

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

FAULTS R US: THE MOVEMENT STORE BY MIKE NELSON, CSMS

A ature has been kind to the State of Colorado and has provided her with examples of many, many types of geological phenomena and land features. The State has exposures of a diverse variety of rocks, fossils of all phyla, and geomorphic features that almost defy description. Because of the large amount of public land in Colorado, virtually all attractions are available for public viewing and examination.

Two of the thought-provoking structural features of intense interest to many people are the fractures or cracks in rocks that geologists classify as: 1) faults; or 2) joints. The latter are the most common of these features and are found in virtually all outcrops. They are fractures or cracks where

no lateral or vertical movements are apparent along the breakage plane (Fig. 1). Joints generally occur in sets and are often the result of rocks being "stretched". What "stretches" the rockstectonic deformation is one common cause. A very distinctive type of joint unrelated to deformation is known as columnar jointing. These fractures occur when igneous lava cools rapidly and causes shrinkage cracks to form, commonly in a polygonal Fig. 1. Vertical joints in the Wingate Sandstone found at Devil's Tower in north- author. eastern Wyoming where the



pattern. A great example is (Jurassic), Colorado National Monument. Photo by

joints are vertical and the columns hexagonal in cross section (Fig. 2). Closer to home, the basalt capping North and South Table Mountain near Golden displays columnar jointing.

Faults are fractures in the rocks where relative movement has occurred



Fig. 2. Columnar jointing in the phonolite porphyry (gray igneous rock with large crystals of white feldspar; related to basalt) at Devils Tower, Wyoming. As the lava cooled, polygonal columns formed and vertical cracks appeared.

along the breakage plane. Very large faults are commonly the cause of earthquakes when eneray is released with sudden slippage along the break.

Faults are classified as either: 1) dip-slip; or 2) strike-slip. The former have relative movement with a vertical component while lateral displacement defines the latter. In addition, movement of the footwall and hanging wall relative to each other further defines dip-slip faults. Early miners chasing ore bodies along a fault See MOVEMENT on pg 4

FEBRUARY 2009 PICK&PACK

Volume 49 Number 2

CSMS is an incorporated nonprofit organization with these doals:

- 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 monthly to assist and promote the above.

Proud Members of:

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

Rocky Mountain Federation of Mineralogical Societies (RMFMS) www.rmfms.org Colorado Federation of Gem & Mineral Societies (CFGMS)

www.coloradorocks.org

Colorado Springs Mineralogical Society Founded in 1936 Lazard Cahn

Honorary President

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Our Staff...

Betty Cain	Editor
Bill Cain	Mailer
CSMS Members	Reporters

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

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

The ability to write well is NOT a requirement. We will fix the grammar while keeping the author's voice, style, and work intact.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed.

DEADLINE for items to be included is the Saturday after the General Assembly every month.

To submit an item, please use the following:

For hardcopy photos or articles, mail to the address below or bring them to the General Assembly 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.

All articles not shown with an author are provided by the Editor.

Mail or email to: bettycain3@comcast.net or Info@csms.us PO Box 2 Colorado Springs, CO 80901 *Phone:* (719) 634-8205

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PRESIDENT-ELECT'S CORNER BY RON YAMIOLKOSKI, CSMS



The installation of officers at the January 15th Annual Banquet marked the beginning of a new year for CSMS. **Drew Malin**, after having served on the Board as Vice President, President, and Immediate Past President, finally had a chance to step down. We thank him for his many years of service and hope that we can do as well. Actually, Drew will not disappear. He will be the Chair of the Lapidary Group and work with me in Co-Chairing the first Annual

Rock Fair at the Western Museum of Mining and Industry on June 20th. **John Casto** has also departed from the Board. John served this last year as our Secretary and has also served as Field Trip Chair and Member-at-Large. We can thank John for his efforts in securing the April Fools Claim and for his assistance in securing the Peridot Claims that CSMS has in Park County. Both Drew and John will be missed from the Board, and we thank them for their service (until next time).

We have two new members on the Board. **Laura Canini** will be serving as Member-at-Large and **Bob Germano** will be serving as our new Secretary. Both of these individuals are part of the group of new members that have joined CSMS in the past year or two. Please welcome them, and get to know them better.

I have been getting a lot of inquires about field trips; I am working on that right now. The first listing of field trips appears in this issue. Although modest, it represents what I hope will be our most active year. The picking of dates is always the most difficult problems for those individuals who lead a field trip. Most of us live more than one life, so our calendars are always changing and multiple demands on our time are occurring. Nevertheless, we will be having field trips (I'm shooting to beat last years offering of 25.). Oh, and by the way, please feel free to contact me if you would like to lead a field trip.

Our Annual Silent Auction is coming up on March 7th. This Silent Auction (actually it can be a bit noisy) will be held at the Embassy Suites. As many of you know, we have two silent auctions each year. The Silent Auction that is held as part of our Annual Show (first weekend in December) benefits our Scholarship Fund. The upcoming Silent Auction will benefit our Groups. In the past it has made possible the purchase of equipment for our groups, materials for our Pebble Pups and Juniors Group, and funds for the filing of the Clubs claims. Those of you that can make specimen donations can either bring them to the Embassy Suites or to our February General Assembly meeting. All of you please try to attend the March Silent Auction and support the CSMS Groups.

Earlier I mentioned the Rock Fair on June 20th. Drew and I need some help to make this successful. We will be looking for some display cases to have inside the museum. These are not for competition but merely for display to those attending the show. We will need some speakers as part of the lecture series that will be provided in the Museum Library during the Fair. We will need some "rock, mineral and fossil experts" to sit at a table and identify specimens brought by fair goers. We will need others to help in a variety of other ways, so please let me or Drew know if you are willing and able to help.

Lastly, thank you for all of your support in the last year. 2008 was a great year for CSMS. Let's make 2009 a better year for each of you and CSMS. Volunteer, participate, and have a great year as a member of CSMS.

NEXT GENERAL ASSEMBLY PROGRAM

he February 19th program will be "*Why are there so many "pretty" copper minerals?*", by **Bob Carnein**, CSMS and Lake George Club member.

Mineralogists recognize some 440 copper minerals—more than 10 percent of all accepted mineral species. Except for bornite and chalcopyrite, the major ores of copper tend to be a bit drab (e.g. chalcocite, enargite, tetrahedrite/tennantite). However, many secondary copper minerals exhibit vivid colors (think of turquoise, malachite, azurite, and dioptase). More than a few mineral enthusiasts got their start after seeing and coveting such eye candy at a major museum or show.

AFMS News

BY JOY BOURNE, AFMS PRESIDENT

t's cold outside—So you might as well read this.

Here is what has been happening since my December/January message. Hope you all enjoyed a joyous holiday season and are looking forward to a very Happy New Year.

I hear by the grapevine (aka-bulletin exchange) that our most recent ad-hoc committee, namely the Webmaster committee, is off and running for their first Webmaster contest. Patterned after the Bulletin Editors contest, each federation will conduct its own contest with 2 judges, and the top 3 winners' entries will be forwarded to the AFMS for the Federation contest. Deadlines for most of the regional contests will be the same as the Editors contest, as will the AFMS contest. The regional awards will be made at the regional Bulletin Editors Awards Breakfast. Similarly, AFMS awards will be presented at the AFMS Editors Breakfast. Phyllis George, Chairman, has done a great job of planning all the details. It sounds like a winner to me. Be sure to encourage your local club's webmaster to submit your web site to your own regional coordinator.

As everybody knows, rockhounds are truly a special breed of people! We attended the SFMS Annual Convention in December and had a wonderful time meeting old friends and making new ones. This happens whenever we visit another club or convention-invariably, the folks one meets are just like your best friends as soon as you shake hands!

In addition to the warm welcome offered to all comers, these special folks are generous-particularly when it comes to offering helpful tips, instructions and information to all who want to learn more about the earth sciences, the mineralogical nature of our planet, or the lapidary skills. They go into schools, scout troops, and shows to talk about rocks (and give away samples to all attendees) and do not accept any pay. Most of our regional federations have special Foundation Funds set up to fund the special programs which are offered to all with emphasis on Junior programs. I have witnessed this phenomenon in my travels, and read about it in the newsletter you send to me.

Until next month . . . Keep warm and read your newsletters.

Pebble Pups get a lesson in preparing a specimen box by Roger Pittman, Asst. Leader, as adults visiting the class take notes.



WMMI HAPPENINGS

Monday Special—senior age 60+ admitted for \$2.50 Mondays through March 2009. Remember, your CSMS membership card gets you in free, anytime.



Friday, Feb 6-Annual Gold Party Fundraiser, 6-9:00pm, \$50 per person. Silent Auction. Whiskey tasting. Hors d'oeuvres & Dessert table. Music by Colorado Conservatory. Please call by Feb 1st for advance reservations; (719) 488-0880.

Thursday, Feb 26-Gold Exhibit Opening Reception. Join us for an evening of light Hors d'oeuvres, music, beer and wine to celebrate the opening of our latest exhibit featuring original documents and letters from the Gould Mining & Milling Company. The Museum will explore the business of mining during the gold rush of 1890s. Strategic Financial Partners will provide information on investing in gold stocks. Call for reservations.

Saturday, Feb 28—"Pikes Peak or Bust" partnership with the Pikes Peak Library District, Monument Branch. Free Event! 1:00-4:30pm. Join us for arts and crafts, meet the burros, portrayal of Aunt Clara Brown, face painting, gold panning and much more. No reservations required. Museum Hours: Monday-Saturday 9:00am-4:00pm.



UPCOMING SHOWS

Feb 12-15 Tucson Gem & Mineral Show, Convention Center, tgms@tgms.org Feb 27-Mar 1

Denver Gem & Mineral Guild, JeffCo Fairgrounds

Mar 20-22

Albuquerque 40th Annual Gem & Mineral Show, Paul Hlava 505-255-5478

Feb 27-29

Fort Collins Gem & Mineral Show, Dave Halliburton, 970-493-6168

Apr 24-26

Denver Spring Mineral & Fossil show, mzexpos@aol.com

April 24-26

56th Annual Wichita Gem & Mineral Show, Wichita, Ks; Paul Hlava 505-255-5478

<u>May 1-3</u>

17th annual McPherson, KS Gem & Mineral Club Rock Sale & Swap, Jim Nutter 620-241-2433

<u>May 16-17</u>

Cheyenne, WY American Legion Post 6, Donna Durako 307-634-4229, bluebarite1@bresnan.net

Upcoming Events

Feb 16-20 CSM Book Sale, Arthur Lake Library, 303-273-3540

<u>Mar 7</u>

CSMS 2009 Silent Auction

<u>Mar 14-15</u>

WIPS Symposium, www.wips ppc.com or symp09@aol.com

Mar 21

Writing Workshop, Florissant Fossil Beds, 719-748-3253

Apr 25

CSMS Holciem Cement Quarry field trip.

May 20-25

Inter-regional Rockhound Rendezvous hosted by NFMS & CFMS; dickpankey@juno.comm; Davis Creek/Lassen Creek for Obsidian. Jun 20

CSMS Rock Fair at WMMI.

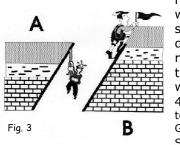
<u>Jul 11</u>

CSMS Peridot Claim field trip. Jul 12

Kemmerer, WY field trip, \$60/pp. White Mnt Gem & Mineral Club; Eunice McQuiston, 928-536-7209

MOVEMENT—CONT'D FROM PG 1

could "walk up" the footwall while needing to "hang off" the hanging wall (Fig. 3). In a normal fault the

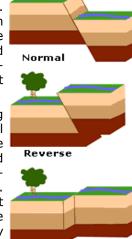


hanging wall has slipped down relative to the footwall (Fig. 4, Courtesy of US Geological Survey).

Normal faults are commonly caused by tensional stress and/or crustal extension-the layers are pulled apart. A small normal fault is easily visible

near the parking lot for Red Rock Canyon Open Space off U.S. 24. One can easily trace the fault plane and notice the directional movement (Fig. 5).

An interesting type of normal faulting is the activity related to horst and graben structures. Perhaps the best example of these structures may be found in the Basin and Range



Strike-slip Fia. 4

Province in Nevada where the entire area was subjected to crustal extension, tensional stress, and broke into numerous mountain ranges (horsts) and down-dropped basins (grabens) Closer to home the Rio (Fia. 6). Grande Rift System extends from near El Paso, TX to Leadville, CO. The Arkansas River Valley north of Salida is composed of a series of grabens with bounding normal faults

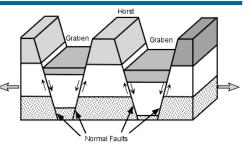


Fig. 5. Small normal fault seen at parking lot for Red Rock Canyon Open Space. Photo by author.

along the mountain ranges. The tectonic forces producing these Colorado structures are related to the Basin and Range activities to the West.

Another type of dip-slip fault is termed a **reverse**

has moved up relative to



fault—the hanging wall Fig. 6. Sketch illustrating horst and graben struc-

the footwall (Fig. 3). Reverse faults are related to compressional stress and are seen at several places in the Garden of the Gods (Fig. 7). These small faults are related to the much larger Ute Pass/Rampart Range Fault Zone, a series of very large reverse faults with perhaps 10,000 feet of displacement (U. S. Geological Survey, 2004).

A special type of reverse fault is termed a thrust fault, essentially a low angled fault, perhaps less than 30 degrees to almost horizontal. Thrust faults can be quite large and may move large volumes of rocks for several miles. Geologists believe that the Cheyenne Mountain Thrust Fault (perhaps a zone) moved portions of the Precambrian Pikes Peak Granite (now Cheyenne Mountain) eastward over the Cretaceous Pierre Shale-a remarkable feat (Rowley and others, 2003). The force for this great movement is probably related to the tectonic plate collision far to the west. In addition, the erosion of sedimentary rocks off the granite as the mountain was being forced upward, and outward, allowed for a rebound effect. Unfortunately, the Cheyenne Moun-

tain Thrust Fault is difficult for the causal geologist to observe.

In Grand County a few miles north of Kremmling and just east of U.S. 40, is Wolford Mountain, a vista observed by hundreds of passing motorists on a daily basis. Very few of these drivers realize

played on the Moun-



the significance of Fig. 7. Reverse fault at North Gateway Rock, Garden of the the geologic activi- Gods. The younger Lyons Formation is thrust over the older ties so vividly dis- Fountain Formation. Photo by author.

tain (Fig.8). It is easy to observe that coniferous trees grow on the upper part of the mountain but are absent on the lower section. However, the demarcation zone between these two zones is the location of the Williams Range Thrust Fault, a large fault that has moved Precambrian rocks westward on top of the Cretaceous rocks. The rock section is "wrong"-older rocks overlie younger rocks (but is explained by the fault)! This is an amazing site and easy to view, so don't miss it on your next trip to Steamboat Springs.

Strike-slip faults are fractures with lateral movement, rather than vertical, along the breakage plain (Fig.4). By far the most famous strike-slip fault in the world is the 800-mile long San Andreas Fault in California where pundits insist that part of western California (Pacific Plate) is sliding away (northwest) from the rest of the state (North American Plate). Sudden movement along strike-slip faults can release tremendous amounts of energy with



Fig. 8. Williams Range Thrust Fault north of Kremmling. Photo by author.

resulting earthquakes and ground shifts. Most strike-slip faults are located along tectonic plate boundaries; and, therefore, Colorado may be devoid of these faults (Matthews and others, 2003).

In summary, "Colorado has thousands of faults throughout the state that range in displacement from inches to miles" (Matthews and others, 2003); some are hidden in the subsurface, while many others are visible to the knowledgeable observer on the surface. When you do get the chance to view a fault, just relax, take it all in, think of the forces involved, and throw on your 1971 Carole King Tapestry album—"I feel the earth move under my feet; I feel the sky tumbling down."

Matthews, V., Lynn, K. K., and Fox, B., 2003, Messages in Stone. Denver: Colorado Geological Survey.

- Rowley, P.D., Himmelreich, J.W., Jr., Kupfer, D.H., and Siddoway, C.S., 2003, Geologic Map of the Cheyenne Mountain Quadrangle, El Paso County, Colorado: Colorado Geological Survey Open-File Report 02-5, scale 1:24,000.
- U. S. Geological Survey, 2004, Online Guide to the Continental Cretaceous-Tertiary Boundary in the Raton Basin, Colorado and New Mexico: <u>http://esp.cr.usgs.gov/info/kt/route_crcs.html</u>

CSMS FIELD TRIPS FOR 2009

BY RON "YAM" YAMIOLKOSKI, CSMS FIELD TRIP CHAIR

A lot of January has been relatively warm and some of you, like me, may have taken the opportunity to get out and do a little rockhounding where conditions allow it. One of the nice things about being a member of CSMS is you get to make some friends that are willing to go out in the middle of winter when the ground is frozen and do some collecting. It sure beats staying inside.

Spring is not far off and with it comes the anticipation of field trips to remote locations, perhaps a hidden pocket, or perhaps being able to lug home that specimen of a lifetime. CSMS field trips are a great way to learn the ropes of collecting, make some new friends and collecting buddies, and to see some of the other parts of the State. Last year we had 25 outings and with the help of some of our members, we will have that or more.

As I write this article, we have five field trips confirmed. On Saturday, April 25th we will be going down to the Holciem Cement Quarry near Florence. Those of you who went last year remember what a great day we had collecting calcite crystals, marcasite (pyrite) balls and some fossils. Joe Lamanna of Holciem will once again be our host, and I will be leading the trip.

I've also nailed down a couple of dates to go visit our Peridot Claims. I've picked July 11^{th} and September 12^{th} . Depending on the weather these dates should hold. The big problem is the

crossing of Badger Creek. If the water is too high, it makes the fording difficult.

John Casto has committed to lead two field trips to the April Fools Claim. He is planning on one trip to be in early June and the other later in the season. For the new members out there, the April Fools Claim contains pegmatites which may have smoky quartz, amazonite, and Goethite. Fluorite and a topaz crystal have been found on the claim as well. You'll need shovels, picks, hammers and chisels for these outings.

I've contacted all of last year's field trip Leaders and some folks who have led trips in the past asking them to volunteer so that the rest of us can benefit from their knowledge and have a good time rockhounding. When you go on a field trip, make sure you thank the field trip Leader and the host if one exists. Their efforts and courtesy make our field trips possible.

One last thing, we will be posting our field trips on the website (www.csms.us) as usual, so check often as we get into the season. I will be sending Allen Tyson, our webmaster, information about each field trip as it is nailed down. Sometimes the lead time will be short because of last minute arrangements, so checking frequently is not a bad idea. Also, make sure that you read the field trip information sheet carefully and comply with the arrangements. If you don't have the safety equipment specified for the Holciem Cement Quarry you will not be able to go into the quarry. If you arrive late at a meeting site, everyone may be gone so arrive early to be on time. If the field trip Information Sheet states four wheel drive, you will need four wheel drive to get to where you are going, so have it or car pool. Following the requirements will ensure that you will have a successful and safer



Junior Group listens to a lesson by Roger Pittman, Asst. Leader, during their group meeting.

FOSSIL GROUP

BY MIKE NELSON, CSMS

he CSMS Fossil Group met on 1/20 with 19 participants and one leader for a grand total of 20 people. Most have attended a past meeting; however, one new person, Ken **Jones**, was present. The ever popular Show & Tell featured reptiles and featured a learning moment with a "study lesson" and description, plus dissecting owl pellets with some good success. I do believe the activity surprised most participants, but all 'dug in' with both hands. The winner most likely was **John Harrington** with two complete skulls of the Plains Pocket Gopher (the CSMS Prez suggested that we could visit his yard and collect live pocket gophers at any time). Bob Landgraf suggested that the group consider this activity as a possibility for a case in the fall Denver Show as their theme is "Fossils".

I am going to write up a home activity for the group as they will be identifying individual bones in the upcoming weeks.

My thanks to the CSMS Board for purchasing the pellets and the copying. A good time was had by all!

ROCKHOUNDING COLORADO IN JANU-ARY

BY BOB GERMANO, CSMS

(See photos on page 8)

ust because it's winter in Colorado doesn't mean you can't rockhound something somewhere. As I'm sure all of you know, Colorado dishes up some unique winter weather, here's an example on the plus side. On 11 Jan 09, Ron "Yam" Yamiolkoski, Bob Germano, and Danny Canini headed out rockhounding for petrified wood south of Denver's County Line Road. We arrive at approximately 11 AM, the sky was blue and the sun warmed the area up quickly to temperatures in the 50's. The ground was virtually clear of snow except for a few isolated patches in shaded areas. Shortly after arriving at the hunting area the three intrepid hunters were making their way uphill (it's always gotta be up hill, doesn't it). It was only a short time until the first of many pieces of petrified wood and lots of leaverite were found. Most of the petrified wood specimens were surface finds, but a few required a wee bit of persuasion to get them out of the ground.

"STATE OF THE CLUB" REPORT

CSMS accomplishments of 2008 as recorded in General Assembly & Board Minutes and Pick&Pack articles

lanuary:

- Wonderful Awards & Officer Installation Banquet held: "Spirit Award" initiated and awarded to Steve Veatch, Awards of Merit presented to Ilona Vogt, Roger Pittman, and Betty Cain
- New CSMS Vests sales begin
- Treasurer's Audit began (first time in several years)
- Kingsley North, Inc. and Martin Zinn Expositions purchased ads in Pick&Pack
- · CSMS receives 2 laptop donations from Raytheon; one was donated to the Senior Center in the name of CSMS
- New digital projector purchased for the Camera Club from the December 2007 Annual Silent Auction proceeds
- What's it all About new membership booklet printed

February:

- CSMS Membership Pin program established
- New CSMS T-Shirts go on sale
- Pebble Pups join AFMS Future Rockhound of America (FRA) program and begin awarding badges
- New faceting wheels purchased for the Senior Center March:
- Science Fair winners chosen; awards increased
- Bill Arnson becomes Jewelry Satellite Group Leader
- Rick Copeland becomes Lapidary Satellite Group Leader
- "Silver Threads: Making Wire Filigree Jewelry" (Glen Pryor), *"Cripple* District: Last of Colorado's Creek Gold Booms" (Richard Wright), "Revised Lapidary Handbook (Lou Severini), "Ghost Towns and Mining Camps of the San Juans" (Dee Rickey), and "American Mineral Treasures" (Vince Johnson) book purchases for the Pikes Peak Library in memoriam of deceased members

April:

- Fossil Group reorganized/reborn by Ron Yamiolkoski, Mike Nelson, Jerry Suchan, and John Harrington
- \$1,000 donated to the Senior Center
- Allen Tyson became our Webmaster
- CSMS financial books received a professional audit and procedural deficiencies were identified
- May:
- Colorado Springs Geology Field Trips series, conducted by Mike Nelson, begin
- First of 25 2008 field trips begin with Fountain Creek Walk
- Very successful New Member Orientation program held at WMMI
- Mike Nelson nominated by AFMS to BLM Committee membership to represent the Rocky Mountain region
- June:
- 45th annual Pikes Peak Gem & Mineral Show held at Phil Long Expo and featured exhibit by the Smithsonian Institute and a phenomenal Kid's Mine (Dun-tada-da!)
- We signed up 45 new members at the Show
- Ray & Eloise Berry won the Founders Trophy
- A secure case was fabricated with partial donations from Transit Mix
- College Scholarship of \$2,500 presented to Michael Mitchell
- CSMS tri-fold brochure created and printed for distribution <u>July</u>:
- Pebble Pup Khya Prewitt received a certificate and package from NASA for Rocks Around the World recognition
- Florissant Fossil Beds National Monument Summer Intern Scholarship presented to Steve Veatch; Bret Buskirk was the recipient

<u>August</u>:

- Special edition of Pick&Pack printed
- Four CSMS peridot claims at Badger Creek, Park County, were filed by Ron Yamiolkoski
- The Annual Picnic and new Tailgate Sale at WMMI was very successful
- \$500 donation presented to WMMI
- Jack Thompson selected to participate in MM6 (museum curators from around the world who meet every 4 years) activities
- "Ask a Geologist" column by Mike Nelson started in monthly Pick&Pack
- Pikes Peak Library provided an inventory of items and documents in their archives

September:

- Junior Program began by Steve Veatch and Diana Biggs for 15 District 11 science club students
- New "diamond" vest back badges were purchased
- Steve Veatch helps the Canon City club establish a Junior's Program modeled on the CSMS program
- First of several field trips to the CSMS Peridot Claims begin
- New lap belts purchased for Lapidary Group
- \$500 provided to purchase Show Silent Auction specimens
- Mike Wheat called meeting at Denver Show to discuss continued interest in a reorganization of defunct Colorado Federation of Mineralogical Societies (CFMS)
- Member Brian Paterson donated a computer workstation and laser printer to CSMS

October:

- Pat & Roger Pitman selected as AFMS Club Rockhounds of the Year (ACROY) for 2008
- American Geological Institute (AGI) and CSMS sponsored Earth Science Week with "No Child Left Inside"
- AFMS 2008 Bulletin Editors Contest winners:
 - 2nd Adult Poetry: Steven Veatch, "Messages in Stone"
 - 3rd Adult Advanced Article: Steven Veatch, "A New Park County Gem Discover: Tarryall Fire Agate"
 - 3rd Large Bulletins: Betty Cain, "Pick&Pack"
 - 4th Special Publications: Betty Cain, "What It's All About"
 - 5th Special Publications: Betty Cain, "Show Committee Performance Booklet"

• A spare microscope was purchased for the Micromount Group <u>November</u>:

- Khya Prewitt selected as first-ever CSMS AFMS Junior AFMS Club Rockhound of the Year (Jr ACROY)
- Julian Canini awarded $\mathbf{1}^{\text{st}}$ place in RMFMS Junior Cash Award contest at the regional show
- Khya Prewitt awarded a RMFMS Special Entry certificate for her display case at the regional show
- CSMS Constitution and By-Laws were updated to include the College Scholarship and Florissant Fossil Beds National Monument Summer Intern Scholarship, change Board quorum to 5, emergency checks to be signed by President and Vice President, Treasurer's books to be presented for audit 15 days following November General Assembly, increase Junior membership dues to \$5/year, and incorporation of 2007 and 2008 Resolutions
- RMFMS 2008 Bulletin Editors Contest winners:
 - 1st Adult Poetry: Steven Veatch, "Messages in Stone"
 - 1st Large Bulletin: Betty Cain, "Pick&Pack"
 - 2nd Special Publications: Betty Cain, "Show committee Performance Booklet"
 - 3rd Special Publications: Betty Cain, "What It's All About"
 - 4th Adult Article: Jay Zimmerman, "The Importance of Molybdenum and It's Impact on Colorado"
 - 5th Adult Article: Terry Beh, "Diggin' Dinos in Glendive"
 - 7th Adult Article: Betty Cain, "Giant Crystal Cave Naica

Penõles"

- 8th Adult Article: Bob Landgraf, "Cracking Boulders"
- 10th Adult Article: Jack Thompson, "Notes on Barite"
- Honorable Mention: Amanda Schaak, "Mount Antero Gem Collecting"
- The Annual Pikes Peak Gem & Mineral Show was moved to December due to facility cost/availability and a spring Rock Fair was added (2 shows per year)
- Fossil Group meeting overflowed their room with 18 attendees.
- New officers were elected for 2009. December:
- A very successful Annual Silent Auction & Bake Sale yielded ~\$1,500.
- New members totaled 118 for 2008!
- Pick&Pack being changed to email distribution for a savings of ~\$1790 per year; 200 hardcopies still being mailed to members without email access.

Editor's Note:

No one person could have made all these things happen; CSMS is **strong** due to the participation of our wonderful member-volunteers and competent Board leadership. No doubt there were many, many other great accomplishments that were not publicly acknowledged—for those the Board says, "thank you!"

The 2009 list has already started; let us know if you have an item that should be reported in the 2009 State of Club Report. Our new Historian Chair, Brenda Hawley, has been tasked to ensure the items are recorded for posterity.

Keep up the awesome work!!

CSMS Award Nomi-

NATIONS

BY BETTY CAIN, CSMS

Do you wonder how someone is chosen for a CSMS/RMFMS/ AFMS award? It's simple—the nominations come from you. Know someone who is deserving of recognition? Write a paragraph or two about their accomplishment(s) and submit it to me; I'll take care of rest. There are many RMFMS & AFMS awards for which we are eligible; the most public are the Bulletin Contest and ACROY programs. Don't forget the nomination for CSMS Awards of Merit (details in the By-Laws). Just do it! It's fun.

CARE AND FEEDING OF ROCK

SAWS BY RICHARD GINDHART, used with permission of the author

S cope: This article is written to provoke thought about the workings of your rock saw and give insight to principals of the operation. We will cover some common problems and possible corrections. I have no illusion that I have all the answers related to the process, but my profession of building and maintenance of machinery for the past 35 years provides some experiences in this field.

Safety: Safety is possibly the most ignored area of hobbies, as it is not regulated as in the manufacturing industries. Being injured at home is just as painfully and disabling as at work, so safety is just as important. The following items should be given attention in our hobbies

 Guards and shielding. Exposed shafts, belts, and pulleys should be properly guarded to prevent your body parts or clothing from being severed or wound up in your work.

• Equipment properly grounded, and electrical wiring in good repair and correctly protected against overloading. **Use a GFCI** (Ground Fault Circuit Interrupter), to prevent electrocution. These devices are relative inexpensive, (\$6-7) and easy to install. A GFCI monitors current flow in an electrical circuit, shutting it down if power is 'leaking' from the device. These monitors can be installed in ungrounded circuits (old wiring), providing ground fault protection.

• Adequate ventilation when grinding, sawing and soldering to prevent inhalation of dust and fumes.

• Personal protection equipment suitable for conditions that exist. Safety glasses, gloves, and dust or fume breathing mask.

• Machinery manufactures' recommendations: Use your shop equipment as spelled out in the owner's manuals. Grinding wheels are particularly dangerous and should be operated only in accordance with manufacture's speed recommendation. *Make sure that grinding wheel guards are in place and adequate to protect you in case that a wheel disintegrates.*

Definitions of Terms:

• Saw: A mechanical device designed to part the material by removing a narrow slot of material from the material.

• Saw blade: The device that performs the cutting action usually made of steel. Modern blade for wood or lapidary use are modified by fixing very hard and tough material of carbide or diamond to the rim to extend blade life.

• Kerf: The slot a saw blade cuts in the material that provides relief for the blade. The set of a saw is a mechanical arrangement that places the cutters as the widest portion of the blade.

• Matrix: The material applied to the rim of a diamond saw blade that contains the cutting diamonds and attaches them to the steel blade. This is usually a nickel alloy metal.



Petrified Wood Hunt in January

Photos by Bob Germano



Yam and Danny display their petrified finds

CSMS CHAIR APPOINT-MENTS FOR 2009

Annual Show = Rick Copeland Camera Club = Roger Pittman Crystal Study = Kerry Burroughs Faceting Group = Dave Wilson Field Trip = Yam Yamiolkoski Fossil Group = Mike Nelson Historian = Brenda Hawley Jewelry Group = Bill Arnson Lapidary Group = Drew Malin Librarians = Ellie & Frank Rosenberg Micromount Group = Phil McCollum Pebble Pups/Juniors = Steven Veatch Project Group = Mike Nelson/Yam Yamiolkoski/Steven Veatch

Publicity = Eva Germano Rock Fair = Drew Malin/Yam Yamiolkoski

Scholarship = Mike Nelson

Science Fair = Mike Nelson/ Yam Yamiolkoski

Webmaster = Allen Tyson

Thanks to all the CSMS members who have volunteered to wear the mantle of leadership in 2009 to help make our club strong. Volunteers are always needed in each activity—the opportunity is yours!

HOW TO MAKE A RIKER MOUNT[®] WALL

DISPLAY BY RAY HILL, GREAT SOUTH GEM & MINERALS, INC.

ere's a neat way to display your Riker Mount boxes in a grouping to make a nice wall display. I recently put 21 of the 8x12 Riker boxes up in my office to show off part of my collection. It was easy to make and easy to put up. You may want to try something like this.

I took one 10' 2x4 and cut four rails that are shaped like a letter "T". I mounted them to the wall, being sure



that I ran brass screws into the studs in the wall and slid my disr W play cases in from the end.

I started by taking the 2x4 and ripping it on my table saw into two pieces that are 1-1/2"x1-1/2". Then I cut to the length I wanted; for mine I cut them to span four studs in the wall with 6" left over at each end, making the rails 60" long. After I cut the four rails 1-1/2" by 1-1/2" by 60", I then ripped them

on the table saw to form them into a letter "T", to make a track that the boxes could slide into.



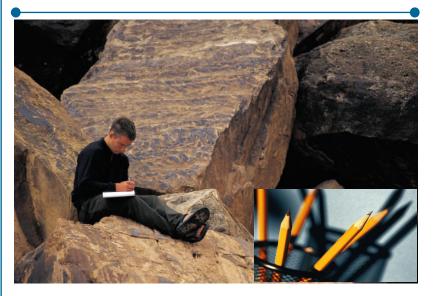
The Riker Mounts I used are ³/₄" deep, so only small specimens will fit in these frames. If you want to try making a display like this and your specimens are larger than ³/₄" you will need to use a 1" frame or even 1-1/2". Then, obviously you will need to make larger rails for your display with larger cut-outs to accommodate the larger frames. You can even put the small white fold up specimen boxes inside your Riker Mounts to hold larger specimens and still put the covers on the boxes.

This wasn't a difficult project. You can do it too.



B.O.L.O. ALERT

Be **o**n **l**ook **o**ut for a large Riker mount of newly knapped arrowheads stolen from the mineral room of Ackley's Rock Shop in January. Please call Ackley's if you see or have seen such an item, possibly for sale. (719) 633-1153.



NATURE AND SCIENCE WRITING WORKSHOP

Date: March 21, 2009 Time: 9:00 am-1:00 pm Location: Florissant Fossil Beds National Monument. Fee: \$3.00 admission to the Florissant Fossil Beds National Monument. Register through the Florissant Fossil Beds by calling 719-748-3253. Instructor: Steven Veatch



N ature and science writing, a popular kind of contemporary literature, offers endless opportunities for craft, creativity, and publication. The Florissant Fossil Beds National Monument is offering this discovery program for anyone wishing to learn how to write clearly and effectively about nature and science. This course introduces you to the fundamentals of nature and science writing and includes the process of completing a single piece of writing. The workshop will include tips on: finding and developing story ideas (hikes, stargazing, fossil hunts, etc.); discovering the difference between a subject and a story; outlining and structuring stories; strategies for opening leads and making transitions between your story and its larger contexts; and discovering the role of the editor in publication.

This is also a perfect class for teachers. With all the state standards and other competencies required of students, writing is an essential skill. This class will be a valuable asset for anyone interested in integrating science and literacy strategies in their classrooms, informal education programs, or for their own use. There will be a practical session on using photography for articles. Formal scientific writing will also be covered. A certificate of completion will be awarded.

What others have said about the workshop . . . "The instructor taught us incredible techniques for investigating the natural world around us, and revealed the most compelling ways to write about our findings to others." "This workshop is an absolute treasure trove of information for anyone interested in writing about science and nature."

RMFMS PRESIDENT'S MESSAGE

BY STAN NOWAK



es, we will have a RMFMS Show and Convention this year. It will be held October 2-3 in Roswell. Yonis (RMFMS VP) and I were working on 3 other locations, but Roswell had to reserve their location prior to the time the other clubs could firm their commitments. We will probably be looking at Farmington, NM, Grand Junction, CO and Durango, CO to host the shows and conventions for the next 3 years and, hopefully, more clubs will be voted on by the House of Delegates meeting in Roswell. I have personally spoken to each of the 3 clubs, and it looks very promising.

Prior to the Roswell Show, I will call each of the clubs to ensure they send delegates or proxies so we don't run into the same problem reaching a quorum that we had last year and in the past. I ask that all clubs read the Articles of Incorporation, By-Laws, and Operating Procedure. There is a lot of info about the Federation's operation in these and may help clear up some of the questions you may have.

RMFMS TREASURER'S CORNER

BY GENE MAGGARD

A nnual reports and dues collections are about done as your treasurer writes this article on January 6. Twentyone organizations still have not reported, about the same as last year. (*Editor's Note: CSMS paid their dues in December.*) If you depend on the RMFSM for club liability insurance, it will lapse in mid-February.

As we get into the new fiscal year, RMFMS finances are sound. There has been no need to increase either dues or insurance payments even though prices of about everything have increased. AFMS dues have increased from 50 cents/member to 75 cents. The RMFMS is absorbing this cost increase this fiscal year, which amounts to about \$1,500. A dues increase may me necessary for 2009-10. We have set the budget for 2008-09, and we should be in good financial shape for the new fiscal year. The budget is not for general distribution, but any member can get a copy from me with the understanding that it is not to be shared with nonmembers.

Here's to a successful 2009 with some great rockhounding. Perhaps we will meet at some great collecting area.

ANIMAL DUNG TURNING TO STONE

BY RAY HILL, GEORGIA GEM & MINERALS, INC.

M any times when I have gone to elementary schools, giving classes on rocks and fossils, I have had kids ask how animal dung, or poop, turns into stone (coprolite). Here I want to explain this geologic wonder in terms that the layman can understand.

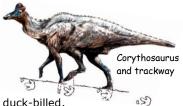
Here in Georgia we still have a large amount of farm land. Georgia is a very large producer of beef, cotton, tobacco, peaches, pecans, soy beans, and dairy products. Out in rural Georgia where I grew up, we saw large pastures with herds of both beef and dairy cattle. Some of these cattle/dairy farms had pastures with many hundreds of acres with hundreds of cows. If you have ever seen a cattle pasture, you know what I'm speaking of.

If you've ever just stopped and watched the cattle in these pastures, you notice that the cattle do two things all day, eat grass and poop. Due to the cattle getting very little nourishment from eating grass and hay, they must consume a huge quantity every day. Eating this



large volume every day causes the cattle to discharge an equal amount of waste. When you see a pasture with cattle, you also see hundreds of piles of poop, what we call cow patties, from the cows. They're everywhere!!

Think back a few million years. Instead of seeing large herds of cows, you'd see large herds of herbivore type dinosaurs like the duck-billed,



Hadrosaur dinosaurs. These dinosaurs are known to have grown to as much as 40' in length. That's big. Now, imagine how much plant matter one of these animals would consume in a days time. And, how much poop or waste they would discharge in a day's time.

Now, just imagine that there is this large valley with hundreds of these huge plant-eating animals roaming about, doing their thing, eating and pooping. Imagine that far off somewhere a volcano erupts, spewing many tons of volcanic ash into the air and travels for hundreds of miles. The volcanic ash with its very fine particles drifts about with the prevailing winds - tons of material. Now stay with me here imagine that this volcanic ash starts raining down in the area where these peaceful plant eaters are; and, over a period of days, this volcanic ash covers the valley where the dinosaurs are grazing. It piles up ten, fifteen, twenty feet thick, completely covering the valley.

Let's forget the dinos for a minute, we're talking poop here. These hundreds, maybe even thousands, of piles of dinosaur dung are completely covered with the fine-grained volcanic ash. They are buried so completely now that they cannot deteriorate or rot away; dung beetles can't cart them off, and the rains can't wash them away. The piles just lay there, buried in this thick layer of volcanic ash.

Beginning almost immediately from the time the piles of dinosaur dung and covered up with the volcanic ash, the minerals in the surrounding soil and ash began to permeate, or penetrate into, the piles of dung. And, over a very long period of time the minerals in the piles of dung are completely replaced with the minerals from the soil and ash. The new minerals, usually silica, are deposited in the dung, displacing the minerals that were there. The original shape and structure of the pile of dung is maintained. And over a long period of time the replaced minerals harden into stone, taking the shape of the pile of dung. This process is known as petrification.

In many areas in Oregon, Washington, Utah, North Dakota and South Dakota, there are large amounts of fossilized dinosaur coprolite, or dung, being found today. It is my guess that, the event that caused such huge amounts of fossilized coprolite to be found in these areas today is an event happening, a long time ago, in these areas as I described above. After many thousands of years, the soil that once covered the piles of dinosaur dung, has weathered away and now leaves the fossilized material lying on the ground. This is exactly the process that produced the petrified forests in northern Arizona.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Febru <i>a</i> ry 2009 —	CSMS CALENDA	R			
1	2 Groundhog Day	3	4	5 7p Board Meeting	6	7 12n Lapidary Group
8	9	10 7p Micromount Group	11	12 5:15p Junior Group 6:30p Pebble Pups 7:30p Gen Assembly	13 7:30p Crystal Group	14 Valentine's Day
15	16 President's Day	17	18	19	20	21 12n Jewelry Group
22	23	24 7:30p Camera Group	25 Ash Wednesday	26 7p Faceting Group	24	28

"Good instincts usually tell you what to do long before your head has figured it out." -Michael Burke

R EFRESHMENTS FO	OR GENERAL ASSEMB	LY MEETINGS
Feb—Board	Mar—Camera	Apr—Crystal
May—Faceting	June—Fossil	Jul—Jewelry
August-Picnic	Sep—Lapidary	Oct-Micro
Nov-Projects	December-All	

	A	Board Meeting : 1st Thursday		
President	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	@ 7:00p. Senior Center, Mike Nelson: 522-1608
VICE PRESIDENT	Mike Nelson	522-1608	csrockguy@yahoo.com	Camera Club: 4th Tuesday @
Secretary	Bob Germano	487-8945	gliders1@hotmail.com	7:30p, Senior Center, Roger Pittman: 683-2603
Treasurer	Ann Proctor	684-9010	annmgmt@msn.com	Crystal Study Group: 200
Managing Editor	Betty Cain	634-8205	bettycain3@comcast.net	Friday @ 7:30p, Senior Center;
Membership chair	Bill Cain	634-8205	billcain4@comcast.net	Kerry Burroughs: 634-4576 Faceting Group: 4th Thursday
Member-at-Large	Laura Canini	260-6007	caninid@comcast.net	@ 7:00p, Senior Center, Dave
Member-at-Large	Charles Webb	392-7214	(none)	Wilson, 635-7891
Past President	Rick Copeland	332-7915	rick@rockymountainwonders.com	Fossil Study Group: 3rd Tues- day @ 7:00p every other month
Field Trip chair	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	Senior Center, Mike Nelson,
HISTORIAN CHAIR	Brenda Hawley	633-5702	bghsprings@hotmail.com	522-1608 Jewelry Group: 3rd Saturday
LIBRARIAN	Frank & Ellie Rosenberg	594-0948	emr80918@yahoo.com	@ 12n, 15610 Alta Plaza Circle, Peyton, <i>Bill Arnson, 749-2328</i>
Publicity Chair	Eva Germano	487-8945	ejtoyou@hotmail.com	Juniors & Pebble Pups: 3rd
SHOW CHAIR	Rick Copeland	332-7915	rick@rockymountainwonders.com	Thursday @ 5:15p & 6:30p
CAMERA GROUP	Roger Pittman	683-2603	prpittman@netzero.com	Senior Center, Steven Veatch, 748-5010
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net	Lapidary Group: 1st Saturday
FACETING GROUP	Dave Wilson	635-7891	dlwilson@pcisys.net	@ Noon, 3085 Rhapsody Drive, Drew Malin, 531-7594
FOSSIL GROUP	Mike Nelson	522-1608	csrockguy@yahoo.com	Micromounts Group: 2nd
JEWELRY GROUP	Bill Arnson	749-2328	ritaarnson@msn.com	Tuesday @ 7:00p, 1514 North
Lapidary Group	Drew Malin	531-7594	advanceone@comcast.net	Hancock, Phil McCollum, acc@frii.com, Moyra Lyne, 442-
JUNIORS & PEBBLE PUPS	Steven Veatch	748-5010	Steven.Veatch@gmail.com	2673
MICROMOUNT GROUP	Phil McCollum		acc@frii.com	Project Group: Meeting time
PROJECTS GROUP	Mike Nelson	522-1608	csrockguy@yahoo.com	TBD, Mike Nelson, Ron "Yam' Yamiolkoski, Steven Veatch
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com	

PICK&PACK

Locations

THE 2008 AWARDS AND 2009 OFFICER INSTALLATION ANNUAL

BANQUET HOSTED BY THE EMBASSY SUITES

BY BOB GERMANO, CSMS; PHOTOS BY BETTY CAIN, CSMS

Our annual banquet kicked off at 6 PM with a social hour full of comradery, friendship, and a wee bit of spirits. Dinner followed at 7 PM. As the delicious dinner portion concluded, our jovial and ever-smiling 2008 President, Rick Copeland, addressed the membership and proceeded with the 2008 Awards presentation.

Awards: Future Rockhound of America (FRA) and Jr. ACROY – Khya Prewitt; ACROY – Pat & Roger Pittman (absent); Awards of Merit: Cripple Creek & Victor Mining Company (accepted by Linda Laverty), Linda Laverty, Drew Malin, Diana Biggs (absent), and D. Wm. "Bill" Cain; Lifetime Achievement – Helena & Art Ackley (to a standing ovation).

As a final act, out-going President Rick thanked the 2008 Offices for all their hard work, support and dedication, and the membership for their continued efforts to make the CSMS a better organization throughout his term. He then introduced CSMS Life Member, Ray Berry, to install the new 2009 CSMS officers.

Mr. Berry called the newly elected officers front and center, addressed each individually by reading the duties and responsibilities of each office/officer as written in the CSMS By-Laws. At the conclusion of the reading, the newly elected officers took the oath of office. Congratulations were exchanged among the new officers, and then Ray turned the podium over to the effervescent 2009 President, Ron "Yam" Yamiolkoski.

Incoming Officers: President—Ron "Yam" Yamiolkoski; Vice President—Mike Nelson; Secretary—Bob Germano; Treasurer—Ann Proctor; Managing Editor—Betty Cain; Membership Secretary—Bill Cain; Members-at-Large—Laura Canini & Charles Webb; Past President—Rick Copeland.

President Yam accepted the traditional president's "big shoes" from Rick and then addressed the membership with his State of the Club address, encapsulating the highlights and overall achievements of the CSMS in 2008, and rolled right along in presenting Membership Pin Awards. A very special membership plaque was presented to Mr. Max Fillmore for achieving his 50th year of CSMS membership. Ray Berry and Dave Wilson paid Max additional tribute by sharing several short episodes of Mr. Fillmore's involvement in the CSMS. Mr. Fillmore received resounding applause.

Special note: As Secretary, I feel it necessary to acknowledge the unique, one of a kind, rockhounding plaque presented to Max. The plaque was conceived by Ron Yamiolkoski and constructed by Bill Cain, surely a tribute to Mr. Fillmore's outstanding achievements and continued support to CSMS for 50 years.

President Yam presented 25-year Lifetime Membership Awards to Jack Null and Charles Webb.

At the conclusion of the membership awards, President Yam turned the podium over to CSMS member Dr. Mike Nelson, Ph.D., who presented a colorful slide show and riveting program entitled "Musk Oxen, Mammoths, and Mountain Sheep: Lake Bonneville, A Window Into the Ice Age." Dr. Nelson fielded several interesting questions from the membership at the conclusion of his presentation and then returned the podium to President Yam where upon he relinquished the podium to Editor Betty Cain for a very special announcement.

She had just been notified by AFMS Past-President Shirley Leeson that our nomination of Prof. Steven Wade Veatch was chosen for the 2008 AFMS/RMFMS Scholarship. This highly sought after scholarship will enable Prof. Veatch to choose two post-graduate students in the Earth Science studies to receive \$2,000 each for two years to be used for expenses in pursuit of their studies (that's \$8 grand total, friends!). What a wonderful accomplishment for CSMS, Prof. Veatch, and the worthy students he will select. Congratulations, Steve!

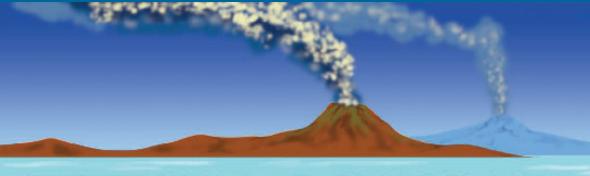
President Yam concluded the 2008 Awards and 2009 Officer Installation Annual Banquet at around 9:30 PM by wishing all a productive rockhounding/fossil-hunting year.







February 2009





Western Interior Paleontological Society's Founders Symposium 2009 March 14-15

Saturday, 8 a.m. to 5 p.m. Reception/Art Exhibit to follow American Mountaineering Center,

Sunday, 8:30 a.m. to 4 p.m.

National Center for Atmospheric Research &

National Oceanic and Atmospheric Administration

Golden, Colorado

Boulder, Colorado

- Day of presentations by leading paleontologists and climate scientists followed by a catered evening reception featuring art & exhibits
- Field trips/lectures at NCAR & NOAA to see climate science in action (optional 2nd day)
- Poster session and fossil displays
- Gallery of natural science illustration
- Student discounts available
- Abstract /program book for all registrants



Learn more and register at: wipspc.com or email symposium@wipspc.com

CASH & TREASURES, TRAVEL CHANNEL

<http://podcasts.travelchannel.com/cash-and-treasures>
Did you miss the latest gem and treasure show? You can see all of them at the above web address.

PICK&PACK



Colorado Springs Mineralogical Society, Post Office Box 2, Colorado Springs, CO 80901

APPLICATION FOR MEMBERSHIP

- 1. All memberships run from January 1 to December 31.
- Any person joining the CSMS as a new member after June 20th shall pay half of the yearly rate. Any person joining as a new member after October 1st receives membership for November and December plus the following year beginning January 1. The partial year membership shall not apply toward the 25 year Lifetime Membership.
- Anyone who has previously been a member MUST pay the full rate each year REGARDLESS of the time of the year they pay their dues.
- Members who have paid their dues for 25 years will be awarded a Lifetime Membership. Lifetime Members receive all of the CSMS benefits and no longer have to pay the annual dues.
- 5. Members in good standing receive the following benefits: 10 issues of the CSMS newsletter, The Pick&Pack, right to participate in all field trips (additional fees may be required on some field trips and members are responsible for all transportation to and from), participation in one or all Satellite Groups (some groups may request additional fees to help cover resource costs), free admission to the Western Museum of Mining and Industry, a year of learning and enjoyment, plus a lifetime of memories.

LAST				RRST		MIDDLE	
SPOUSE							
STREET				CITY			
STATE		ZIP		EMAIL			
PHONE				CELL			
	HAVE YOU PREVIOUSLY BEEN & MEMBE	ROFCSMIS	NO	YES		WHEN	
	YOU ARE PAYING FOR	THE YEAR	2009	Each year the Membership Di <i>members</i> .	Colorado Springs Mineralogic irectory. The directory is dist	al Society put ibuted ONLY	blishes a to CSMS
١	our dues MUST accompany this applic	ation		<u>Check if you do</u>	NOT want vour name & addres	s included	

I can receive the newsletter by email	All Members	All Members	New Members	
	Before Jan 31	After Jan 31	After June 30	Oct 1 – Jan 31
 Junior Membership (12–17 years old) 	\$ 5.00	□\$5.00	\$ 2.50	□\$5.00
Pegular Membership (19 and over)	\$15.00	\$20.00	\$10.00	\$15.00
Family Membership (parents & dependents under 18)	\$25.00	\$30.00	\$15.00	\$25.00

YOUR INTERE	STS	Please check ALL	that a	apply	
CRYSTALS				FACETING	
FOSSILS				SILVERSMITHING	
LAPIDARY				PHOTOGRAPHY	
JEWELRY				METEORS	
MICROMOUNTS				FLUORESCENTS	
VOLUNTEER	CAPA	BILITIES Clubs	are n	nade up of volunteers!	
ARTIST		WRITING		EDITOR	Rematives benefics where we menhan an evolution of an estimation
MAILING		LOCAL SHOWS		YOUTH ACTIVITES	Sometimes knowing where our members are employed or retired from helps us when we are looking for special information or guidance in our
PROGRAMS		FIELD TRIPS		REFRESHMENTS	activities. This information will not be published or accessible except by the CSMS Board of Directors.
PUBLICITY		WEB SITE		LIBRARY	

List any other things you may be willing to do.

I hereby agree to abide by the Constitution and By-Laws of the Colorado Springs Mineralogical Society. CSMS Constitution and By-Laws are evailable at our website: www.csms.us

Signature of Primary Applicant

Application Data

Mail this form and your payment to:

Colorado Springs Mineralogical Society PO Box 2 Colorado Springs, CO 90901

Regular meetings of various groups

Café Scientigique features a talk and discussion on some current science topic; 6-30-8:00 p.m. Tuesday evening once a month (approximately the 3rd Tuesday) at the Wynkoop Brewery (Mercantile Room), corner of 18th & Wynkoop Streets, Denver. No charge; all are welcome. http://cafescicolorado.org

Colorado Scientific Society, monthly meetings with one or two speakers on an earth science topic, 3rd Thursday, 7:00 p.m. American Mountaineering Center, 710 10th St. (NE corner with Washington), Golden, CO. http://www.coloscisoc.org

Denver Mining Club, Informal weekly luncheon meetings with a speaker, every Monday, 11:30-1:00, Country Buffet, 8100 W. Crestline Ave, #A3, Littleton, CO (about 1/2 mile north and east of the intersection of Wadsworth Blvd. & Bowles), tel: 303-933-9923. No charge, but all who attend must purchase a lunch at the restaurant. See web site http://chinaresources.net/den_min.html

Denver Region Exploration Geologists' Society (DREGS) meets monthly on the 2nd Monday, 7:00 p.m. Consolidated Mutual Water Company (lower level), 12700 W. 27th Ave., Lakewood, CO; no charge, all are welcome to the meetings. See http://www.dregs.org/

Rocky Mountain Assoc. of Geologists (RMAG) has monthly luncheon meetings with a speaker at the Marriott City Center, California St. between 17th & 18th Streets, 11:30 a.m. Luncheon cost is \$24; no reservations are needed for the talk only. See http://www.rmag.org/

USGS Colloquium Series, lectures on Thursday, 1:30-2:30 p.m. Foord Lecture Room, Bldg. 20, Denver Federal Center, Lakewood, CO. USGS staff, visitors, and guests are welcome. See http://geology.cr.usgs.gov/ crg/colloquia.htm

Western Interior Paleontology Society (WIPS), meets 7:00 p.m. first Monday of the month, Sep-May, Ricketson Auditorium, Denver Museum of Nature and Science, http://www.wipsppc.com

CLASSIFIEDS . . .

NOTICE—Items listed for sale in the Pick&Pack are displayed only as an informational service to our members and advertisers. CSMS and/or the Pick&Pack do not promote nor warranty any item displayed. The sellers and buyers are responsible for the condition and ownership of any item shown.

CSMS T-Shirts, Badges, and Pins are available for sale at each meeting.

Have You Picked Up Your Membership <u>Award</u> Pin?

If you celebrated a CSMS anniversary in 2007, 2008 or 2009, your year pin award is available from the Membership Secretary, Bill Cain. Last call for 2007 pins.

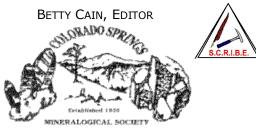




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FEBRUARY 2009

Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are held the third (3rd) Thursday of each month, except January & August, beginning at 7:30 p.m. at the Colorado Springs Senior Center, 1514 North Hancock Blvd., Colorado Springs, CO. Visitors are always welcome.

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: Camera Club, Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, see page 11.

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—\$20* *Deduct \$5 if paid by 1/31/09 Family-\$30*

Juniors-\$5

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Assembly meeting (see page 2 for details of the next meeting) or visit our web site: www.csms.us.