, Kansas, (north of the chalk beds) at

10:00 AM. Unfortunately, my brain was a tad slow on that day and I sort of forgot my Mountain Daylight Time was an hour behind the Oakley Central Daylight Time; therefore, no roadside stops for breakfast and coffee! But, off we went at 10:15 AM heading south to outcrops along the Smoky Hill River.



Sun was peering over the horizon and through the windshield as I scurried across the High Plains at sunrise.

Mostly we were driving on wind-blown loess (essentially dust) of Pleistocene age; however, ~250 feet of the Neogene Ogallala Formation/ Group (sands, silts, etc.) forming the famous Ogallala Aquifer was not far below the surface.

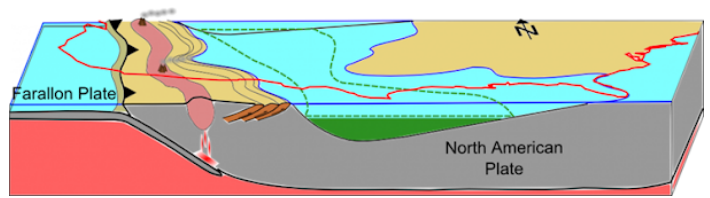


Right:
The High Plains are in severe drought and dust (much reworked loess) is on every country road.

The chalk beds are the eroded remnants of the Smoky Hill Chalk Member of the Niobrara Formation of Late Cretaceous age, about 82-87 Ma. The chalk that forms the bulk of the Member formed in a vast inland epeiric sea that stretched from the Arctic Ocean to the Gulf of Mexico. In the mid to late Cretaceous this sea, known by geologists as the Western Interior Seaway (WIS), split North America into three major subcontinents. In the United States the western boundary was the tectonic zone associated with various mountain building events generated by the Farallon Oceanic Plate being overridden and subducting under the North American Plate. Large amounts of coarse- to fine- sediment was eroded into the inland sea. To the east lay the remnants of former tectonic zones that created the Appalachian Mountains and their precursors. The land east of the seaway was non mountainous and did not contribute large amounts of sediment to the WIS although coastal and deltaic sediments are known.



Above: The Western Interior Seaway during much of the Late Cretaceous. Map courtesy of the USGS and W.A. Cobban and R.C. McKinney.



Above: Tectonic plate interactions in the western U.S during the time of the WIS. Sketch courtesy of the National Science Foundation and Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

Cooler waters from the Arctic Ocean were the first to invade the U.S. and came to a standstill in the earliest part of the late Cretaceous (perhaps the latest part of the early Cretaceous) and is known as the Mowry sea. These waters carried a cool water fauna rich in Inoceramid bivalves. The warmer water from the Gulf of Mexico carried a much different fauna (a tropical fauna with different bivalves) but also transgressed across the Continent and finally met the cooler arctic water in the early part of the late Cretaceous.

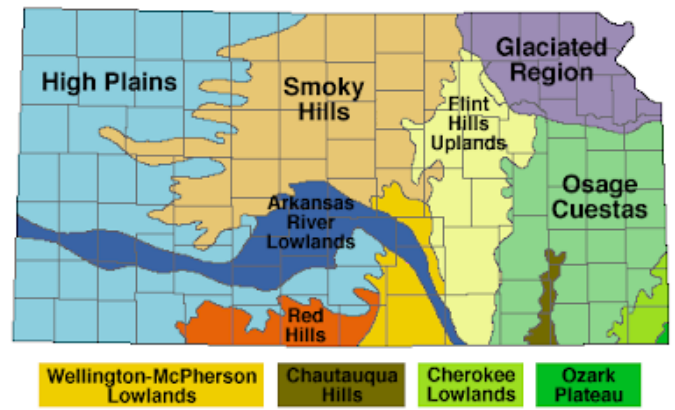


Above: The Paleogeographic Map of the Early Cretaceous (~125 Ma) shows the Arctic and tropical waters still struggling to meet up and complete the Western Interior Seaway. Graphic: compiled by Ron Blakey at Colorado Plateau Geosystems.

Continued ...

Central and western Kansas was situated in the deepest part of the WIS (~2500 feet) and has a nice fossiliferous section of lime rocks in the Greenhorn, Carlile, and Niobrara formations. Closer to home, CSMS members may observe WIS rocks in Garden of the Gods and surrounding environs, and especially in the Pueblo area.

Our field excursion was to hunt for fossils in the upper part of the Niobrara carbonate rocks in the Smoky Hill Chalk. These rocks are often covered by the Late Cretaceous Pierre Shale, a black shale that represents a shallower water deposition and can be observed to the west of Oakley at McAllister Buttes near old Fort Wallace, and at several sites within Colorado Springs. Although the Pierre has a spectacular fauna of coiled and straight cephalopods in many states, outcrops in Kansas are tough to locate and prospect. The late Cenozoic Ogallala Formation or Group, overlying the Pierre and/or Niobrara, crops out around the area and represents sediments eroded off the rising Rocky Mountains to the west and which originally covered Kansas east to the Flint Hills. Today the eastern edge of the Ogallala has eroded westward (and is still eroding) so that it now covers perhaps 25% of the State and defines the High Plains Physiographic Province, ~ Hays and west. However, eastward flowing streams such as the Arkansas, Smoky Hill, Saline, Solomon, and Republican Rivers have carved through the Ogallala and exposed rocks of the Niobrara Formation and technically these exposures along the rivers are part of the Smoky Hills. This is where the crew was heading—off the High Plains at Oakley south to the exposures in the chalk beds along the Smoky Hill River (big finger heading west).



Above: Generalized Physiographic map of Kansas. *Graphic courtesy of Kansas Geological Survey.*

Kansas is almost devoid of public lands where bone diggers can prospect; however, the Wichita club has a member who had permission from a landowner to collect fossils.



Above and Below: Okay bone pickers, here are some prime chalk beds! The yellow and gray colors of the chalk are due to weathering profiles. *Photos courtesy of Aaron and his drone.*



The Smoky Hill Chalk does not have a bountiful number of invertebrate fossils available for collecting. There are only two common inoceramid clams and sparse coiled and straight shelled cephalopods and they do not have the shiny nacre on the outside of their shells that would make them attractive. It seems as if acid water dissolved the aragonite (a carbonate mineral) that formed the nacre. In addition, the most common fossils are: 1) a large (up to 3-5 feet), very thin-shelled (quarter of an inch) inoceramid clam named *Platyceramus*;



Above: A “breaking up” *Platyceramus* covered with attached *Pseudoperna* (by head of hammer). Photo: M. Nelson.

and 2) a dime-size oyster named *Pseudoperna*. The clam needs lots of careful attention and plaster to extract from the rocks while the oyster is one of those fossils where your collection only needs a half dozen or fewer. It seems as if the big *Platyceramus* sort of floated on the oozy muddy bottom while the only attachment for the oysters was on the

clam shell. Outcrops have thousands of broken pieces of *Platyceramus* covered with *Pseudoperna* weathering out of the rocks.



Above: *Pseudoperna congesta* attached to an inoceramid shell. Photo courtesy of the National Science Foundation and Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

But fossil prospectors do not come looking in the chalk beds for clams and oysters—they are after the big boys and girls, the marine vertebrates such as mosasaurs, bony fish, flying reptiles, sharks, and plesiosaurs. The most common large vertebrate fossil in the Chalk is the bony fish known as *Xiphactinus* (formally known as *Portheus* when I was in school).



Above: Cast of a *Xiphactinus* skull from my personal collection. Photo: M. Nelson.

These massive fish reached a length of ~17 feet and the most famous specimen (~13 feet

long) was collected by George Sternberg in Gove County and contained a “recently swallowed” 6-foot-long fish named *Gillicus*. The field trip crew found several portions of fish vertebrae, probably of *Xiphactinus*, and those certainly caused some excitement. I found several large scales in splitting chalk layers that I can only presume came from this WIS citizen.

Sharks of various sizes are also represented in the Chalk Beds but almost always by teeth. The cartilaginous skeletons of sharks are rarely preserved. The most common sharks in the Chalk are *Cretoxyrhina*, *Cretalamna*, and *Squalicorax*.

of *Cretoxyrhina* teeth that were picked up from the surface by the group.



Above: A tooth from *Ptychodus*, a shell-crushing shark.
Photo: M. Nelson

Although hundreds of the extinct reptilian fossils known as mosasaurs (often thought of, although wrongly, as marine lizards) have been collected from the chalk, their remains still seem relatively rare for amateur collectors. Over the years while at Fort Hays I and our students found only a few scattered remains of the beasts, mostly isolated teeth, and vertebrae. None were collected on Saturday.

There are other rarer invertebrates and vertebrates in the Chalk that rockhounds usually do not observe when casually looking for specimens. But fossils of flying reptiles such as the famous pterosaurs, long necked plesiosaurs such as *Elasmosaurs*, belemnites (squid-like pens), straight- and coiled-ammonite cephalopods, sparse birds, a few floating crinoids, some barnacles, a few dinosaurs that probably floated into deeper water from the shoreline (bloat and float), and the really strange clams called Rudists that resemble horn corals. However, many rockhounds do not realize that the chalk is



Above: *Squalicorax*, *Cretoxyrhina*, *Cretalamna*
Photos: Mike Everhart and Oceans of Kansas.

However, shell crushing teeth of the shark *Ptychodus* are occasionally found. During the collecting trip on Saturday, I only saw a couple

composed, almost entirely, of microscopic, compacted, carbonate plates derived from single-celled algae. These plates are termed coccolithophores or coccoliths for short. The algae lived near surface waters and upon perishing fell to the bottom by the gazillions and formed an oozy calcareous mud that ultimately hardened into chalk.

An interesting aspect of the Smoky Hill Chalk is that portions of it are silicified and known as Niobraraite or Smoky Hill Jasper. The silica percolated down from volcanic ash deposited in the overlying Ogallala Formation/Group. The silicified chalk was often used by Native Americans on the Great Plains to construct projectile points and scrapers.



Above: Silicified chalk from the Smoky Hill Chalk Member found in a Trego County gravel terrace deposit. *Photo: M. Nelson*

The Niobrara Formation represents a fascinating part of Cretaceous history. As formations go it is not of tremendous length, perhaps around 5 million years from 87 Ma to 82 Ma, but it plays a critical part in our understanding of the Late Cretaceous rocks deposited in the WIS. In rockhound terms, the WIS rocks represent a series of transgressions

and regressions of marine waters probably caused by rapid seafloor spreading (due to the Mid-Cretaceous Superplume of hot molten rock) far to the west. These fluctuations of marine waters in Kansas are somewhat minor compared to the major marine cycle (Zuni Sequence) that allowed water to occupy (transgression) and depart (regression) the WIS. The Zuni Sequence started in the Late Jurassic and lasted until the Early Paleocene (Tertiary). Erle Kauffman, one of the most noted paleontologist/stratigraphers working in the Cretaceous, identified 10 worldwide Cretaceous cycles (T/R) in the Zuni Sequence of which the T/R 5-9 are present in Kansas. Kauffman estimated the earliest of the marine transgressions (T5) in Kansas started ~ 108 Ma with the warm water Kiowa Formation representing a marine transgression from the south; however, the Kiowa is restricted in its occurrence in Kansas. Better known is the overlying T/R 6 (~100 Ma to 88 Ma) composed of the Dakota Formation/Group representing shoreline and nearshore sedimentation followed by the further offshore Graneros Formation. Above the Graneros are the deep-water lime rocks of the Greenhorn and lower Carlile formations. The T/R7 (~88 Ma to 78 Ma) is composed of the upper Carlile, the Niobrara Formation (with maximum transgression in the Fort Hays Member) and regression in the lower part of the Pierre Shale. T/R cycles 8-10 are not exposed in Kansas as the WIS split into two bodies of water (north and south of central South Dakota) with the Kansas waters retreating south back into the Gulf of Mexico. In the latest Cretaceous the WIS was reaching the end of its “life” as the early uplift of the Rocky Mountains was playing havoc with the inland sea. The last remnants of the WIS

persisted until the Paleocene in parts of South Dakota, North Dakota, and adjacent Saskatchewan. The seas of the Zuni Sequence represent the last marine waters to cover the craton of North America.

I wish to thank Jerry and the WG&MS for leading and sponsoring this breath of fresh air and the chance to collect a few fossils. I was unable to stay past mid-afternoon; however, it appears the group was successful and located several partial fish skeletons. Sunday was a cold windy day and most Cretaceous rocks were seen from inside of the vehicle.

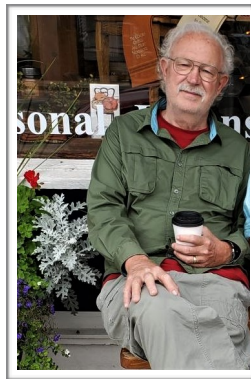


Above: Jerry's best find - a string of fish vertebrae.
Photo: Jerry Honas.

I would encourage fossil pickers interested in Cretaceous rocks of the WIS to purchase (on-line book dealers) a copy of: Kauffman, Erle G., 1977, *Cretaceous facies, faunas, and paleoenvironments across the Western Interior Basin*: The Mountain Geologist, vol. 14, nos. 3 and 4. This journal is a publication of the Rocky Mountain Association of Geologists, Denver.



The best way to get a good group photo of a bunch of bone pickers is from Aaron's drone.



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/minerals.

Classifieds and Announcements



John Emery
Editor

Thanks to our contributors. We encourage everyone to submit articles, photos, illustrations or observations. Don't be shy.

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.

Articles are preferred in MS Word, 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.

Club Officer Vacancy

We have one club officer position vacant. Please consider volunteering for this fun and rewarding (very important!) club position.

Secretary (Club officer)

- Produce General assembly and board meeting minutes for publication in the Pick & Pack newsletter
- Ensure updates are made to the Society constitution and By-laws when resolutions and/or revisions are duly authorized by the membership
- Have name plates and position plates created for officer installation in January
- Preserve all records necessary to conduct the business of the Society
- Receive, read and answer Society communications
- Submit to the Pike Peak Library: Penrose Library: Historical Department, for the purpose of maintaining the Society's history as stated in the constitution

Contact CSMS President John Massie, jmassie1075@gmail.com if interested in the Secretary position.

Call for Speakers

Dr. Richard Sauers, Curator at the Western Museum of Mining and Industry (WMMI) is calling for speakers to visit WMMI and present one of the "Second Tuesday" lectures this year. Currently WMMI is doing taped presentations and posting them to their website for a time. They hope to switch back to live presentations sometime this year.

If you are interested in presenting, please contact the editor:
csmseditor@hotmail.com

2020 RMFMS/AFMS Writing Award Winners

Congratulations to our amazing contributors who cleaned up at the 2020 RMFMS/AFMS Editor's Contest. Here are the awards they brought home to CSMS:

American Federation of Mineralogical Societies (AFMS)

New Newsletter Editors

John Emery; 2nd Place: *CSMS Pick & Pack*

Junior Poetry

Josilyn Teague; 1st Place: *The Crystal*

Karah Teague; 3rd Place: *Oh Colorado Mountains*

Adult Article-Advanced

Mike Nelson; 2nd Place: *Playing with Minerals and Surviving the Pandemic*

Rocky Mountain Federation of Mineralogical Societies (RMFMS)

Photo Collage

John Emery; 1st Place: *CSMS FIELD TRIP | ROCKY MOUNTAIN HIGH CLAIMS 1 & 2*

Junior Poetry

Karah Teague; 1st Place: *Oh Colorado Mountains*

Josilyn Teague; 2nd Place: *The Crystal*

New Newsletter Editor

John Emery; 2nd Place; *CSMS Pick & Pack*

Junior Articles

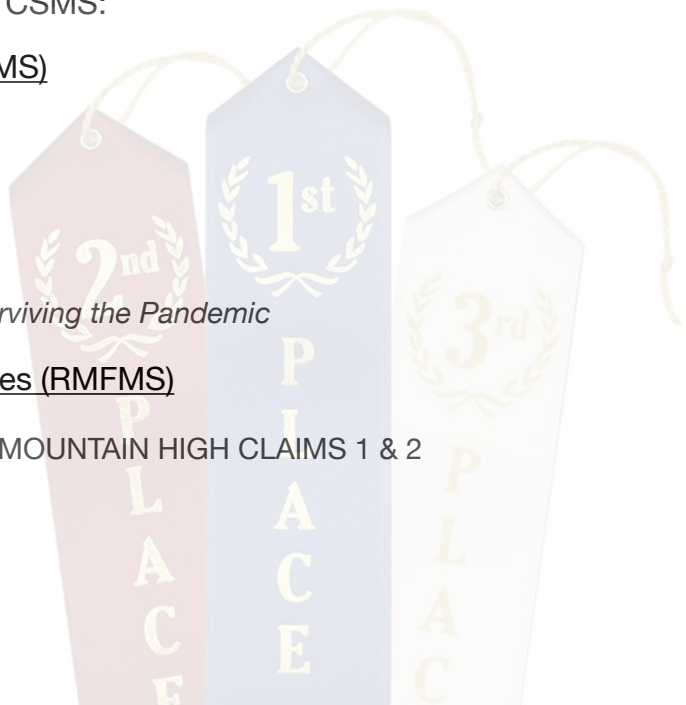
Jonathan Hair; 4th Place: *Impact Gold*

Adult Articles Advanced

Steven Veatch; 5th Place: *Windy Point: A Photographic Essay*

Mike Nelson; 4th Place: *Chasin' the Blues with Elwood, Jake, Bob, Kevin, Jerry & Bill*

Mike Nelson; 2nd Place: *Playing with Minerals and Surviving the Pandemic*



2020 Rock Hounds of the Year



The votes are in! CSMS club members have cast their votes for Rockhound of the Year and Jr. Rock Hound of the Year. Here are the results:

John Emery - Rock Hound of the Year 2020, in recognition of earnest and spirited efforts in the pursuit of science and service to fellow rockhounds and the community in the form of faithful and tenacious tenure on the CSMS Board of Directors as editor, for tireless production of award-winning *Pick & Pack* newsletters, as well as award-winning writing and contributions to the same, and for participation in club field trips and inspiring others to attend field trips. John's efforts were instrumental in affording a sense of togetherness in the club during the global pandemic.

Ben Elick - Jr. Rock Hound of the Year 2020, in recognition of earnest and spirited efforts in the pursuit of science and service to fellow junior rockhounds and the community, in the form of scholarly writings for publication, and for presentation thereof, at Symposiums and General Assemblies; time volunteered at gem and mineral shows; participation in public outreach programs; time volunteered at the Cripple Creek District Museum and the Western Museum of Mining and Industry; participation in club field trips. Ben is a valued and inspiring Pebble Pup.

Field Trip Schedule - CSMS 2021

We're always looking for volunteer trip leaders so we can add a few more field trips to this list. If you have a locality you'd like to visit or are willing to lead a field trip, please contact the field trip coordinator **Mike Webb** at:

mwebbstudent@yahoo.com

Mike Webb

Field Trip Coordinator

Crystal Peak Mining District, Smoky Hawk Mine, Teller Co, CO

Date: Saturday: July 10, 2021

Leader:

Contact:

Florissant, Rocky Mountain High Claims, Teller Co, CO

Date: Saturday : September 11, 2021

Leader: John Emery

Contact: csmseditor@hotmail.com





“Code of Ethics”

A large measure of the enjoyment of our hobby consists of collecting in the field. For that reason, the members are proud to endorse the following:

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 all 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.



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



CSMS is an incorporated nonprofit organization with these goals:

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

Joining the Colorado Springs Mineralogical Society (CSMS):

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

Meetings:

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

Membership Benefits:

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

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

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