

PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

OUR CONNECTION WITH THE PAST: THE IMPORTANCE OF PRESERVING HISTORICAL RECORDS

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Society builds upon its past. In this time of rapid growth and expansion, land must be recycled and buildings pass through multiple uses in their economic lives. However, without proper records, land owners would not know if their site sits upon a subsiding, or burning, or abandoned coal mine; atop a capped oil and gas well; or at the base of a landslide that wiped out a village a century ago. Records are used as evidence for the movement and settlement of people, the establishment of "dirty" industries such as smelters and foundries, and the excavation of historic mines and quarries. Many forms of public records, such as mining activity; agricultural and industrial censuses; aerial photographs; county road information; tax records; and newspaper accounts can be used to prevent future problems. Historical records become vital for the present and future, and these records can be preserved through accessible and inexpensive technologies. If land developers do not investigate the history of their site, they will not be able to use the property to its maximum potential.



Fig. 1. Historical photos are important records to maintain and preserve. This historic photograph records the discovery of a large fossil palm leaf in a sandstone block at the Coryell Coal mines (Garfield County, CO) in 1907. Photo by H.S. Gale, U.S. Geological Survey Photographic Library Photo No. 285.

Researchers can visit their local historical society archives and archives of counties and cities to find historical records and historical photos (Fig. 1). City, county, state, and national archives yield business records. The U.S. Geological Survey archives include mining projects, while state and national industrial and agricultural records identify census data. All of these nuggets of information lend credence to researcher's theories or gaps in records. Researchers might

access online newspaper archives to seek out official records, or examine the Bureau of Land Management's records to verify prior land use.

In addition to the use of public records and archives to determine the history of land use, these same records can reveal noteworthy land-use activities that reflect the history of science. For example, while researchers were studying the life of Professor Arthur Lakes, the Colorado School of Mines geology professor who discovered the first large dinosaur bones in the American West, they found an article in the *Colorado Springs Gazette* from 1902 about dinosaur tracks located on a

(See *CONNECTIONS*, pg 4)

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CSMS is an incorporated non-profit 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 monthly to assist and promote the above.

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**Our Staff...**

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Bill Cain	<i>Mailer</i>
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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 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.

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PRESIDENT'S CORNER

BY RICK COPELAND, CSMS



Rick Copeland

"I never met a man I didn't like—Will Rogers

With this being my last President's Corner, I want to say what a pleasure it has been serving as CSMS President for 2008. We've accomplished much over the year which I'm sure Betty will document for us in this edition. To hit on some of the highlights, we had a record number of field trips and acquired three peridot claims. We also cleaned up with awards for writing and publishing. And, continue to grow our membership.

At the heart of this is that this is the most friendly bunch of people I have had the pleasure of knowing. There's something special about a Colorado Springs rockhound. They may be extroverted or introverted but always friendly and smiling and more than willing to share their expertise in a particular area of geology or mineralogy. It has been my pleasure to become acquainted with and consider myself a member of such a friendly, out-going, and esteemed group.

In closing, I would like to borrow a phrase from Will Rogers (with the exception of Drew Malin, Jim Bushnell, John Casto, Terry Beh, Bill Arnson, Kerry Burroughs, Nick Morales, Ron "Yam" Yamiolkoski, Mike Nelson, Roger Pittman, and Tom Towles), I have never met a rockhound I didn't like. :)

2009 OFFICERS ELECTED

BY BETTY CAIN, CSMS

The new officers for 2009 were duly elected at the November General Assembly. They are:

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** and **Charles Webb**
 Past President—**Rick Copeland**

CONGRATULATIONS to all, and **THANK YOU** for volunteering to lead CSMS in the coming year.

NEXT GENERAL ASSEMBLY PROGRAM

The December 18th General Assembly will be an abbreviated business meeting and then on to the White Buffalo gift exchange game! Bring your favorite holiday dish for all to share and a wrapped, rockhound-related gift valued at \$5 or more. **WATCH THE FUN HAPPEN as strategies are plotted!**

Steve will present a program for the Juniors and the Pebble Pups as usual. They are also invited to participate in the White Buffalo if accompanied by a parent or guardian.

The rules are simple—when your number is drawn, you may choose an unwrapped gift from the table or exchange your "picking privilege" with someone who has already opened a gift. An item may change owners only three (3) times; the 3rd recipient is the final owner and the item is out of danger of being "stolen".

No fair hiding your treasure if you're owner #1 or #2 ☺



AFMS NEWS

BY JOY BOURNE, AFMS PRES

The new Federation year is underway, and while I have just barely finished wrapping up 2008, I am already reading and hearing reports of activities on current and new projects in several areas of our program of work.

The 2008 Convention packet was sent to AFMS Officers and Directors prior to the scheduling meeting in Texas, and for those of you who did see the booklet, I am pleased to tell you that via mail ballot, we have approved the addition of a new Ad-Hoc committee this year: the Ad-Hoc Webmaster Contest.

The Ad-Hoc Contest/Competitions program under the chairmanship of Ron Carman (SCFMS) reports that the regional federations members of the committee have not been exactly overwhelmed by a large number of requests for ideas and suggestions for most of the program. Club Publications committee has received the most positive comments. Uniform Rules and Competitive Exhibiting has received mixed reviews; Club Rockhound of the Year is a real winner, and the All American Club seems to be falling behind in popularity with our members. Why not sit down and write a note to Ron or your Regional Committee representative to let them know why or why not these contests should be continued (*RMFMS-Richard & Linda Jaeger*).

There will be an increase in AFMS dues from 50¢ to 75¢, a variety of OP changes were approved, a new Webmaster's Contest was approved on a 3-year trial basis, and adoption of Rock & Gem as our official magazine.

Best wishes for a very Happy and Healthy Holiday Season to all of you. I expect to be back in the next issue.

Your newly elected 2009 AFMS officers are: Joy Bourne, President (EFMLS); Emerson Tucker, President-elect (SCFMS); Bob Miller, 1st VP (MWF); Lauren Williams, 2nd VP (NFMS); Ann Monroe, 3rd VP (SFMS); Richard Jaeger, 4th VP (RMFMS); Colleen McGann, 5th VP (CFMS); Pat LaRue, Treasurer (2-yr term). Anne Cook, Secretary, was not up for election this year.

EDUCATIONAL OPPORTUNITY

BY MIKE NELSON, CSMS

Are you interested in learning to read topographic and geologic maps? Perhaps you just need a refresher course in deciphering those squiggly little lines? Would you like to learn how to construct geologic maps? Want to learn about those various colors on maps? If maps appeal to you, then give consideration to signing up for the CSMS Continuing Education course on map interpretation.

The first session, 5:15p-7:15p, **Feb 19**, will allow class members to learn everything "general" about topo maps and begin to recognize landforms. During the second session, 5:15p-7:15p, **March 19**, members will construct slope profiles, topographic profiles, stream gradient profiles, and identify drainage basins. The third session, 5:15p-7:15p, **April 16**, will focus on geologic maps and the construction of geologic cross-sections. A fourth and final class session will be on a Saturday in **April** or **May** where class members will construct a personal geologic map from their examination of rock outcrops "in the field". All supplies, except sharp pencils, a personal curiosity, and a ride to the field will be furnished by the CSMS Fossil Group. But, class members might want to order a geologic map, of their personal living area (instructor will help with this), from the USGS or CGS. No grades awarded! The class project might be described and submitted for our annual show.

You **must sign up** for the course prior to **1 February 09** as class size is limited. Conversely, the class will be canceled if enrollment is small. Questions? Contact Mike at csrockguy@yahoo.com or catch him at a meeting.



UPCOMING SHOWS

Dec 5-7

El Paso Mineral & Gem Society,
6331 Alabama, El Paso, Gem Center@aol.com

Dec 12-14

Flatirons Mineral Club, Boulder County Fairground, 9595 Nelson Rd. (Nelson & Hover), Longmont, CO

Feb 27-Mar 1

Denver Gem & Mineral Guild, JeffCo Fairgrounds

Upcoming Events

9/26—Jan 4

Dinosaurs, Ancient Fossils-New Discoveries, Denver Museum of Nature & Science, <<http://dmns.org/dinosaurs/>>

Dec 6-7

Dave Bunk Minerals 1/2 Price Sale; 1441 W. 46th #8, Denver 303-477-6897

CRYSTAL STUDY GROUP CHRISTMAS LUNCHEON

The Crystal Study Group will meet on December 14th (Sunday) at Giuseppe's Depot for a luncheon. The festivities include optional participation in a Chinese auction. (You'd need to bring a mineral-related gift in the \$5-\$10 range).

Please RSVP to Kerry Burroughs at 634-4576 or kburrou@comcast.net.

The next working meeting will be in January 2009.

MICROMOUNT GROUP HOLIDAY DINNER

The Micromounters will have their Christmas dinner on December 6th (Saturday) at 6:00p, Satellite Hotel, Academy & Airport, in the Landing. There will be a drawing for the Poinsettias.

The next working meeting will be in January 2009.

Participants will be expected to complete all four sessions.

Location is Senior Center, C.D. Smith room.

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ranch in El Paso County, Colorado. According to the article, Lakes discovered the first dinosaur tracks in Cretaceous-aged rocks. El Paso County Assessor's and Treasurer's records and historic maps—in conjunction with Colorado College's rock collection records—proved that a specimen of dinosaur tracks used as landscaping at the college was not "of unknown origin." Because of these records, this valuable historical specimen has now been documented scientifically.

Another important case surfaced in a series of articles Arthur Lakes wrote for the *Colliery Engineer and Metal Miner* during 1895-1896. Although many local Jefferson County residents knew that there was an old placer mining site along U.S. Route 6 eight miles west of Golden, Colorado, they did not know the immensity of the operation until Lakes' illustrated articles revealed the extent of engineering necessary to carry out what must have been a profitable enterprise. Today, Jefferson County Open Space interpreters and developers are working to upgrade the site with proper signage and perhaps will publish a booklet about the historic mining operation. To define boundaries and ownership, the open space property managers must delve into property records and title transfers of every claim at the highly visited site.

The presence of historic metal, gypsum, limestone, and coal mines are often ignored by eager property developers. County planners must investigate such geologic hazards before they ever permit development. County records and maps will usually show the presence of mines, often in some detail. The Colorado Geological Survey maintains a database of abandoned mines, particularly those related to subsidence. The Colorado State Archives maintain a list of all mining companies that were registered in the state. All one has to do is look (usually downstairs). The Colorado School of Mines also maintains a complete historical mine map archive along with accompanying literature.

Recently, during the development of what was thought to be "pristine" ranch land in Jefferson County, a bulldozer operator hit an oil gusher! He had uncapped one of the first oil wells

drilled in 1902 in the Denver basin—long since abandoned and with no record on file in the state oil and gas division. However, the well had been documented both by Arthur Lakes in economic geology articles when it was drilled, as well as in newspapers of the time.

Historical aerial photos (Fig. 2), such as those taken by the USDA Forest Service and the USDA Soil Conservation Service (SCS) in the 1930s and 1940s, are invaluable for interpreting site development. The SCS is in the process of digitizing their county soil



Fig. 2. This is a U.S. Forest Service aerial photograph of Boulder, Colorado taken in 1938. Aerial photographs reveal the changing landscape of Colorado. Changes in the vegetation and ground cover can be traced over time and the growth of towns and cities can be documented. Image BOW-19, University of Colorado Map Library, used with permission.

maps in one the largest digitization projects ever attempted. One landscape historian in Montana used a forgotten and unused set of highway department photographs taken between 1910 and 1965 in the state historical society's archives to document "before and now" changes across the state. Armed with the pictures, he demonstrated forest re-growth, population changes, and effects of grazing on the land during the 20th century.

County road record books, which often list the local landowners as the courses of roads were altered, are a great source of information about land development processes. In Eastern townships of the United States, these records, often hundreds of years old, reveal settlers who moved on to greener pastures despite little other evidence noting their presence.

Archival research crosses state and international boundaries. As Ancestry.com spends millions of dollars to post information online, some types of research are becoming easier. Nothing beats a trip to the local County Clerk and Recorder to find land plats, deeds, right-of-way plats, mining claims, and a variety of other filings. The County Treasurer maintains records of who paid how much in taxes, on which piece of property, and when. All one needs is a name to start a search into records on microfilm or in the original grantee/grantor books in the Clerk and Recorder's office. One researcher from California who was trying to determine the wealth of her research subject was amazed with the

many pages of information she found about him and his business dealings in records housed in the Gilpin County, Colorado, courthouse vault. Most counties have kept records for hundreds of years. One shudders to think of the incredible historic loss should the contents of the vaults like those in Colorado's mining centers—such as Gilpin or Clear Creek Counties—be inundated by flood or destroyed by fire. Although transferring the amassed material in a county vault to digital format seems to be a daunting mission, there are several effective approaches.

El Paso County has a large inventory of historical records. These valuable records are starting to deteriorate and need to be imaged in order to preserve them. The El Paso County Records Center approached this project through a solution one of the coauthors (Magginetti) used in high school. Due to budgetary constraints, the teacher had the students design and build a tabletop 35mm film-capture system for large aerial survey maps maintained by county government. This system worked and was much more cost-effective than a planetary camera, which is usually used for this type of large-format documents. A planetary camera is essentially an overhead camera that takes pictures of large pages. The prices of these cameras start at \$20,000.

A planetary camera exceeded El Paso County's available budget, so the challenge was to build an imaging system for large historical record books and other documents. The County needed something that would take a picture of whatever was placed on the scanner bed and also compensate for any distortion introduced by the book's binding. These historical books ranged in size from

standard paper size (8.5 inches x 11 inches) to old county ledger books (47 inches x 38 inches)—requiring the system to be versatile. After careful study it was determined that a digital camera, with a bit of work, could do basically the same thing as the old 35mm SLR had done in the high school project many years ago.

Today's digital cameras could easily fit the need using a flat-focus lens, (typically a macro lens) if mounted to a suitable stand. Images could be captured as fast as the user could turn the pages to be copied and activate the camera shutter. To that end, the El Paso County Records Center imaging team used a Pentax K200D camera body with a 35mm macro lens, an old Polaroid copystand unit complete with side lights, and basic software to view and capture the digital images.

Instead of creating an image in the camera's memory card, the digital image was captured from the screen and written to the hard drive on a laptop. The digital camera uses a 1600x1200 resolution at high compression which equals to 280 pages per 60 MB. The quality of image is on par with 600-800 dpi at two pages per image (Fig. 3). This system is simple, economical (under \$2,000), and capable of capturing 300 pages an hour without taxing the operator.

Records are available through a wide variety of sources; many of them are freely available to the public. These records are necessary to prevent future serious problems in using real property to its greatest potential. Vital historical records can be preserved at low cost. Utilizing creative solutions, county leaders must begin to plan, schedule, and accomplish long-range historical record preservation. Without accessible archives, society will not be able to study the past in order to build successfully for the future.

Acknowledgements:

This paper was greatly improved by suggestions from Dr. Grace Rich, program director of the RIM program at Chippewa Valley Technical College and R. Ted Hunt, Records Manager at the El Paso County Department of Transportation. Mel Barton provided final editing of the manuscript.

(See *CONNECTIONS*, pg 6)

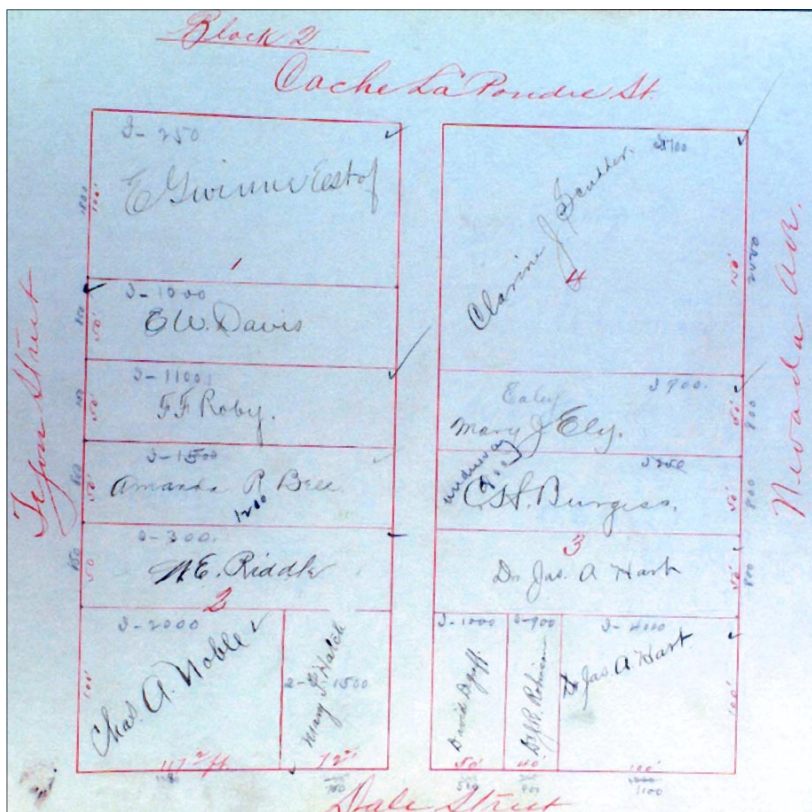


Fig. 3. This page is from a late 1890s land record book and shows ownership and property size information from that time period. Historical documents, such as land records from the El Paso County Assessor's Office, are being digitized to ensure their preservation for research. This digitization project will benefit historians, genealogists, family members, land use planners, and others. Photo by Allan Carlson, El Paso County Assessor's Office.

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ASK A GEOLOGIST

BY MIKE NELSON, CSMS

Marcia writes: On a recent trip to Colorado National Monument, the Ranger was talking about the granite below the red rocks and missing time. Is this the same granite as I see at Pikes Peak? Is time missing here at Pikes Peak?



Marcia, I am happy that you took the nature walk and understood some basic geology in order to pose these questions. What you observed between the granite and the red rocks was an unconformity, or more specifically a nonconformity. Unconformities are an important part of understanding geology, geological time, and stratigraphy. Unconformities are breaks in the geological and rock records indicating a time of erosion and/or non-deposition. In a previous Pick&Pack article (v. 48, no. 11) I tried to show how different unconformities play a critical part in understanding the history of the rocks in the western part of Colorado Springs. Of special interest is the unconformity (nonconformity) so well displayed along Fountain Creek near Manitou Springs and Cave of the Winds.

So, to answer one question—yes, time is missing here in the Pikes Peak region. The Manitou Springs unconformity between Precambrian rocks and the overlying Sawatch Sandstone of Cambrian age records a period of non-deposition and erosion that may approach a half billion years (the Pikes Peak Granite of Precambrian age is approximately 1.05 billion years in age while the Sawatch is about ~.50 billion years [500 million] in age). Geologists know that the sedimentary Sawatch (near shore marine/beach) was deposited on top of the Pikes Peak rather than the granite being intruded into the sandstone. By looking at the contact (Fig. 1), the unconformity, one can observe: 1) how the unconsolidated sand (at the time of deposition) of the Sawatch flowed over the rough spots of the granite before consolidation; 2) there is no indication of sandstone alteration that would result from heat generated by the granite; 3) the granite below the sandstone is deeply weathered; and 4) small faults in the granite do not extend into the overlying sandstone. So, the sandstone is much younger than the granite.

A similar situation exists in rocks of the Grand Canyon of the Colorado River in Arizona. Here the fossiliferous Cambrian Tapeats Sandstone overlies rock units of various Precambrian ages—several hundred thousands of years of geologic time are missing. American paleontologist Charles Walcott had the opportunity in the late 1800's and early 1900's to study the Grand Canyon rocks, as well as the spectacular Cambrian Burgess Shale fauna in Canada. He proposed that an interval of time, the "Lipalian", was missing in the rock record or did not preserve fossils. Walcott was trying to account for the vast amount of time (pre-radiometric dating) that must have elapsed between the Precambrian and the various Cambrian sandstones since the Precambrian rocks were virtually unfossiliferous (according to Walcott) while the Cambrian sandstones contained advanced forms of life such as trilobites and brachiopods. Walcott envisioned a vast worldwide unconformity at the end of the Precambrian, a time when the ancestors of the Cambrian animals were evolving—somewhere!



Fig. 1. The Precambrian (deeply weathered granite)—Cambrian (Sawatch Fm.) nonconformity near Manitou Springs. Note the small faults in the granite terminating at the sandstone, and how the Sawatch sands (at time of deposition) "flowed over" the irregularities in the granite. Photos by author.

Since Walcott's study and conclusions the world of geology has discovered much, not the least of which were fossiliferous rocks that seemed to occupy the time period near the end of the traditional Precambrian but before the Cambrian sandstones (such as the Tapeats and the Sawatch). Not only were rocks of this age located and named in the United States (Eocambrian Period; Precambrian Z), but in Namibia (the original discovery in 1933), Russia (Vendian Period), the Baltic region, Australia (Ediacaran Period), and other places. In addition, soft-bodied fossils of this age have been found in at least 25 worldwide localities (Knoll, 2003). In 2004 the International Union of Geological Sciences formally approved the name Ediacaran Period to represent the terminal part of the Precambrian with age of 630 MY to 542 MY (base of Cambrian). What this means is we can no longer state that Cambrian rocks record the initial appearance of multicellular animals and that the Precambrian is devoid of animal fossils.



Fig. 2. Precambrian metaigneous rocks exposed at Colorado National Monument.

In the United States rocks of Ediacaran age are found along the rifted margins on the edges of the continents, most notably along the California-Nevada state line near Death Valley National Park. It appears that in the latest Precambrian, marine waters were restricted to the continental edge and did not transgress to the site of current Colorado until later in the Cambrian (when the Sawatch was deposited). Therefore, the Pikes Peak Granite had about a half billion years to erode and weather.

To answer a second question, no, the "granite" at Colorado National Monument (CNM) is not the same as the Pikes Peak Granite. The CNM Precam-

brian rocks are a variety of metaigneous rocks (mostly granite, gneiss, and schist) (Fig. 2). Radiometric dates suggest these rocks were metamorphosed between 1.7 to 1.8 billion years ago, and that these metamorphic rocks formed from igneous and sedimentary rocks that were significantly older (U. S. Geological Survey, 2005). The Pikes Peak Granite was emplaced, from molten magma, about 1.05 billion years ago and is restricted to the area around Colorado Springs.

What CNM does have in common with the Pikes Peak area is the great unconformity between the Precambrian rocks and the overlying sedimentary rocks. At CNM the late Triassic Chinle Formation sits nonconformably on the metaigneous rocks (Fig. 3). Applying our understanding of the geology near Manitou Springs to CNM one might think that the Precambrian rocks were exposed to erosion during the entire Paleozoic Era since all of these rocks are missing. However, other evidence and outcrops indicate original deposition of early and mid Paleozoic rocks but that a new player arrived on the scene about 300 million years ago—the Ancestral Rocky Mountains. These mountains, the highest of which were the ranges in Colorado—Frontrangia and Uncompahgria—first formed in the Pennsylvanian Period and lasted until the Triassic (Fig 4). Frontrangia was the source of the Fountain Formation so well exposed at Garden of the Gods, Red Rocks Park, and the Boulder Flatirons. At CNM Uncompahgria was a highland where the early and mid Paleozoic rocks were eroded and where sediments did not accumulate until the range was worn down in the Triassic and the Chinle was deposited on top of the Precambrian.

In summary, Colorado rocks display a prominent unconformity (nonconformity) between igneous Precambrian rocks and younger sedimentary rocks of Paleozoic or Mesozoic age. At Manitou Springs, the nonconformity represents about 500 million years and exposes late Cambrian rocks overlying the Pikes Peak Granite. At CNM, (See *GEOLOGIST*, pg 8)



Fig. 3. The nonconformity at Colorado National Monument. The basal Precambrian rocks (gray-colored) overlain by the Triassic Chinle Fm (reddish slope forming) overlain by the Jurassic Wingate Sandstone (cliff former).

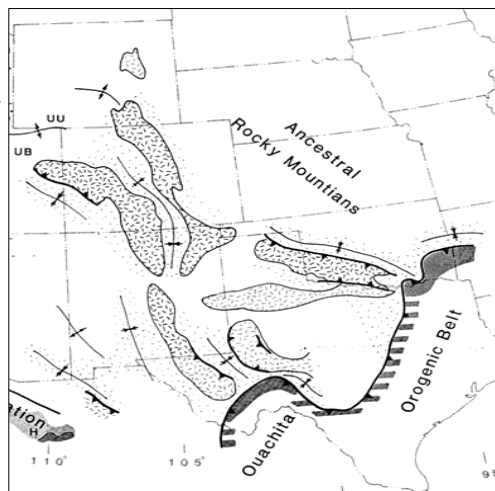


Fig. 4. Sketch of late Paleozoic Ancestral Rockies. The two highest ranges were Frontrangia (~location of modern front range) that supplied eroded debris ultimately consolidated into the Fountain Fm., and Uncompahgria (location of the modern Uncompahgre Uplift). The Ouachita Orogenic Belt is thought to play a critical role in the uplift of these ancient mountains. Courtesy of Burchfiel and others, 2002.

late Cambrian rocks overlying the Pikes Peak Granite. At CNM, (See *GEOLOGIST*, pg 8)

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the nonconformity spans perhaps 1.55 billion years with Triassic rocks overlying the Precambrian. Matthews and others (2003) point out that the "Great Unconformity" is also readily observable in Glenwood Canyon (1.2 billion years missing), Red Rocks Park (1.4 billion years missing), and Black Canyon of the Gunnison (1.5 billion years missing). These great periods of missing time are one of the key points in understanding the evolution of the earth. As the Steve Miller Band sang: *Time keeps on slippin, slippin, slippin, Into the future.*

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Have a question concerning geology? Send it to <csrockguy@yahoo.com> and look for an answer in the Pick&Pack.



Way to go, Julian!

Awards were presented:

- **Khya Prewitt** received a special award from the Rocky Mountain Show for her NASA *Rocks Around the World* display.

- Kaye Thompson presented a RMFMS award and check to **Julian Canini** for his 99% score in the Junior Cash Award entry at the RMFMS Show.

- AFMS National Bulletin Contest WINNERS: Special Publications: 5th—**Betty Cain**; 4th—**Betty Cain**. Adult Articles Advanced: 3rd—

Steve Veatch. Adult Poetry: 2nd—**Steve Veatch**. Large Bulletin: 3rd—**Betty Cain**.

- RMFMS Regional Bulletin Contest WINNERS: Adult Articles: Hon Men—**Amanda Schaak**; 10th—**Jack Thompson**; 8th—**Bob Landgraf**; 7th—**Betty Cain**; 5th—**Terry Beh**; 4th—**Jay Zimmerman**. Adult Poetry: 1st—**Steve Veatch**. Special Publications: 3rd—**Betty Cain**; 2nd—**Betty Cain**. Large Bulletin: 1st—**Betty Cain**.

Needless to say CSMS did outstandingly! I would like to say "great job" to Betty Cain who does an excellent job with the Pick&Pack. This is truly a testament to her outstanding editorial work!

OLD BUSINESS: The 2009 Show will be held on the first weekend in December 2009 at the Phil Long Expo Center. We have signed a 3-year contract in order to lock in the price. The cost was too much to hold the show in June. We do have a back-out clause if the show performs poorly.

We will also be working with the Western Mining Museum of Industry to have an outdoor show at their location in June or July. It will be a smaller show (Rock Fair) over 2 days. We still need help with arrangements, so please contact us if you would like to help out. Several members did not like the idea of moving the show and expressed concerns about financial impacts.

GENERAL ASSEMBLY MINUTES—NOV 20, 2009

BY JOHN CAST, CSMS SECRETARY

Meeting was called to order at 7:30 pm by Rick Copeland. Motion was made to accept minutes as written in Pick&Pack, seconded and passed.

New members and visitors were recognized.

- Treasurer's Report—Ann reports a fund transfer from saving to checking to cover our dues for RMFMS.
- Crystal Group will not be meeting in December. They will be having a luncheon on December 14.
- Jewelry Group—No meeting in November due to Thanksgiving Holiday; December's meeting will be announced in the Pick&Pack.
- Fossil Group—They had a great turn out at last meeting and look forward to the group growing.
- Faceting Group—No Meeting in November.
- Lapidary—Reminder of the Silent Auction December 6th at the Embassy Suite Hotel off Woodman.
- Micromount Group—They will have their Xmas Dinner on December 6th (after the Silent Action), the Landing at the Satellite Hotel, Academy, & Airport. Tuesday January 13th will be the next meeting.
- Pebble Pups - Meeting in two groups one at 5:15p—6:30p for Junior members, 6th grade and under meet 6:45p—7:30pm Thursdays before the General Assembly.

NEW BUSINESS: The second reading of the By-Laws revisions was performed by Rick, a motion of acceptance was received, seconded, and passed by the General Assembly.

Betty reported that other clubs are happy to break even and are ecstatic about a \$2000 profit. Vendors will need to be contacted, and we need a Vendor Chairman to start contacting them for next year's shows.

The 2009 Board of Directors election was successfully held.

The meeting adjourned at 8:07p and refreshments were served.

Steve Veatch's presentation, "The Amazing Story of Guffey", on the Lake George Club project on defining a project, completing research, and producing an outstanding product was given. For those who missed the show, the Lake George club worked on the natural, physical, and human history of the Guffey area. A large number of club members participated in the project as many different skills were needed for completion. The end products being a written report, visual presentations, and a refereed abstract in a scientific journal. After his presentation, several CSMS members commented, "We could do that sort of a project", and "When can we start doing something".

Stay tuned for further information about a CSMS project!

EDITOR'S NOTE: The RMFMS rules state that a 1st place winner cannot enter the contest for 3 years; no Pick&Pack nor poems by Steve in the 2009 contest! That doesn't mean that we won't be entering articles, book reports, travelogues, historical commentaries, original shop hints, jokes, cartoons, puzzles, quizzes, and sketches/drawings from our members! Watch for them in the 2009 Contest.



MEET THE 2009 BOARD

VICE PRESIDENT:

Mike Nelson is a native of the high plains in central Kansas but retired to Colorado Springs from La Crosse, WI in 2006. He moved here to enjoy the high mountains, days of sunshine, and minor amounts of snow. He has always been interested in collecting rocks, minerals, and fossils and, therefore, chose geology as a career. He heads the CSMS Fossil Group, was a Member-at-Large in 2008, and enjoys hiking, fishing, camping, collecting, and writing. He may be contact at csrockguy@yahoo.com.

SECRETARY:

Bob Germano was born and reared in Albany, NY. He attended Hudson Valley Community College at Troy, NY; upon completion, he joined and spent 30 years in the USAF. He had a very diversified career being stationed in Colorado (twice), North Carolina, Alaska, Texas, Oregon, Hawaii, Thailand, New Zealand, Australia, Korea, Japan, Philippines, Germany, and England. A few unique positions held were: tracked satellites via a Baker-Nunn Camera system, assigned to Cheyenne Mountain Logistic, assigned as a liaison to the FAA to oversee the construction and initial operation of a Joint Senior Site Radar System and taught Quality Management courses throughout the pacific theater for the Air Intelligence Agency. He retired as a Chief Master Sergeant in 1996. In 2001 he moved to Colorado Springs from Phoenix, AZ. He enjoys the mountains, Colorado's mild temps, 300 days a year of sunshine, and unlimited rocks to collect. A lingering interest and desire to collect geodes finally surfaced and quickly propelled him into rockhounding. He enjoys hiking, camping, scuba diving, ski-

ing, ATVing, computers, flying radio-controlled aircraft, and rockhounding. He may be contacted at Gliders1@hotmail.com.

MANAGING EDITOR:

Betty Cain is a US Navy Vietnam veteran (first female Radioman instructor and USN Woman of the Year) who came to Colorado for the very first time in 1999; it was so beautiful she knew why her hubby, Bill, always wanted to come back. They spent most of their lives in the big state of Texas but gladly traded the humidity, hurricanes, and mosquitoes for the rugged mountains and snowy winters. She is an Engineering Planner for Raytheon and, due to a sun allergy, prefers the computer to field trips.

"I provide my skills to CSMS in a form that most people run from like the plague—being the editor. CSMS has a rich history of talented and dedicated newsletter editors; I try very hard to continue that reputation." Actually, she wasn't even a member of the club when she volunteered to put her first edition together. Thanks, Drew!© And, as they say, the rest is history. The CSMS 'family' keeps life interesting; our members are some of the best people, and there is so much to learn and do. Having a servants heart, she sometimes has to sit on her hands when a plea goes out for volunteers. Betty's email is bettycain3@comcast.net.


MEMBERSHIP SECRETARY:

Bill Cain is semi-retired and also a US Navy Vietnam veteran who took over the monumental task of Membership Secretary by default when he volunteered to be the editor, thanks again to Drew! He spent the first year as co-editor of the Pick&Pack with Betty as the layout editor but quickly realized both jobs were huge, demanding a lot of attention to 'do it right'. His specimen collections began at an early age and flourished when he moved to Colorado Springs. One visit to Ackley's Rock Shop put him in touch with CSMS, and he was hooked (line and sinker). The family rockhounding tradition continues with their granddaughter, Khya Prewitt. Bill, Khya, and Penny the real rockhound do the collecting in the family. His email is billcain4@comcast.net.



Continued in the next Pick&Pack edition


TIPS & TIDBITS . . .


 **Safety** — Always use plastic containers, rubber or nitrile gloves, eye protection, good ventilation, and great care when handling these products.

Household products that can be used as rock cleaners:

- Zud or Barkeeper's Friend cleansers (contains oxalic acid) - Warm or hot solutions will remove iron stains and are helpful with clay deposits. These cleaners can be used with a toothbrush on sturdy surfaces.
- Toilet cleaner (the hydrochloric acid type) - Dissolves calcite rapidly. *After treating anything with an acid, rinse very carefully and soak in ample fresh or distilled water for a while to leach out any acid remaining in crystal seams and fractures.* You can then follow up with a final soak in diluted Windex to neutralize remaining traces of acid.
- Lime Away (dilute hydrochloric acid) - Dissolves calcite more slowly. Rinse as you would for other acid treatments (see above).
- Calgon—Dissolve this powdered water softener in water. Use for clay removal.
- Vinegar (acetic acid), soda water, colas (carbonic and phosphoric acids) - Will slowly etch out very delicate fossils in limestone. Rinse as you would for other acids (see above).
- Iron Out (iron stain and clay remover) - Mix with warm water and use with good ventilation. It will lose strength if stored. Rinse with plain water.
- Bleach—Diluted solutions of bleach can remove organic deposits and disinfect minerals collected in areas used by livestock. Rinse with plain water. *(I wouldn't suggest being a 'rock lick' in these collecting areas!).*
- Hydrogen peroxide—Use to remove manganese stains. Rinse with plain water.
- Citric acid—Use to remove manganese stains. Rinse as above for acids.
- Windex (with ammonia) - A good clay deposit remover and final surface cleanup. Works well in ultrasonic cleaners. Rinse with plain water.
- Distilled water—use to clean sensitive specimens and as a final soak after acid treatment.

Source: T-Town Rockhound 11/08.

 **Removing Thin Coatings** — On moderately hard minerals—use toothpaste (a feldspar abrasive) and a toothbrush. On hard minerals—use toothbrush with pumice powder and water. On calcite (including bruised places) - quickly dip in vinegar or Lime Away and rinse thoroughly. Repeat. Soak in plain water afterwards to leach any acid from cracks. Source: T-Town Rockhound 11/08.

 **Cleaning Tools** — Toothpicks, seam ripper, bamboo sticks, sewing needles in a pin vise, old dental tools, old toothbrushes, periodontal brushes, canned air, Exacto knife, single edge razor blades, cheap small stiff bristle brushes. Source: The Franklin County Rockhoulder, 5/07, via Strata Gem, 6-7/08, via T-Town Rockhound 11/08.



YOUNG MINERAL ARTISTS

Dear Mineral Collecting Enthusiasts,

We have just posted the beginning of a Gallery of Mineral Art by young mineral artists (under 18 years of age). Though still a relatively small gallery, we hope it will grow considerably in the coming months. If you know of a young mineral artist that has something to contribute, please contact me or ask him/her to contact me. Artwork can be submitted by email or snail mail, whichever is best for the artist and his/her family.

Please go to our home page at <www.diamonddanpublications.net>. At the bottom of the page is a link to the gallery. Enjoy! There are some terrific young people out there who have a lot of talent and knowledge to share.

Best wishes to all,

Darryl Powell

Diamond Dan Publications
PO Box 143
Manchester, NY 14504
(585) 278-3047
diamonddan@rochester.rr.com
Mini Miners Monthly

RMFMS—FROM THE TREASURER

FROM THE RMFMS NEWSLETTER, DEC 08



The old fiscal year has ended and a new one begun. Financially, the federation is in good shape, with about \$4,000 more coming in than going out in 07-08. Interest income on our savings was very good, accounting for the surplus and covering some operating expenses. With interest rates headed way down, we will not receive nearly as much interest income in 08-09, but budget projections show that we will do better than break even financially. Financial details are never published in the newsletter, but financial statements were handed out to convention delegates in Tulsa in November. If your club was unable to send a delegate but you would like to see a financial summary, please let me know, and I will get you one.

DUES—Did your club receive the 08/08 dues letter? The dues are due December 15.

Gene Maggard, Treasurer

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
DECEMBER 2008 — CSMS CALENDAR						
	1	2	3	4 7p Board Meeting	5	6 10a-1p Silent Auction 6p Micromount Party
7	8	9	10	11	12	13
14 Crystal Study Group Holiday Luncheon	15	16	17	18 5:15p Junior Group 6:30p Pebble Pups 7:30p General Assembly Meeting	19	20 12n Jewelry Group
21	22 First Day of Hanukkah 	23 7:30p Camera Group	24	25 CHRISTMAS 	26 Kwanzaa Begins 	27
28	29 Islamic New Year 	30	31	1/1 NEW YEAR 	1/2	1/3

"Christmas waves a magic wand over this world, and behold, everything is softer and more beautiful." - Norman Vincent Peale

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS

Dec—**Everyone**

PRESIDENT	Rick Copeland	332-7915	rick@rockymountainwonders.com
VICE PRESIDENT	Ron Yamiolkoski	488-5526	theyams@q.com
SECRETARY	John Casto	329-0912	jcasto@fvs.edu
TREASURER	Ann Proctor	684-9010	annmgmt@msn.com
MANAGING EDITOR	Betty Cain	634-8205	bettycain3@comcast.net
MEMBER-AT-LARGE	Mike Nelson	522-1608	csrockguy@yahoo.com
MEMBER-AT-LARGE	Charles Webb	392-7214	
PAST PRESIDENT	Drew Malin	531-7594	advanceone@comcast.net
MEMBERSHIP DIRECTOR	Bill Cain	634-8205	billcain4@comcast.net
FIELD TRIP DIRECTOR	Ron Yamiolkoski	488-5526	theyams@q.com
SHOW CHAIRPERSON	Drew Malin	531-7594	advanceone@comcast.net
LIBRARIAN	Sarah Udell	237-7985	sarahudell@hotmail.com
CAMERA CLUB	Roger Pittman	683-2603	rpittman@netzero.com
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net
FACETING GROUP	Dave Wilson	635-7891	dlwilson@pcsisys.net
FOSSIL GROUP	Mike Nelson	522-1608	csrockguy@yahoo.com
JEWELRY GROUP	Bill Arnson	749-2328	ritaarnson@msn.com
LAPIDARY GROUP	Rick Copeland	322-6915	Rick@rockymountainwonders.com
MICROMOUNT GROUP	Phil McCollum		acc@friei.com
PEBBLE PUPS	Steven Veatch	748-5010	Steven.Veatch@gmail.com
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com

Locations

Board Meeting: 1st Thursday @ 7:00p. Senior Center, Ron Yamiolkoski, 488-5526

Camera Club: 4th Tuesday @ 7:30p, Senior Center, Roger Pittman: 683-2603

Crystal Study Group: 2nd Friday @ 7:30p, Senior Center; Kerry Burroughs: 634-4576

Faceting Group: 4th Thursday @ 7:00p, Senior Center, Dave Wilson, 635-7891

Fossil Study Group: 3rd Tuesday @ 7:00p every other month, Senior Center, Mike Nelson, 522-1608

Jewelry Group: 3rd Saturday @ 12n, 15610 Alta Plaza Circle, Peyton, Bill Arnson, 749-2328

Lapidary Group: 1st Saturday @ Noon, 6608 Gambol Quail Dr E; Rick Copeland 322-7915

Micromounts Group: 2nd Tuesday @ 7:00p, 1514 North Hancock, Phil McCollum, acc@friei.com, Moyra Lyne, 442-2673

Juniors & Pebble Pups: 3rd Thursday @ 5:15p & 6:30p, Senior Center, Steven Veatch, 748-5010



Colorado Springs Mineralogical Society

Silent Auction & Bake Sale

Saturday

December 6, 2008

10:00 am to 1:00 pm

**Great gift ideas at
Silent Auction Prices!!**

Embassy Suites
7290 Commerce Center Dr.
Colorado Springs
(719) 599-9100

- ♦ New items every 20 minutes
- ♦ CSMS Member Vendor Tables
- ♦ Sweets to please any palate
- ♦ Proceeds to benefit Fossil Group & new Crystal Group claim

Bargains

Fun!

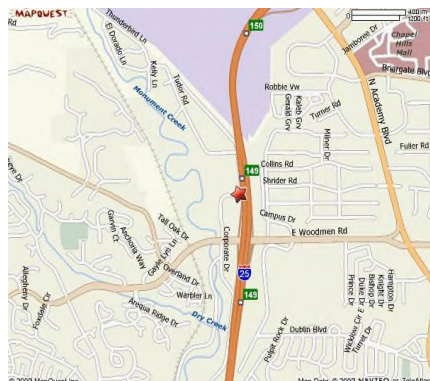
Baked Goods



Colorado Springs Mineralogical Society

PO Box 2
Colorado Springs,
CO 80901
Www.csms.us
Info@csms.us

Contact:
Linda Laverty
(719) 964-6222
chilipepper24@juno.com





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

APPLICATION FOR MEMBERSHIP

- All memberships run from January 1 to December 31.
- Any person joining the CSMS as a new member after June 30th 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.
- 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	<input type="text"/>	FIRST	<input type="text"/>	MIDDLE	<input type="text"/>
SPOUSE	<input type="text"/>				
STREET	<input type="text"/>				
STATE	<input type="text"/>	ZIP	<input type="text"/>		
PHONE	<input type="text"/>				
CITY		<input type="text"/>			
EMAIL		<input type="text"/>			
CELL		<input type="text"/>			
HAVE YOU PREVIOUSLY BEEN A MEMBER OF CSMS		NO <input type="checkbox"/>		YES <input type="checkbox"/>	
YOU ARE PAYING FOR THE YEAR		<input type="text" value="2009"/>		WHEN <input type="text"/>	
Your dues MUST accompany this application		<input type="checkbox"/>		<u>Check if you do NOT want your name & address included</u>	

Each year the Colorado Springs Mineralogical Society publishes a Membership Directory. The directory is distributed **ONLY** to CSMS members.

	All Members Before Jan 31	All Members After Jan 31	New Members	
			After June 30	Oct 1 – Jan 31
<input type="checkbox"/> Junior Membership (12 – 17 years old)	<input type="checkbox"/> \$ 5.00	<input type="checkbox"/> \$ 5.00	<input type="checkbox"/> \$ 2.50	<input type="checkbox"/> \$ 5.00
<input type="checkbox"/> Regular Membership (18 and over)	<input type="checkbox"/> \$15.00	<input type="checkbox"/> \$20.00	<input type="checkbox"/> \$10.00	<input type="checkbox"/> \$15.00
<input type="checkbox"/> Family Membership (parents & dependents under 18)	<input type="checkbox"/> \$25.00	<input type="checkbox"/> \$30.00	<input type="checkbox"/> \$15.00	<input type="checkbox"/> \$25.00

YOUR INTERESTS <i>Please check ALL that apply</i>			
CRYSTALS <input type="checkbox"/>	FOSSILS <input type="checkbox"/>	LAPIDARY <input type="checkbox"/>	JEWELRY <input type="checkbox"/>
MICROMOUNTS <input type="checkbox"/>	CRYSTALS <input type="checkbox"/>	FOSSILS <input type="checkbox"/>	LAPIDARY <input type="checkbox"/>
VOLUNTEER CAPABILITIES <i>Clubs are made up of volunteers!</i>			
ARTIST <input type="checkbox"/>	WRITING <input type="checkbox"/>	EDITOR <input type="checkbox"/>	MAILING <input type="checkbox"/>
LOCAL SHOWS <input type="checkbox"/>	YOUTH ACTIVITIES <input type="checkbox"/>	PROGRAMS <input type="checkbox"/>	FIELD TRIPS <input type="checkbox"/>
PUBLICITY <input type="checkbox"/>	WEB SITE <input type="checkbox"/>	LIBRARY <input type="checkbox"/>	REFRESHMENTS <input type="checkbox"/>
Sometimes knowing where our members are employed or retired from helps us when we are looking for special information or guidance in our activities. This information will not be published or accessible except by the CSMS Board of Directors.			
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 available at our website: www.csms.us

Signature of Primary Applicant _____

Application Date _____

Mail this form and your payment to:

Colorado Springs Mineralogical Society
 PO Box 2
 Colorado Springs, CO 80901



Colorado Springs Mineralogical Society
2009 Awards Banquet & Officer Installation Registration
January 15, 2009

Embassy Suites
7290 Commerce Center Drive
Colorado Springs, CO

Cocktails—6 pm Dinner—7 pm Program—8 pm
(Open Bar)

Name(s) _____

Phone: _____

Number of Dinners: _____

Number of Vegetarian Dinners: _____

Total Number of Dinners: _____

x \$18 ea

Total Enclosed: _____

MENU:

Tossed Greens with Raspberry Vinaigrette & Ranch Dressing

Chicken Breast topped with Teriyaki Sauce

Served with Rice Pilaf and a Seasonal Vegetable Medley

Dinner Rolls & Butter

Chef's Choice Dessert

Coffee or Iced Tea

Send check payable to **CSMS** along with this registration by 1/9/09 to:

CSMS
PO Box 2
Colorado Springs, CO **80901**

Please note corrected zip code

Regular meetings of various groups

Café Scientifique 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://cafescolorado.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://china-resources.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 Award Pin?

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

Dues R Due

WANTED

Specimen display case for home use
Contact:
debbybeneze@msn.com or
719-429-4004

NEW CSMS "DIAMOND" BACK BADGES

A new supply of the badges used on the back of our vests has been arrived. We can now proceed with vest manufacturing. If you're interested in purchasing a CSMS vest, please contact **Linda Laverty**, chilipeper24@juno.com.

(719) 633-1153

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Denver-Fall Mineral & Fossil Show

 Thank you for advertising in the CSMS Pick&Pack

Holiday Inn-Denver Central (I-25 & I-70)
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BETTY CAIN, EDITOR



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December 2008



Address Service Requested

Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are the third (3rd) Thursday of each month, except 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 12.

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*

Family—\$30*

Juniors—\$5

*Deduct \$5 if paid by 1/31/09

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.