

PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

GIANT CRYSTAL CAVE—NAICA PEÑOLES

By BETTY CAIN

I've seen the pictures and thought they were too fantastic to be real, as I'm sure you have too. After spending a little time on the web running down links, I'm convinced that this is not a fabrication from an over-active imagination and these truly are the largest crystals on Earth! What follows is information gleaned from several web sites to provide you with a look at this marvelous find.



Richard D. Fisher, a photographer and explorer, placed photos on the web at www.canyonsworldwide.com after completing an expedition to a deep mine in southern Chihuahua Mexico where the crystals were formed in a natural cave totally enclosed in bedrock.

The Naica mine was first discovered by early prospectors in 1794 south of Chihuahua City. They struck a vein of silver at the base of a range of hills called Naica by the Tarahumara Indians. From the discovery until about 1900, the primary interest was silver and gold. In the 1900's, large-scale mining began as zinc and lead became more valuable. The mine was shut down from 1911 to 1922 due to the Mexican Revolution.



In April 2000, two brothers, Juan and Pedro Sanchez, were drilling a new communication tunnel for Peñoles Mining when they made a truly spectacular discovery, Cueva de los Cristales (Crystals Cave). The cave contained the worlds biggest and purest gypsum crystals ever found, reaching up to 10 m in length and 2m in diameter. While Naica miners are accustomed to find-

(See "GIANT CRYSTALS" on page 7)

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PICK&PACK

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Number 8

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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Founded in 1936

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**Our Staff...**

Betty Cain
Bill Cain

Editor
Mailer

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 in the next month's issue is the third (3rd) Friday of every month. To submit an item, please use the following:

Photos:

For hardcopy photos, 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.

Articles:

Mail or email to the addresses below.

ALL FORMATS ARE WELCOMED.

Email: bcain2@earthlink.net or
Info@csms.us

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PRESIDENT'S CORNER



Drew Malin

Tell presentation in September.

Did you have a great summer? Did you participate in one of our field trips or go on a personal hunt? The session is winding down in Colorado, but there's still time to get a little exercise, fresh air (and sunburn!), and find a new specimen or two for your collection. We'd like to share your excitement at the September General Assembly; so, check with your satellite group leader, and let them know that you'd like to be part of the Show &

I'd like to personally thank all the volunteers who worked so hard to make this year's show such an outstanding success! We have some very dedicated and talented members who unselfishly donated their time, energy, and resources to make it all happen. I'm looking forward to another success next year. So, start planning your display cases and mark your calendar for June 21-22, 2008. The planning sessions will be starting soon—think how you can lend a hand in one of the many areas of putting on a show. It takes all of us pulling together to get everything accomplished.

I'm taking this opportunity to welcome the new members who joined us in 2007: Tom Accivatti, Cat Ashley, Catherine Atwood, Roger & Pat Barnes, DeAn Beukema, Danny & Laura Canini, Ellied & Ken Carlson, Steve & Linda Carnell, Jerry & Marilyn Cavin, Frank & Dee DiNino, Dianna Ebad, Jim & Kathryn Evans, Jr., Jim & Katy Gilbert, Barbara Gunila, Phil Harris, Peggy Hartmann, Jeanne Hensel, Frank & Cornelia Hice, Larry & Linda Hill, Richard Hobson, John Holiday, Cal & Chris Jacobson, Susanne Methot, Michael & Megan Pack, Ann Proctor, Jeff & Paula Rossmanith, Art & Becky Santellen, Clint & Donna Gail Schneider, Francisco Sotomayor, Teresa Stoiber, Raymond Wilson, Ron Yamiolkoski, David Yates, and Michael Yates. And, let's not forget all you faithful members who have continued your CSMS membership in 2007!

We'll soon be electing new officers for the 2008 term. If you want to really make a difference in CSMS, volunteer for an elected office or committee chairperson. Please contact me if you have a desire to serve. It's been an awesome pleasure serving as your CSMS President for the past 3 years, and I know the new President (when elected) will serve us well. I'll still be on the Board of Directors as the new Past President - Bob Landgraaf can finally retire☺.

See you at the August picnic and swap/sale at WMMI.

GENERAL ASSEMBLY PRESENTATIONS

Want to know more about what goes on at the subgroup meetings? Each group will present a 10-minute "What I did on My Summer Vacation" show & tell table at the **September** meeting. So everyone ~ get out into the fresh air or go on one of the several field trips offered this summer to find some goodies to share with the club. For more information, contact Linda Laverty at (719) 964-6222 cell or (719) 520-5939 home or log on to the club web site for current list of activities and field trips.

2007 SCHOLARSHIP AWARDED

This year's CSMS Scholarship recipient was **Michael Mitchell**, now an undergraduate at the Colorado School of Mines. Michael was one of the two winners of the 2006 scholarship as a high school senior.

Congratulations, Michael; we wish you much success in your studies at CSM!

RMFMS PRESIDENT'S MESSAGE

BY RICHARD JAEGER

The combined AFMS/RMFMS Convention and Show in Roswell, NM was an outstanding success. Show Chairman **Frank Whitney**, Show Advisor **Howell Whiting**, and all the other members of the **Chaparral Rockhounds** are to be congratulated. The Editors Breakfast and Awards Banquet were excellent with the best attendance in several years. The AFMS and RMFMS business meetings were also a success despite a few problems with our recording equipment. The show itself had about 130 exhibits with 40 of them being competitive which again are the highest numbers in many years for an AFMS show. There were 10 RMFMS trophies awarded and I believe 19 AFMS trophies. The show had ten quality dealers and the silent auction area had very good materials. The field trips during and after the show were well attended and produced some excellent finds. Will all the positives about the show, the thing that stood out the most was the hospitality of the **Chaparral Rockhounds**. I think lists of the winners of the Competitive Trophies will appear elsewhere in this newsletter as will the list of the winners of various bulletin competitions presented at the Editors Breakfast.

New officer elected at the Annual Delegates Meeting are:

President: **Stan Nowak**, Enid, OK
Vice President: **Yonis Lone Eagle**, Farmington, NM
Secretary: **Carol Holman**, Stillwater, OK
Treasurer: **Gene Maggard**, Wichita, KS
Arizona State Director: **Debbie Leschner**, Wickenburg, AZ
Kansas State Director: **Marvin Lundquist**, McPherson, KS
South Dakota State Director: **Don Rather**, Rapid City, SD

The terms of these newly elected officers will begin on November 1, 2007.

EDITOR'S NOTE We would like to thank the following CSMS members for currently serving as RMFMS Officers and/or Committee Chairpersons:

Past President: **Roger Pittman**
State Director: **Mike Wheat**
Nominations: **Roger Pittman**
Long-Range Planning: **Roger Pittman**
Ribbons: **Kaye Thompson**
Uniform Rules: **Jack Thompson**

Thank You!

See "RMFMS President" on page 9

CHANGING MINES IN AMERICA, A PHOTOGRAPHY EXHIBIT BY PETER GOIN

The Western Museum of Mining & Industry is opening a new photo exhibit on September 13, 2007, 5:00-7:00 p.m., featuring the work of nationally recognized artist **Peter Goin**. Experience Goin's visual and cultural legacy of mining landscapes throughout the United States. Goin is an artist, author, and professor of Art in photography and videography at the University of Nevada, Reno. Peter's photographs have been exhibited in more than fifty museums nationally and internationally. He has received two National Endowment for the Arts Fellowships, and his photographs have been published in numerous books, including but not limited to *Stopping Time: A Rephotographic Survey of Lake Tahoe*, *Nuclear Landscapes*, *Atlas of the New West* and *Changing Mines in America*. The exhibit runs until December 29, 2007. Exhibit Opening is free of charge and will include a special talk by the artist and food and drink. Please RSVP by September 7 to 719-488-0880. Customary admission applies to ongoing dates.

Sponsored by The Gazette, The Bee Vrandenburg Foundation, the Cherry Hunter Fund, The National Endowment for the Arts, and Colorado Council on the Arts.



UPCOMING SHOWS

Sept 1-3

Grant Co. Rolling Stones Gem & Mineral Society, Silver City Rec Center, 11th & Gold Streets, Silver City, NM; contact Judy Allen (505) 388-4054 or Show@stockmanfamily.net

Sept 12

Colorado School of Mines Geology Museum Open House, 7:30-10p, call (303) 273-3823

Sept 22

Triceratops Trail free fossil tour, Golden, CO, 10a-2:30p, contact Erin Fair (393) 697-3466 X11

Sept 12-16

Colorado Mineral & Fossil Show, free, Denver, Holiday Inn Denver Central 4849 Bannock St, see http://www.mzexpos.com/colorado_fall.htm

Sept 14-16

Denver Gem & Mineral Show, Denver Merchandise Mart, 1-25 & 58th Ave (Exit 215), contact Martin Hannu (303) 429-2519 or icd55mph@qwest.net

Sept 20-23

Rockhound Rendezvous, US Hwy 95, McDermitt, NV, contact (775) 532-8551 (see coupons, pg 13)

Sept 28-29

Enid Ok Rock Show, Garfield County Fairgrounds, contact (580) 234-5344

Oct 1-7

McCurtin County G&M Club Show, Idabel, OK

Oct 13-14

Topeka G&M Society Show, Topeka, KS

Oct 13-14

Haachuca Gem, Mineral & Jewelry Show at Sierra Vista, AZ; contact Bill at (520) 803-6590 or billjaeger@hotmail.com

FIELD TRIPS

Aug 24-25

CO Chapter Friends of Mineralogy, Leadville Field Symposium, contact richard.parsons@att.net or pmodeski@usgs.gov

Aug 25

Devils Head, Douglas County, No. Jeffco Gem & Mineral Club, contact Ted Gildea, (303) 730-9332 or gildea@mindspring.com

Sept 1-3

Mt Antero, Chaffee County, No. Jeffco Gem & Mineral Club, contact Bob Loeffler (303) 980-1174 or bobl@peaktopeak.com

Sept 20-23

McDermitt Rock & Gem Show

STRATABOUND RED BED COPPER DEPOSIT, SOUTH PARK BASIN, FREMONT COUNTY, CO

By ANDY WEINZAPFEL

Those of you familiar with the large copper-molybdenum porphyry orebodies of the southwestern United States might assume copper deposits are found solely in igneous rocks, sourced by deep-seated, wet mineralized intrusions. Yet in the Lake George area, Colorado, minor copper mineralization is hosted in skarns, a carbonate facies within meta-

morphic rocks. In Fremont County, South Park Basin, abandoned mine dumps (see accompanying photo) record an interesting malachite (copper carbonate) occurrence apparently formed at low temperatures in sedimentary rocks. Hosted within the Pennsylvanian Sharpsdale Formation, there is abundant green malachite in a quartz sandstone as pore-filling between grains. This type of occurrence has

been historically referred to as “stratabound” or “strataform”, because the tabular mineralization is confined to specific sedimentary horizons. Most of the Sharpsdale Formation is extensively stained by ferric oxides, especially hematite, indicating highly oxidizing conditions. The Sharpsdale is a classic “red bed”. Red beds are found worldwide, peak at certain ages such as the Triassic, and are usually deposited under hot terrestrial conditions at low latitudes. Marine red beds are extremely rare because of the presence of organic material deposited below the original sediment-water interface and preserved. This causes reducing conditions, where ferrous iron colors sediments greys to very dull greens. The stable iron mineral in reducing environments is usually pyrite.

The ore at the Fremont County occurrence is confined to a bleached sandstone where feldspars, if originally present, are destroyed. The ore horizon is overlain by less permeable red beds of arkosic (feldspar-rich) sandstones and shales. There are minor sulfides (covellite?) within the richest ore.

Worldwide, besides copper, stratabound deposits may contain silver, uranium, or other metals. Often one deposit will have at least two elements as recoverable ore components. In Montana and Idaho, large copper-silver deposits occur in the Revett Formation of the Belt Supergroup, 1.40-1.45 billion-year old quartzites. Uranium roll fronts, named for their “C-shaped” cross section geometries, occur in sandstones in areas where there is an overlying source of uranium (silica-rich volcanics). The uranium is leached from its source and transported by alkaline ground water. These roll fronts are best developed in the

USA in sedimentary basins of Wyoming and the Gulf Coastal Plain of Texas.

While the genesis of stratabound orebodies can be complex, there appear to be common components: 1) groundwater leaching metals from a nearby source bed (overlying unit or basement high); 2) transport into an aquifer under

favorable chemical conditions; 3) precipitation of ore at an oxidation-reduction boundary. A reducing agent, commonly in-situ organic material, appears essential to form the orebody. Some deposits are found where hydrocarbons are naturally leaking upward from a deeper pool, causing extreme reducing conditions. In Texas, for example, some uranium orebodies occur above hydrocarbon-producing salt domes.



Fremont County mine dumps of southwestern South Park Basin. The 3rd dump from the lower left (2nd from upper right) is the richest malachite-bearing stratabound mineralization.

Abbreviated References

Boleneus, David E. et al, 2005, Stratabound Copper-Silver Deposits of the Mesoproterozoic Revett Formation, Montana and Idaho: USGS Scientific Investigations Report 2005-5231

Turner, P., 1980, Continental Red Beds, Elsevier, Amsterdam, 567pp

Zentilli, M. et al, 1997, Hydrocarbon Involvement in the Genesis of Ore Deposits: an example in Cretaceous Stratabound (Manto-type) Copper Deposits of Chile, International Geology Review 39, p1-21.

On Memory of . . .

RICHARD WRIGHT

CSMS Life Member, **Richard Wright**, passed away on June 3, 2007.

Richard was a resident of Manitou Springs and became a Life Member of CSMS in 1972.

A book will be presented to the Penrose Library to honor Richard's many years and contributions to CSMS.

What Makes Living in Colorado Great: *from a local radio station*

- Michael Vick doesn't play for the Broncos.
- Lindsey Lohan is no where near I-25.

PEBBLE PUPS 2007-2008 PROGRAM

We are very excited to announce that our CSMS Pebble Pups now has a leader—**Steven Veatch!** And, he's prepared an amazing program of events for September 2007 through July 2008. Steve will be assisted by **Donald Hillman**. Pebble Pups will meet in a classroom at the Senior Center each month from 6:45p-7:15p before the monthly General Assembly. Please contact Steve at (719) 748-5010 or sgeoveatch@worldnet.att.net.



Date	Class Title	Topic
Sept 20	Volcanoes	Rocks formed from volcanoes will be studied. A virtual field trip to El Capulin National Monument will explain a volcano. Volcanic rocks will be featured. Mineral of the month: periodot
Oct 18	Journey to the Center of Geology	Earthquakes, faults, and the structure of the earth will be examined. How to make a rock collection will be discussed. Igneous rocks will be featured. Mineral of the month: quartz in geodes
Nov 15	Colorado's Sedimentary Rocks and How They Reveal Geologic Time	Activities focus on using rocks to interpret Colorado's geologic history. Pebble Pups will construct simple geologic cross sections for understanding resource distribution and interpreting geologic history. Sedimentary rocks will be featured. Mineral of the month: chalcedony
Dec 20	Fossils & Dinosaurs	Activities include using real data collected in the field, studying dinosaurs, and how fossils allow students to look at the Earth's past. Erosion and deposition will be discussed. How to collect, prepare, and preserve fossils will be discussed. Pebble Pups will reconstruct ancient climates and ecosystems based on selected fossils. Fossils will be featured.
Feb 21	Rocks Under Pressure	Discover the Rock Cycle and how metamorphic rocks are made. After comparing metamorphic rocks to their sedimentary and igneous equivalents, students will understand that metamorphism changes one kind of rock into another kind of rock. Metamorphic rocks will be featured. Mineral of the month: garnet
Mar 20	Oil, Gas, and Mineral Exploration	Learn about oil and gas through core samples, oil samples, microfossil samples, maps, electric logs, and seismic sections. Learn about radiation and radioactivity, the uses of atomic energy. Activities will include applications of aerial photography and satellite imagery for seeing the big picture for oil, gas, and other resource exploration. Topographic and geologic maps will be studied. The use of a compass will be demonstrated. Mineral of the month: pyrite
Apr 17	Chili Today, Hot Tamale: Let's Look at Colorado's Climate	How climate can change the landscape and change rocks. Colorado's Ice Age will be explored. Glaciers will be studied, and a virtual field trip to Antarctica is included. The class will look at what governs the climate systems and how human impact on the atmospheric environment may be affecting the climate. Climate change and sea level rise, land use changes, atmospheric pollution, and coastal watershed management will be examined. Discussion on how to prepare a Pebble Pup collection for the show. Tektites will be studied. Mineral of the month: ruby (corundum)
May 15	Exploring Caves	How caves are formed. Rocks and minerals found in caves will be discussed. Fossils and archaeological artifacts found in caves will be featured. There will be a Saturday field trip to the Cave of the Winds. Mineral of the month: calcite
June 19	Rocks, Minerals, and Fossils in National Parks	Regional national parks will be explored via virtual field trips. Enter rock collection in the Show. Mineral of the month: fluorite
July 17	Field Trip	Florissant Fossil Beds National Monument and the Florissant Commercial Quarry. There will be a hike and picnic at the Florissant Fossil Beds National Monument. The field trip will conclude at the Florissant Commercial Quarry. All fossils found may be kept for personal collections unless the fossil has significant importance to the world of science.

Pebble Pups Objectives:

1. Each Pebble Pup will make a rock and mineral collection that will be entered in the June 21-22, 2008 show.
2. Senior Pebble Pups will work on a short article to be published in the *Pick&Pack*.
3. Each Pebble Pup class will focus on:
 - A geologic process
 - Feature a mineral
 - Feature a rock type

MINI MINERS MONTHLY: MINERAL NAMES—WHERE DO THEY COME FROM? WHAT DO THEY MEAN?

EXCERPT FROM 7/07 EDITION BY DARRYL POWELL
(on-going article)

Many minerals were named after a **person**. Some were named in honor of a famous person or someone important in the history of mineral science. Others were named after the person who first discovered the mineral.



Smithsonite was named in honor of James Smithson (1765-1829). He was a British chemist and mineralogist, and founder of the National Museum of the United States in Washington, D.C.

Adamite was named in honor of the French mineralogist, Gilbert Joseph Adam (1795-1881) who provided the first pieces of this mineral for scientific study.

Geothite was named in honor of Johann Wolfgang von Goeth (1749-1832). He was a German and a poet, a naturalist, and an amateur mineralogist.

Kunzite was named after Georg F. Kunz (1856-1932). He was a famous mineralogist, gemologist, and Vice-President of Tiffany's of New York City (Tiffany's is a very famous jewelry store). Dr. Kunz was one of the first people to find out that this new gem is a clear variety of the mineral called *spodumene*.

Other minerals named after people are . . . Jamesonite, Heulandite, Dolomite, Colemanite, Prehnite, Thomsonite, Ulexite, Vivianite, Wardite, Wulfenite, and Wollastonite.

Use the internet to look up these names. See if you can find the full names and pictures of the people after whom these minerals were named.

What if you named a mineral after YOU?!!! It would be called _____.

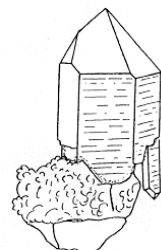
The Mini Miners Monthly is a publication for young mineral collectors. Subscriptions may be obtained at www.diamondandpublications.com or by snail mail to Diamond Dan Publications, PO Box 143, Manchester, NY 14504.

BUILDING A MINERAL COLLECTION

BY DAVID F. ENGLISH, FROM THE 7/07 MINI MINERS MONTHLY

When I choose a mineral specimen, either when I am trading or when I am buying, I find the following ideas give me a feeling of success.

First, I try to buy specimens that are not damaged. What is "damage"? Look for chips and places where the mineral has been banged up.



A really good specimen (left).



The same specimen with damage (right).

Look all over the specimen. If the damage is hidden on the back of the specimen, it may not be a big deal. But, if the damage is on a crystal face or edge that is right in front, you may want to choose a different one.

Second, remember that this is your collection. The goal is to choose the specimen that looks good to you. This is your collection. Collect the minerals that you enjoy. What looks great to you may not look great to another collector. That doesn't matter. What matters is that you are happy with your choice.

Third, you will have to learn by reading and by experience. The more you know about minerals, the more you will be able to identify a higher quality specimen. I find that a high price does not always mean the specimen is better. One year I saw magnetite crystals for \$30 on one table, and larger, better crystals for \$10 on another! Study mineral books, visit shows, go to mineral museums. The more you see and learn, the more expert you will become.

Good luck building your collection. I hope you will find it to be a rewarding experience.

KNOW YOUR HYMNS (?)

Rockhound's Hymn—Rock of Ages
Gemologist's Hymn—Jewels
Dentist's Hymn—Crown Him with Many Crowns
Contractor's Hymn—The Church's One Foundation
Tailor's Hymn—Holy, Holy, Holy
Golfer's Hymn—There's a Green Hill Far Away
Politician's Hymn—Standing on the Promises
Optometrist's Hymn—Open My Eyes That I Might See
IRS Agent's Hymn—I Surrender All
Gossip's Hymn—Pass It On
Electrician's Hymn—Send the Light
Shopper's Hymn—In the Sweet Bye and Bye
Realtor's Hymn—Mansion Over the Hilltop
Massage Therapist's Hymn—He Touched Me

Doctor's Hymn—The Great Physician
Pilot's Hymn—I'll Fly Away
Mother's Hymn—Blessed Quietness
Performer's Hymn—Bring Them In
Traveler's Hymn—Farther Along
Bee's Hymn—Honey in the Rock
Hitchhiker's Hymn—Pass Me Not
Soloist's Hymn—He Keeps Me Singing
Student's Hymn—Yes, I Know!
Diver's Hymn—Deeper, Deeper
Speeder's Hymn—45 mph: God Will Take Care of You; 65 mph: Nearer My God to Thee; 85 mph: This World is Not My Home; 95 mph: Lord, I'm Coming Home; 100 mph: Precious Memories

GIANT CRYSTALS—CONTINUED FROM PAGE 1

ing crystals, the brothers were absolutely amazed by the Crystals Cave. The engineer in charge realized they had discovered a natural treasure and quickly rerouted the tunnel.

The cave's environment has a natural defense system—an



air temperature of 60°C (127°F) and 100% humidity. Explorers (and their equipment) can remain in the cave for only a few minutes. This

has prevented serious exploration until May 2007 when specially-designed Ptolemy suits were put into use. The environmental suits are totally enclosed with respirators and air conditioning. Even so, exposure in the cave is limited to one hour.

To have access for scientific study, lights have been installed. The Ptolemy suits along with crystal-compatible boots and

large fabric 'snakes' made of an extremely resilient material and filled with polystyrene are necessary



to protect the crystals. The fabric snakes are placed in the most stepped-on areas and should limit further damage. The once clear crystals have now turned dusty and opaque as a result of the microclimate disturbances by exploration.

The Geographical Association La Venta, an Italian team of cavers and researchers who have carried out successful explorations in several areas of the planet, and a Mexican company named Speleoresearch & Films were entrusted by the Peñoles Mining Company to implement a research project on the cave from 2006 through 2009.

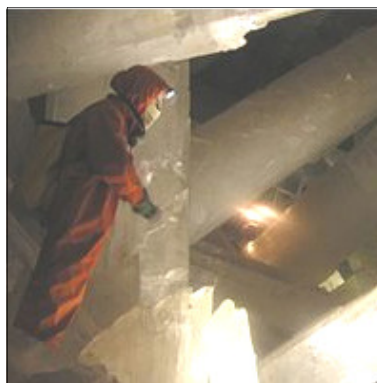
The first area to be investigated was nearest the entrance called Cueva de las Espadas (Swords Cave). The first pictures that brought this magnificent treasure to the world's attention by Richard Fisher was from Swords Cave.



Richard Fisher in Swords Cave

The macrocrystals formed underwater, in a place where the hot and sulphur-saturated deep thermal waters got in touch with external cold waters rich in oxygen that naturally infiltrated from the surface. Along the surface sepa-

rating these waters that could not melt directly due to the different (higher) density of the deep mineralized ones,



oxygen "diffused" into the lower layer with consequent oxidation of sulphur and sulphate ions that caused an extremely light over-saturation of gypsum and therefore its slow deposit. The first slate to be analyzed, collected during a March 2007 expedition, indicated that the

crystals date back to at least several tens of thousands of years. Subsequent water samples are being analyzed by the Department of Earth's Sciences at the University of Firenze. An instrument built at the University of Bologna is being used to measure the crystal growth rate from samples taken during a November 2006 expedition.

The formation of the large selenite crystals was explored during the last years by the University of Granada in Spain. The results were published in the April 2007 issue of the journal *Geology of the Geological Society of America*.

The caves were exposed approximately 15 years ago by the mining activity of pumping around 1000 gal/sec of water at increasingly deeper levels to the surface. When the mine stops working, and it won't be long before this happens, the pumps will be turned off, and in a short time Crystals Cave will revert to its original condition. What remains of its unique and extraordinary beauty will be nothing more than what the explorers are able to discover and tell, illuminating it for just a short instant of its life.

History of Naica:

- 1794 Early prospectors found a vein of silver
- 1900 Large scale work started
- 1910 Cave of Swords discovered at a depth of 120m
- 1922 Mining suspended due to the revolution
- 1935 Mine activity resumed
- 1961 Mine is operated by Peñoles Group
- 2000 Cave of the Crystals discovered by brothers
- 2002 First explored by La Venta from Italy
- 2006 La Venta 3-yr research project begins

Websites: www.naica.com.mx/ingles/index.html

<http://laventa.it/naica/naica-project.en.html>

<http://www.canyonsworldwide.com/crystals/index.html>



OPEN ROADS SAFE—FOR NOW!

INFORMATION OBTAINED FROM WWW.WILDCONNECTIONS.ORG

OPINION OFFERED BY BETTY CAIN, EDITOR

There is a movement called Upper Arkansas and South Platte Project Mission (UASPP) sponsored by Wild Connections (www.wildconnections.org) that wants to make many more of our rockhounding locations "roadless" wilderness areas in addition to the areas already off limit to motorized vehicle passage. Included in the proposed areas are: **Mt Antero, Apache Creek, Pikes Peak East & West, Rampart West, Eleven-mile, N Tarryall Peak, and Mueller State Park.** For a complete list, see Wild Connections' web site.

On March 30, 2007, the Ninth Circuit District Court for Northern California ruled that the Forest Service's adoption of the 2005 National Forest System Land Management Planning Rule (2005 Planning Rule) violated the Administrative Procedure Act, the National Environmental Policy Act, and the Endangered Species Act. The court enjoined the Pike-San Isabel and several other forests from using the 2005 Planning Rule to conduct their planned revisions until the Forest Service complies with its order.

Wild Connections has launched a campaign to rally support for the Forest Service's 2005 Planning Rule. I am not opposed to protecting our forests and wilderness areas; but if this campaign is successful, rockhounds will no longer be able to drive in these areas, period! Only hiking, bicycles, and horses will be allowed. Unless you can walk a great distance and carry hundreds of pounds of specimens, this will essentially preclude our access to many areas.

It's time to speak up—our hobby is endangered in Colorado!

Comments may be sent to Robert Leaverton, Forest supervisor, at (719) 551-1400 or Barb Masinton, Forest Planner, at (719) 553-1475, 2840 Kachina Drive, Pueblo, CO 81008-1560, www.fs.ed.us/r2/psice.



via Bell Notes 2/88
via Behive Buzzer 1/99

ROCK BUGS & SPIDERS

FROM [HTTP://WWW.STONEAGEINDUSTRIES.COM](http://WWW.STONEAGEINDUSTRIES.COM)

VIA ROCK TALK, 7/07

Making rock bugs and spiders will come in handy for cute gifts for children of all ages.

You will need some tumbled stones, pipe stem cleaners or "chenille stems" from a craft store, glue (a multi-purpose cement such as Bond 527), small bottles of white and black acrylic paint, and toothpicks.



Using the white acrylic paint and a toothpick, paint the white of the eyes on the stones. The acrylic paint will take about 30 minutes to dry. When the paint is dry, use the black paint to paint the center of the white, or to the right side, or the left side, or close together for a crazy looking set of eyes. (If you make a mistake, use fingernail polish remover and start over). If you prefer, those cute wiggly eyes may be used but tend to fall off easily with handling.

The legs for the spider will number eight so use two of the chenille stems, cut them in half. Gather up these four pieces and twist the wire in the center about three twists. The bugs will end up with four legs, so use only one stem and cut it in half and then twist the two pieces in the center at least three times. Bend the ends of the stems to simulate feet.

The gluing is the last step. Place the tumbled stone on the center of the stems where the twist is located and estimate where the glue needs to be applied so that the stems and stone will be glued together, without having glue exposed. Apply the glue to this area and center the stone and set upright so that the weight of the stone will help the glue adhere to the stone and the stem legs.

IT'S ALL IN HOW YOU SAY IT—CAN YOU MATCH THESE?

FROM ROCKY TRAILS 11/96

VIA THE ROCKHOUND GAZETTE 7/07

- | | |
|--------------------------------|-------------------|
| 1. City in Michigan | a. adamite |
| 2. Short five cents | b. flint |
| 3. Brass harmony | c. gneiss |
| 4. First man | d. gypsum |
| 5. Lofty lamp | e. hornblend |
| 6. Sick males | f. hyalite |
| 7. Measure of liquid | g. sodalite |
| 8. Snaky | h. ilmenite |
| 9. Terrified forest | i. jade |
| 10. Make thread | j. lodestone |
| 11. Put specimen in car | k. labradorite |
| 12. Pleasing | l. nickelite |
| 13. Wear out or exhaust | m. petrified wood |
| 14. Entrance to chemistry room | n. quartz |
| 15. Cheat a little | o. serpentine |
| 16. Diet drink | p. spinel |

RMFMS PRESIDENT—CONTINUED FROM PAGE 3

Several items of new business were passed at the Annual Delegation Meeting, Operating Procedure (OP) No.:

- Treasurer-I was replaced. The new OP gives State Directors up to \$200 for travel expenses relating to their job. It also sets a \$500 maximum reimbursement for travel expenses for RMFMS personnel required to attend AFMS meetings and for the RMFMS representative to Wildacres.
- A new OP for the job of Ribbons Chairperson was passed, and the requirement that this person be a member of the Uniform Rules Committee was stricken from the Convention Code Management OP.
- A new OP describing the duties of the Parliamentarian was also passed.
- The other new OP is one of the RMFMS Trademark; this was to clarify the process of the periodic renewal of the Trademark rights and the use of the Trademark.
- The RMFMS is a member of the Blue Ribbon Coalition; the new primary contact person will be **Ernie Leschner**, Wickenburg, AZ. With our membership, one other person in Arizona, Colorado, New Mexico, Utah, and Wyoming will also be receiving information, much of which will be related to efforts to keep open roads which we need for collecting opportunities.
- We also voted a membership for the RMFMS in the American Lands Access Association (ALAA), a unit within the AFMS.

AFMS & RMFMS COMPETITION ENTRIES

By JAMES HURLBUT, RM FED NEWS, 8/07

The competitive entries at the AFMS RMFMS show in Roswell numbered more than thirty. The acting AFMS Judging Chair **Jay Bowman** and the RMFMS acting Rules Committee Chair **Jack Thompson** did an excellent job in getting all the cases judged and ribbons presented at the awards banquet.



Here is a list of the AFMS winners:

Paul Ott—BT-I Trophy B: Thumbnail Minerals
William Beiriger—BM-I Trophy 10: Micromount Minerals
Barbara Sky—BT I I-XY: Thumbnail Minerals
Carol Holman—BC-I Trophy 4: Cabinet Minerals
Carol Holman—BT-X Trophy 9: Thumbnail Minerals
Lyle Roessler—C-4 Trophy 15: Lapidary
Steve Gustafson—CC-2 Trophy 18: Lapidary
Carol Holman—F-I Trophy 34: Animal Fossils
Bill Smith—FC-2 Trophy 35: Personally Collected Fossils
Kaye & Jack Thompson—EIC-I Trophy 30: Educational
William Beiriger—EGC-5 Trophy 28: Educational
Betty Pearson—CA-I Trophy 16: Lapidary
Pay Snyder—G-8 Trophy 13: Petrified Wood
Steve Gustafson—C-3 Trophy 22: Petrified Wood
Bill Smith—G-7 Trophy 23: Petrified Wood
Richard Friesen—EIS-I Trophy 42: Educational
Vivian Richards—CA-5 Trophy 42: Lapidary

Thank you for entering these beautiful cases for all show attendees to enjoy!

AWARD WINNERS FOR RMFMS BULLETIN CONTEST, 2007

By LINDA JAEGER, RM FED NEWS, 8/07

New Editors

- 1st—Pick&Pack, **Betty Cain**, Colorado Springs Mineralogical Society
 2nd—The Voice, **Cheryl Christensen**, El Paso Mineral & Gem Society

Small Bulletins

- 1st—Beehive Buzzer, **Leora Alexander**, Beehive Rock & Gem Club
 2nd—Shawnee Slate, **George Finley**, Shawnee Gem & Mineral Society
 3rd—The Rockhound Record, **Lois Spendoria**, Mineralogical Society of Arizona

Large Bulletins

- 1st—Quarry Quips, **Sandy Riekeman**, Wichita Gem & Mineral Society

Adult Articles

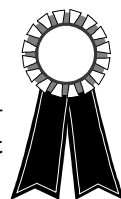
- 1st—"A Blast from the Past: The Meteor Crater Story", **Brett Whitenack**, The Post Rock, McPherson Gem & Mineral Club
 2nd—"Fluorescent Minerals", **Sherman & Ricky Thomson**, Beehive Buzzer, Beehive Rock & Gem Club
 3rd—"Magic Bus Ride with Steven Veatch", **Terry P. Beh**, Pick&Pack, Colorado Springs Mineralogical Society
 4th—"Durania Maxima", **Lois Larson**, The Post Rock, McPherson Gem & Mineral Club
 5th—"Our Rockhound in Japan", **Herb Bastuscheck**, The Shawnee Slate, Shawnee Gem & Mineral Society
 6th—(not listed)
 7th—"Prospecting Trip to the Hassayampa River", **Bobby Montgomery**, The Post Rock, McPherson Gem & Mineral Society
 8th—"The Mother Lode-Part 15—The Demise of Hydraulic-ing", **Thomas Horton**, The Rockhound Record, Mineralogical Society of Arizona
 9th—"Fixing the Lortone Model 34 Tumbler", **Elmer P. Jennings**, Quarry Quips, Wichita Gem & Mineral Society
 10th—"Oil Shale and Tar Sand", **Chris Fite**, T-Town Rockhound, Tulsa Rock & Mineral Society

There were thirteen Honorable Mention awards.

Adult Articles-Advanced

- 1st—"Fossil Spiders from Florissant", **Steven Wade Veatch**, Pick&Pack, Colorado Springs Mineralogical Society
 2nd—"The Earth's Oldest Rocks", **Wes DeCoursey**, The Post Rock, McPherson Gem & Mineral Club

Congratulations to all of you for a job well done! Keep up the great work!



CLASSES COMING UP THIS FALL AND WINTER THROUGH THE CRIPPLE CREEK PARK AND RECREATION DEPARTMENT

FIELD STUDIES IN PALEONTOLOGY (K-12)

0.5 semester graduate credit hour Colorado School of Mines

Date: October 13, 2007

Time: 8:30am-5:30pm

Location: Cripple Creek Parks & Recreation

Instructor: Steve Veatch and Don Miranda

Optional Tuition Fee: \$30 (**payable during workshop**)

Registration Fee: \$69

Starting from Cripple Creek, explore the geological and paleontological wonders along the Shelf Road. Follow the old wagon roads used to haul dinosaur bones from Garden Park to Canon City, visit a dinosaur quarry, and explore nearby dinosaur tracks.

To register or for more information, contact:

Cripple Creek Parks & Recreation

Phone: 719/689-3514



SCIENCE AND NATURE WRITING WORKSHOP (K-12)

0.5 semester graduate credit hour Colorado School of Mines

Date: February 2, 2008

Time: 9:00am-5:30pm

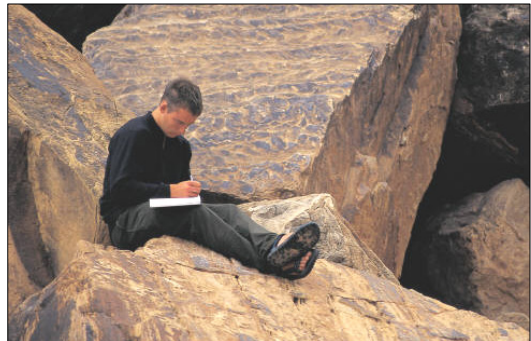
Location: Cripple Creek Park & Recreation

Instructor: Steven Veatch, Don Miranda, local authors

Optional Tuition Fee: \$30 (**payable during workshop**)

Registration Fee: \$49, includes certificate of completion

Science and nature writing is a popular genre of contemporary literature, offering endless opportunities for craft, creativity, and publication. Learn to write clearly and effectively about science and nature. This class is for anyone wishing to learn about science and nature writing. This course introduces you to the fundamentals of science and nature writing and includes the process of writing a single piece of science and nature writing. The workshop includes 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 and structuring stories; research strategies; choosing a narrative voice and strategy, crafting 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 workshop approaches the subject in a clear and accessible manner that provides science-rich, student-centered learning experiences. Taught by experienced practitioners, this class will be a valuable asset for anyone interested in integrating inquiry-based science and literacy strategies in their classrooms, informal education programs, or for their own use. A certificate of completion will be awarded. Formal scientific writing will also be covered.

What others have said about the workshop . . . "The instructors taught us amazing techniques for investigating the natural world around us, and revealed the most compelling ways to communicate our findings to others."

"This workshop is an absolute treasure for anyone interested in writing about science and nature."

To register or for more information, contact:

Cripple Creek Park & Recreation

Phone: 719/689-3514

TIPS & TIDBITS: **Brighter Brights**—If you have some chrysocolla and would like to bring out the green and blue, also any copper, put it in liquid bleach, full strength, for as long as it takes. This really works, and you will get some good colors. *From Quarry Quips, 6/07* **Lapping Geodes**—When you are trying to polish a geode on a vibrating lap, it is difficult to keep the grit out of the center of the geode when it is hollow and filled with crystals. One suggestion has been to fill the center with Knox gelatin, a product you can buy at any grocery store. It turns to jelly when mixed with water and after a while, will set up good and firm. Pour this into the geode before polishing, and when you are done, just wash it out with warm water. It leaves no residue. *From Rockhound Ramblings, 7/07*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SEPTEMBER 2007 — CSMS CALENDAR						1
2	3 Labor Day	4	5	6 7p Board Meeting	7	8 12n Lapidary Group Meeting
9	10	11 7p Micromounts Group Meeting	12	13 5p Photo Exhibit at WMMI	14 7:30p Crystal Study Group Meeting	15 3p Jewelry Group Meeting
16	17	18	19	20 6:45p Pebble Pups 7:30p General Assembly	21	22
23	24 7p Faceting Group Meeting	25 7:30p Camera Club Meeting	26 7:30p Fossil Group Meeting	27	28	29
30						

"Excellence is to do a common thing in an uncommon way." - Booker T. Washington

Locations

Board Meeting: 1st Thursday
@ 7:00p, SilverWood Hotel
Linda Laverty, 520-5939

Camera Club: 4th Tuesday @
7:30p 1514 Hancock, CO
Roger Pittman: 683-2603

Crystal Study Group: 2nd
Friday @ 7:30p, 1514 North Hancock, COS;
Kerry Burroughs: 634-4576

Jewelry Group: 3rd Saturday
@ 3p; 6608 Gambol Quail Dr E;
contact Rick Copeland: 594-6293 or
Bill Arnson: 749-2328

Faceting Group: 4th Monday
@ 7:00p, Various Locations David
Wilson: 635-7891
dlwilson@pcsisys.net

Fossil Study Group: 4th
Wednesday @ 7:30p.
John Harrington: 599-0989

Lapidary Group: 1st Saturday
@ Noon 3085 Rhapsody Drive,
COS.
Drew Malin: 531-7594

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

Pebble Pups: 3rd Thursday @
6:45p, 1514 North Hancock, COS
Steven Veatch: 748-5010

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS

September=Micromounts
November=Camera

October=Fossil
December=Everyone

PRESIDENT	Drew Malin	531-7594	advanceone@comcast.net
VICE PRESIDENT	Linda Laverty	520-5939	chilipepper24@juno.com
SECRETARY	Roger Pittman	683-2603	prpittman@netzero.com
TREASURER	Rick Copeland	594-6293	rick.copeland@covad.net
MEMBERSHIP DIRECTOR	Bill Cain	634-8205	bcain2@earthlink.net
MANAGING EDITOR	Betty Cain	634-8205	bcain2@earthlink.net
MEMBER-AT-LARGE	John Casto	329-0912	jcasto@fvs.edu
MEMBER-AT-LARGE	Brent Williams	632-3552	zaphod1863@yahoo.com
PAST PRESIDENT	Robert Landgraf	685-1364	RMLWP74@aol.com
SHOW CHAIRPERSON	Kaye Thompson	636-2978	
FIELD TRIP DIRECTOR	Brent Williams	632-3552	zaphod1863@yahoo.com
LIBRARIAN	Sarah Udell	237-7985	sarahudell@hotmail.com
CAMERA CLUB	Roger Pittman	683-2603	prpittman@netzero.com
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net
FACETING GROUP	Dave Wilson	635-7891	dlwinson@pcsisys.net
FOSSIL GROUP	John Harrington	599-0989	harrington1@mindspring.com
JEWELRY GROUP	Rick Copeland	332-7915	rick.copeland@covad.net
LAPIDARY GROUP	Drew Malin	531-7594	advanceone@comcast.net
MICROMOUNT GROUP	Phil McCollum		acc@frii.com
PEBBLE PUBS	Steven Veatch	748-5010	sgeoveatch@worldnet.att.net

COLORADO SPRINGS MINERALOGICAL SOCIETY

Minutes, General Assembly

July 19, 2007



President Drew Malin called the meeting to order at 7:35 pm.

The June minutes were approved as printed in the *Pick&Pack*.

Treasurer's Report

Rick Copeland gave a PowerPoint presentation of the Show books. Although there are still a few invoices out, the profit from the Show is approximately \$7,000 with 32% coming from admissions and 7% from the Silent Auction!

Satellite Groups: Reports

- Camera—Roger Pittman reported the subject for the July meeting is “Rock Formations”.
- Crystal—John Casto reported the next meeting will be in September.
- Fossils—John Harrington reported that the Fossil Group continues to meet each month; July's meeting will be at Art Brice's home, 3808 Maplewood Drive.
- Silversmith—Rick Copeland reported that the group is doing wire wrapping and will next meet in September.
- Lapidary—Drew Malin reported that there will be no August meeting.
- Micromounts—Morya Lyne reported that the meeting are held the second Tuesday of each month; cookies are served.
- Field Trips—Ray Berry reported that there are still openings for the 7/23 trip. The trail is in bad shape; please wait until the previous vehicle is up the hill before proceeding. Contact Ray Berry (719) 598-7877 or rayber@peoplepc.com. Drew Malin reported the Mt. Antero trip was a big success and a nice piece was found. Rules & Regulations for our new April Fools Claim were available at the meeting for the August 18 planned trip.
- Show—Drew Malin reported that the new management at Phil Long Expo Center accepted our application for the 2008 Show to be held on the same 2-day weekend, June 21-22. Our vendors did very well this year and were happy. Special recognition was given to Linda & Nick Morales, Mike Wheat, Roger Pittman, and Ilona Vogt for the jobs well done. Kaye Thompson, Show Chairperson, was presented with a plaque of appreciation.

Old Business:

None.

New Business:

- Founders Trophy—Jack Thompson presented the history of the competition trophy and announced the 2007 winner was **Martin Guth** for his UV presentation; the Faceting Group bar was presented last month. 2008 category is “A”, Mixed Jewelry.
- The September program will be a show & tell from each satellite group.
- Our annual picnic is planned for August 25th at WMMI; it's a pot luck lunch with a tailgate swap/sale at 1:00p and a tour of the museum and equipment is on the agenda.
- *Pick&Pack* needs monthly reports from the satellite groups, an article on the General Assembly presentations, and a book review from anyone in the Club.
- 2007 Elections—Drew Malin reported that candidates for Vice President and Members-at-Large are needed. *(Nominating Committee will be appointed at the September General Assembly, list of candidates presented at the October General Assembly, and the election will be held at the November General Assembly. New officers will be sworn in and assume office at the January 2008 banquet).*

Program

Richard Parsons, President of the Colorado chapter of Friends of Mineralogy, presented “Among us Amateurs—the Basics of Crystal Symmetry” as described in the July *Pick&Pack*.

SEPTEMBER BIRTHSTONE— SAPPHIRE

FROM WWW.MINERALGALLERIES.COM

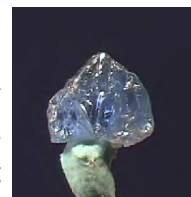
The September birthstone, Sapphire, is chemically and structurally the same as ruby—both are varieties of the mineral corundum. Sapphires are well known among the general public but can be nearly any color except shades of red or pink (since those are called rubies).

The blue color is by far the most popular color for sapphire but orange-pink, golden, white, and even black have generated much interest in the gem trade. Tennis bracelets are available that contain a complete rainbow of sapphire gemstones. Ori-

ented rutile crystal inclusions cause a six-pointed-star light effect (called *asterism*) to form the popular Star Sapphire.

Sapphires are well known from such places as Sri Lanka and India, and excellent specimens are also found in Tanzania and the Kola Peninsula of Russia. In addition, sapphires are found in many places throughout the world, including North Carolina, Brazil, and China.

Sapphires are extremely durable (only diamond and moissanite are harder). Artificial sapphire crystals are used as the crystal face in genuine Rolex watches, and they are extremely scratch resistant.



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.



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WMMI Farmers Market

The Museum's Farmers Market in running until the end of summer. Stop by the Reynolds Farmhouse to purchase fresh produce. (Another great reason to visit the museum!)



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CSMS PICNIC—8/25 @ WMMI

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. **Visitor 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 Study Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups. For details of 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

Family—\$30

Juniors—\$2

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.