| THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960 | Colorado Spring Mineralogical Soc <i>Founded in 193</i> Lazard Cahn Honorary Preside September 201 PICK&PACK Vol 57 Number | gs iety 86 nt 7 r #7 |
|---|---|-------------------------------------|
| CSMS General Assembly | Inside this Issue: | |
| Thursday, September 21, 7:00 PM | CSMS Calendar & Other Events | Pg 2 |
| | Scapolite: A Sort of Forgotten Mineral | Pg 3 |
| This month's speaker is: TBD | Pebble Pups/Garden | |
| Topic: TBD | of the Gods: A Natural Landmark | Pg 7 |
| Please note new meeting site info below | Secretary's Spot | Pg 8 |
| **In case of inclement weather, please call** | Brad's Bench Tips | Pg 9 |
| Mt. Carmel Center of Excellence 719 309-4714 | Classifieds | Pg11 |

New Meeting Sites for September 2017 through September 2018

Thanks to the efforts of Doreen Schmidt and Ernie and Marilynn Hanlon, we have a new home for our General Assembly meetings as well as for the Pebble Pups and the Crystal Group. Starting with the September 21, 2017 General Assembly and Pebble Pups meetings, we will be at the Mt. Carmel Center of Excellence in the Multipurpose Room. The address is:

Mt. Carmel Center of Excellence 530 Communication Circle Colorado Springs, CO 80905 719 309-4714

Directions: From Highway 24/West Cimmarron St., head South on 8th Street 0.4 miles to West Moreno Avenue. Turn right, go 0.3 miles to Communication Circle, turn right for 495 feet. The building is on the left.

Thanks to Ann Proctor for finding a new location for the Board meetings and the Fossil group. Starting with the September 7, 2017, Board meetings will be at the Pikes Peak United Methodist Church. The address is:

Pikes Peak United Methodist Church 2927 W. Pikes Peak Avenue Colorado Springs, CO 80904 719 634-3589

Directions: From I25: Take West Fillmore, Exit 145, 2.3 miles to N 30th St., turn left, go .7 of a mile to W. Pikes Peak Ave, turn left on W. Pikes Peak Ave., church is 50 ft. on your right. Or...take West Uintah, Exit 143, about 2 miles to N

(Continued on page 2)

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

September 2017

CSMS Pick & Pack

CSMS Calendar

September & October 2017

Thu., Sept. 7 & Oct. 5 — Board Meeting, 7p.m., Pikes Peak United Methodist Church
Tue., Sept. 5 & Oct. 3 — Fossil Group, 7p.m., Methodist Church, Jerry Suchan, 303 648-3410
Thu., Sept. 21 & Oct. 19 — Pebble Pups & Jrs, 5:30p.m., Mt. Carmel Ctr., Steve Veatch, 719 748-5010
Thu., Sept. 21 & Oct. 19 — General Assembly, 7p.m., Mt. Carmel Center
Thu., Sept. 28 & Oct. 26 — Crystal Group, 7p.m., Mt. Carmel Center, Kevin Witte, 719 638-7919
Thu., Sept. 28 & Oct. 26 — Faceting Group 7p.m., Medina's home, John Massie, 719 338-4276
Note: The Micromount Group is not meeting at this time. If you are interested in meeting, please call Dave Olsen, 719 495-8720
Appointment Only—Jewelry Group, Bill Arnson, 719 337-8070

Appointment Only—Lapidary Group, Sharon Holte, 719 217-5683

For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms1936.com

Upcoming Events of Interest to CSMS Members

Submitted by Pete Modreski

Sep. 8-16, Colorado Mineral and Fossil Fall Show, Crowne Plaza Hotel - Airport, 15500 E. 40th Ave. Denver, CO.

Sep. 9-17, Denver Coliseum Mineral, Fossil, and Gem Show, Denver Coliseum; see http://www.coliseumshow.com/

Sep. 13-16, Denver Fine Mineral Show, Denver Marriott West, 1717 Denver West Blvd.; see http:// finemineralshow.com/denver/

Sep. 15-17, 50th Annual Denver Gem and Mineral Show, Denver Mart, 451 E 58th Ave., Denver, CO. Gold and Silver is the 2017 show theme. See http://denvershow.org/wp/

Nov. 11-12, 38th annual New Mexico Mineral Symposium, at New Mexico Institute of Mining & Technology, Socorro, NM; see https://geoinfo.nmt.edu/museum/minsymp/home.cfml

Nov. 17-19, Denver Area Mineral Dealers Show, Jefferson County Fairgrounds, Golden CO.

(CONTINUED FROM PAGE 1)

30th St., turn left on N 30th, go .2 of a mile, turn left on W. Pikes Peak, church is 50 feet on your right.

Current group meeting times & places:

| Fossil Group | 1st Tuesday | 7PM | Methodist Church |
|------------------|--------------|--------|-------------------|
| CSMS Board | 1st Thursday | 7PM | Methodist Church |
| Pebble Pups | 3rd Thursday | 5:30PM | Mt. Carmel Center |
| General Assembly | 3rd Thursday | 7PM | Mt. Carmel Center |
| Crystal Group | 4th Thursday | 7PM | Mt. Carmel Center |

(Continued on page 6)

SCAPOLITE: A SORT OF FORGOTTEN MINERAL By Mike Nelson

Why should things be easy to understand? Thomas Pynchon

The Colorado Springs Mineralogical Society is fortunate is having a substantial number of skillful faceters (although my dictionary does not recognize that word). At any rate, the Society has members who can turn a rough piece of glass or gemmy mineral into a wonderful faceted stone worthy of a spectacular mounting in a ring or pendant. I have examined many of their faceted stones since the eye can pick out the internal beauty and symmetry of the faces. However, I am uncertain if any of our members have shown me a cut scapolite.

Scapolite is one of those minerals that sort of rings a bell somewhere in the recesses of your mind; however, you cannot quite pinpoint the location! About the only thing that finally surfaced in my mind came from basic mineralogy and pointed out that scapolite is usually an alteration product of feldspar (which one?), and is a metamorphic mineral (which facies?)! I sort of left it at that point until a few years ago in Tucson when I saw some beautiful faceted gemstones labeled "scapolite." Perhaps my mineralogy factoids were a figment of my imagination for those faceted gems looked nothing like some less-than-spectacular specimens I remembered from class. Perhaps I could forgive my mind since I was a third-year college student trying to reconcile memorizing mineral crystal systems with understanding the bombing of the 16th Street Baptist Church in Birmingham and the assassination of President Kennedy in Dallas. In fact, the assassination of Kennedy is one of those moments in history that persons of my age have imprinted on their minds--- I was heading to Mineralogy class! Why did the crystal systems matter when young girls and presidents were being murdered? I guess the short answer is that I did not want to return to my home town and work in my father's business. So, back to learning about Monoclinic and Hexagonal minerals (and I never really understood the Systems and became a paleontologist). And, scapolite became lost!

Scapolite reappeared in my mind back in 2012 when I was working on an article describing idocrase/vesuvianite. The latter mineral was named by the famous German mineralogist Abraham Gottlob Werner and an informal variety of scapolite is called wererite. At any rate, I then took scapolite from the back recesses and shoved it toward the front of my mind and five years later am finally getting around to describing some specimens that I picked up along the way!

Scapolite is a silicate but is not really an individual mineral—what does that mean? It is a solid solution series between end members marialite (sodium chloride rich) and meionite (calcium carbonate rich): $Na_4Al_3Si_9O_{24}Cl$ **to** $Ca_4A_{16}Si_6O_{24}CO_3$. The sodium (Na) and calcium (Ca) are interchangeable with each other as are the chlorine (Cl) and the carbonate radical (CO₃), therefore leaving an infinite number of chemical compositions. In addition, the calcium may include some strontium while the sodium may include potassium. And SO₄ may substitute for some CO₃ (Evans and others, 1969). It appears that "pure" end members never occur in nature so intermediate compositions are the norm; however, these intermediate members vary considerably in chemical composition and remain unnamed. Members of the solid solution series are essentially indistinguishable (visual) from each other and therefore scapolite is simply used for all.

Scapolite comes in a variety of spectral colors ranging from colorless to white and yellow, purple, blue, red, green, pink, brown, gray, orange and various mixed compositions. However, all varieties have a white streak. The transparency ranges from completely opaque to translucent to completely transparent while the luster ranges from vitreous to dull and pearly. As scapolite weathers to "mica" the luster becomes dull and the diaphaneity becomes opaque. The hardness of ~5.5-6.0 (Mohs) makes gemmy varieties more suitable for pendants rather than rings. Scapolite crystals are Tetragonal and generally come in two distinct forms: short and fat, or long and prismatic. Gemmy varieties are usually prismatic and commonly striated. A couple of my specimens show masses of non-gemmy and opaque crystals. Many times, crystals fluoresce under both short and long wave UV.

(Continued on page 4)

(CONTINUED FROM PAGE 3)

Scapolite is one of the few minerals that have a "square" cross-section that helps in identification (Fig. 1). Compare photos below of a weathered crystal from Monmouth Township, Ontario, Canada, with a crystal diagram from the Goldschmidt atlas and found on www.mindat.org and courtesy of www.smorf.nl.



Fig.1 Cross-sectional view of scapolite crystal, nonterminated, collected from Grenville Terrane near Bancroft, Ontario. Note square shape of crystal and compare with sketch below. Width of crystal ~1.6 cm; length ~2.3 cm.



Fig. 2 Crystal diagram of scapolite from the Goldschmidt Atlas and found on www.mindat.org and courtesy of www.smorf.nl. Note square shape.

I thought scapolite was perhaps a mineral indicative of a specific metamorphic facies (an indicator for specific heat and pressure). However, I have learned the "mineral" occurs in a variety of metamorphic conditions ranging from regionally metamorphosed schists and gneisses to higher temperature and pressure amphibolites and granulites (usually as an alteration of feldspar minerals and producing non-gemmy crystals). In addition, scapolite, at times gemmy, is found in marble produced by contact metamorphism. At other times scapolite in these calc-silicate rocks contain inclusions of clinopyroxene, quartz, titanite and calcite (Ocean Drilling Program). It is also found, at times, in pegmatites associated with contact metamorphism, and basalt ejected from volcanos. I certainly am far from a mineralogist/petrologist but have spent numerous hours reading "lots of articles" concerning scapolite, and trying better to understand the chemistry and genesis. I have somewhat failed in my understanding and concluded that it is a very complex mineral found in several different environments and is quite difficult to identify as to a specific mineral; how-ever, I remember the words of Madeleine L'Engle: *Just because we don't understand doesn't mean that the explanation doesn't exist.*

My collection includes two specimens composed of a non-gemmy mass of opaque crystals collected from around Bancroft, Ontario, Canada (Fig. 3-4), and the single, squat weathered crystal (Fig. 1). The Bancroft area of Ontario, part of the Grenville Province, is thought to have been the margin of North America during the Proterozoic part of the Precambrian (late Precambrian). The rocks are composed of two tectonic elements: 1) high-grade gneisses that were part of the 1.7-1.4 Ga continental margin; and 2) a package of volcanic, plutonic, and sedimentary rocks that are thought to be a collage of arc components accreted at ca. 1.17 Ga (island arc material stuck onto the early continent by plate collision) (Keck Geology Consortium, 2011).



Figs. 3-4. Adjacent two photos are masses of opaque, non-gemmy scapolite crystals. Note nice terminations on crystals with T pointer and nice square shape with SQ pointer. Width FOV top ~4.0 cm, bottom ~4.3 cm. Both specimens have tiny crystals of an amphibole (katnophorite/hornblende??) and ferroan phlogophite on reverse.



(Continued on page 5)

(CONTINUED FROM PAGE 4)

From the Dara-i-Pech pegmatite field, Chapa Dara District, Konar Province, Afghanistan, I have several small gemmy crystals lavender in color (Fig. 5). The crystals are prismatic in nature and have at least one terminated end. The location of the crystal mine is in the northeastern part of the country where lower Paleozoic rocks are intruded by Cretaceous-Tertiary granite and granodiorite intrusions. Due to political instability in Afghanistan, specifics about gemstone localities are difficult to ascertain.



I also have a partial violet crystal from the Marble Occurrence, Morogoro Region, Uluguru Mountains, Tanzania (Fig. 6). As best that I can determine, the area is the site of plate collisions in the latest Precambrian. Metamorphism and thrust faulting left small patches of marble on older rocks (Fritz and others 2009).



scapolite with undetermined inclusions. Maximum width of crystal ~1.1 cm.

And finally, I have a beautiful, free form cab of crystal-clear, gemmy scapolite collected from Espirito Santo, Brazil (along with a second specimen, a nice gemmy, prismatic crystal) (Figs. 7-8). Espirito Santo is a coastal Brazilian state north of Rio de Janeiro and east of the famous mineral-producing state of Minas Gerais. It was difficult to acquire much information about the area except that really gem quality aquamarines are mined from the Mimoso do Sul Mine. The gem bearing rocks are latest Precambrian in age (100 Ga to 54 Ga) and seem related to the Aracuai Orogeny and include a wide variety of metamorphic rocks and igneous intrusions. The Aracuai Orogeny added crustal rock to the local Brazilian Craton. I presume, but remain uncertain, that the gem scapolite came from some of the marble units.



Fig. 7. Gemmy, clear with yellow tint, free-form cab of scapolite. The X is beneath the cab to show the transparent nature of the crystal (thickness 6 mm.). Length ~2.3 cm.

(Continued on page 6)



So, scapolite is a mineral that occurs in a wide variety of metamorphic environments ranging from wide-spread regional metamorphism (mountain building along active plate margins) to small contact metamorphism along igneous intrusions into limestone (producing marble). When it comes to scapolite: *I don't think I'm old enough or experienced enough to give any-one any guidance. All I would like to say is that as long as you're having fun, I think you're doing the right thing* (Sania Mirza).

REFERENCES CITED

Evans, B.W., D.M. Shaw, and D.R. Haughton, 1969, Scapolite stoichiometry: Contributions to Mineralogy and Petrology, v. 24, issue 4.

Fritz, H., V. Tenczer, C. Hauzenberger, E. Wallbrecher and S. Muhongo, 2009, Hot granulite nappes—Tectonic styles and thermal evolution of the Proterozoic belts in East Africa: Tectonophysics, v. 477.

Keck Geology Consortium, 2011, Anatomy of a mid-crustal suture: Geology of the Central Metasedimentary Belt boundary thrust zone, Grenville Province, Ontario: http://www.keckgeology.org/2011-ontario-canada.

Ocean Drilling Program, Unknown date, Macroscopic description of calc-silicate rocks: http://www.odp.tamu.edu/ publications/161_SR/chap_18/c18_3.htm

| (CONTINUED FR | om page 2) | | |
|----------------|--------------|-----|---|
| Faceting Group | 4th Thursday | 7PM | Bertha Medina's home — 2120 Princeton Way, Colorado Springs Directions: From the intersection of Constitution and North Circle, take the first left (west) north of Wasson Park (Patrician Way), go three blocks west and turn right at Princeton Way. The Medina's home is on the left |

Please see page 2 of this newsletter every month for group leader contact numbers and additional information as it becomes available.

PEBBLE PUPS CORNER



CSMS Pebble Pups & Junior Group

The Junior Group & Pebble Pups meet at the Senior Center every third Thursday at 5:30 PM until 6:15 PM or so. We only meet during the academic year, and we include January. So, it is Sept through May. Special announcements and field trips are noted on our blog: http://pebblepups.blogspot.com and through the CSMS website: http://www.csms1936.com

GARDEN OF THE GODS: A NATURAL LANDMARK

By Steven Wade Veatch

The tall spires and monoliths of the Garden of the Gods have been a landmark to countless travelers and explorers. The story of these rocks starts long ago and spans many periods of geologic time. About 65 million years ago, forces in the Earth's crust resulted in the uplift of buried Pikes Peak granite and the bending and warping of overlying sedimentary rocks to a near vertical position. This uplift, called the Laramide Orogeny, formed a major fault, the Rampart Fault, that fractured rocks in the area and caused their movement along this and other faults.



encampment is seen at the base of North Gateway Rock. Antique postcard from the S.W. Veatch collection.

The Rampart Fault divides the Garden of the Gods Park. Rocks on the west side of the park are at an angle of 45 degrees or less. It is here that the rocks of the Fountain Formation, such as Balanced Rock, are on display. To the west

(Continued on page 10)

2017 CSMS Officers

Ernie Hanlon, President

Lisa Kinder, Vice-President

Mark Lemesany, Vice – President

Barbara Middlemist, Secretary

Ann Proctor, Treasurer

Norma Alexander, Membership Secretary

Larry Jones, Editor

Doreen Schmidt, Member-at-Large

Ariel Dickens, Member-at-Large

Jean Luce, Past President

2017 CSMS Chairpersons

Lisa Kinder, Program Coordinator,

Mike Webb, Field Trip Coordinator

TBD, Science Fair Chair

Frank & Ellie Rosenberg, Librarians

TBD, Social Committee Chair

Ann Proctor, Store Keeper

Michael Kosc, Webmaster

Mike Nelson, Federation Representative

Ernie Hanlon, Federation Representative

2017 Satellite Group Chairpersons

Crystal, Kevin Witte

Faceting, John Massie

Fossil, Jerry Suchan

Jewelry, Bill Arnson

Lapidary, Sharon, Holte

Pebble Pups, Steven Veatch

SECRETARY'S SPOT

by Barbara Middlemist

General Meeting Minutes for the Colorado Springs Mineralogical Society — July 20, 2017

The president called the meeting to order at 7:02p.m.

It was decided not to recite the pledge of allegiance since there was no American flag in the room.

There were no guests or new members.

Ernie announced that we need volunteer(s) for hospitality to handle general meeting refreshment setup.

The club will have no choice but to cancel refreshments at general meetings if a volunteer isn't found.

For 2018 the following board positions are vacant:

President

Vice President

Membership Secretary

Member at Large

Ernie announced that the board has passed a resolution to give the serving board free membership for the following year.

The board also passed Dave Olsen's motion to pay our delegates to the RMFS and AFMS annual shows and meetings \$125 each for 2 people. Receipts will need to be submitted.

PROGRAM:

A Concise History of the Cripple Creek Mining District

The Lost Stories

Presented by: Steven Veatch and Ben Elick (Pebble Pup member)

Steven has had the good fortune of having been given access to boxes of documents, postcards, business materials, and miscellaneous materials stored by some of the original gold hunters of the Cripple Creek area. He and the Pebble Pubs have spent many volunteer hours reading and sorting these old papers. The lost stories were compiled from these materials.

Many people came from all over the world to find gold, in most places it was called the Gold Rush. In Colorado, it was referred to as Gold Fever. From sparsely populated meadows from before the Gold Fever took hold, to a population of 50 thousand people in 10 square miles, Cripple Creek grew fast. It grew from loosely held together board shacks to grand brick buildings and stores that sold fancy goods to rival the big cities.

The presentation included many stories, pictures, and old post cards. If you are interested, Ben will present this program at the Denver

(Continued on page 9)

| | CSMS Members Important Notice |
|--|--|
| (CONTINUED FROM PAGE 8) show. He is also presenting at the New Mexico Institute of Mines. The program is also available as a published paper contact Steve | The following resolutions are being submitted for your consideration by Sharon Holte. There will be a vote by the CSMS Membership at the |
| for information. | October General Assembly. |
| There was a break for refreshments and sharing. | I. Change the name of the "Executive Board" |
| Six door prize names were drawn. | to "Board of Directors.". The members of the Board of Directors shall be the following: |
| June minutes were approved. | 1. President |
| There were no officer reports. | 2 Vice President |
| There is nothing new to report on the club claim. | |
| The fossil group will meet Aug. 1 at Ernie Hanlon's home. The pro- gram will be on the Glen Erie Outcrop. Contact Jerry Suchan for further information. | 3. Membership Secretary4. Treasurer |
| Other satellite groups' next meetings will be in September. | 5. Secretary |
| Lapidary equipment is not yet ready for use. It should be soon. | 6. Editor |
| The September General Meeting will be at Mt. Carmel, 530 Com- | 7. Member at Large #1 |
| munication Circle. | 8. Member at Large #2 |
| We hope to see many of you at the Golden Corral on Aug. 24 th starting at 5:30. This is our summer get together which replaces the August general meeting. Feel free to bring mineral treasures to share. | 9. Past President |
| | II. Change all mentions of the "show person" to read "Show Chair" in order to be consistent. |
| Meeting adjourned at 8:29p.m. | III. "When a member dies, the club donates a |

Brad's Bench Tip for September

Just a Drop

Hobby shops and model airplane stores carry small plastic dispenser bottles that are handy for putting a drop of flux, oil, or glue just where you want it. They have a length of small metal tubing coming out the top that lets you squeeze out very small drops.

I use one with a short length of tubing for oil when I'm sawing or when drilling harder metals like steel. Another bottle I found in a plastics store has a longer length of metal tubing on it. Plastics people use them for dispensing fast drying glues to join pieces of acrylic. The long metal tube let's you reach into tight places. Either of these is handy for flux at the soldering station.

> See all Brad's jewelry books at Amazon.com/author/bradfordsmith

book related to the hobby to the library in his/ her honor."

Change the above to add: Future book donations will be housed with the CSMS Library instead of at the public library.



(CONTINUED FROM PAGE 7)

were the Ancestral Rocky Mountains, formed 300 million years ago. Erosion washed down unsorted sand and pebbles of many sizes from the nearby Ancestral Rocky Mountains. By 250 million years ago these mountains were eroded away, leaving behind sediments piled up as gravels in layers that formed the Fountain Formation. This rock unit, up to 4,500 feet thick, has a dark red color from the chemical alteration of iron minerals.



550. BALANCED AND STEAMBOAT ROCKS, GARDEN OF THE GODS.

Rocks of the Fountain Formation are on the west side of the Garden of the Gods park. Balanced Rock is on the left, Steamboat Rock is on the right. These landmark conglomerate rocks reveal the interbedded nature of the Fountain Formation. Antique postcard from the S.W. Veatch collection.

Rocks east of the Rampart fault have been tilted more than 90 degrees from their original, horizontal position, such as the North Gateway Rock, which is formed from ancient sand dunes when the area was much drier and windier 280 million years ago when all the continents were joined into one giant landmass known as Pangaea. Today, geologists call this rock formation the Lyons Sandstone which is composed of uniform sized grains of sand. The Lyons Sandstone was deposited largely in a desert environment, and oxidation of iron to hematite caused the red color.

Archaeologists tell us people have visited the Garden of the Gods for over 3,000 years. Before the advent of settlers and their occupation, the plentiful game, wild plants, and nearby water, made the park a good camping site for the Ute people and other Indian tribes.

Starting in the 1800s, explorers spread the word of the scenic wonders there. The 1850s and 1860s brought gold prospectors through the region and others who stayed and farmed and raised cattle in this area. With the establishment of the railroad in the 1870s, tourists flocked to see the unusual sandstone formations.

In 1879, General William Jackson Palmer, the founder of Colorado Springs, persuaded his friend, Charles Elliot Perkins, to buy land in Garden of the Gods. Perkins paid \$22.00 per acre for 480 acres that surrounded the Gateway Rocks. Perkins, who lived in lowa, was the president of the Chicago, Burlington and Quincy Railroad. He never built on his land in Garden of the Gods and wanted his holdings to become a public park. Perkins died before this could be arranged. In accordance with their father's wishes, Perkins' children offered the land to the City of Colorado Springs with the following restrictions: 1) the park will be free of charge to visitors; 2) the park will be known as Garden of the Gods; 3) no liquors could be made or sold in the park; and 4) no buildings could be built, other than those needed to maintain the park. Late in 1909, the Colorado Springs City Council accepted the land and conditions.

Today, Garden of the Gods Park, with over 1,360 acres, is a national landmark (designated in 1972 by the U.S. Department of the Interior) and a popular destination for tourists from all over the world. We all owe a debt to the Perkins family.



Our Staff... Larry Jones—Editor

We encourage everyone to submit articles, photos, illustrations or observations.

Share your experiences, your new finds, or simply your experience at our last field trip.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed. The DEADLINE for items to be included in the next Pick & Pack, is the **20th 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 should be submitted at resolutions above 200 dpi in TIF, BMP, JPG, or PIC format. Articles are preferred in Word. Editor will correct font.

E-Mail to: <u>csmseditor@hotmail.com</u>

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.

CSMS

T-Shirts, Badges, and Pins are available for sale.

If you celebrated a CSMS anniversary in 2015 or 2016, you are eligible for your one year pin award Please see Storekeeper, Ann Proctor

Classifieds



New Claims Staked Land Status Research Certificate and Map Preparation Mapping Existing Claims Claim Lines Marked

Jeffrey L Otten, Colo. PLS 33199 Divide, CO 719-505-3576 jeffotten@highcountrylandservices.com HighCountryLandServices.com



Postage Here



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 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 p.m., at Mt. Carmel Center of Excellence, 530 Communication Circle, Colorado Springs, CO 80905. (Starting (9/21/2017) <u>Visitors are always welcome</u>.

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, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

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*, a year of learning and enjoyment, plus a lifetime of memories.

Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100, *****Application is on the web site. 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: www.csms1936.com

CSMS is a Member of the following organizatons:

American Federation of Mineralogical Societies (AFMS) www.amfed.org

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

September 2017

CSMS Pick & Pack