



# PICK & PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

**JUNE 2004**

**Volume 44 Number 5**

CSMS is an incorporated nonprofit organization with these goals:

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

## CSMS 2004 Show

### *Pikes Peak Gem and Mineral Show*

The 40<sup>th</sup> Annual Pikes Peak Gem and Mineral Show will take place on Father's Day weekend, June 19<sup>th</sup> and 20<sup>th</sup> at the Phil Long Expo Center. The spotlighted mineral is Feldspar, accompanying the theme, *Rockhounding. A family affair.*

This year's show promises to be the largest show the CSMS has ever held. With the new venue of the Phil Long Expo Center, we will have nearly three times (27,000 square feet) the space we had in past years at the Masonic Lodge.

Currently, we have over thirty vendors confirmed and more making plans to attend (see sidebar for list of vendors). There will be over 200 tables of vendor merchandise offering gold and silver jewelry, loose precious stones, mineral specimens, fossils, obsidian carving, gold nuggets, beads and supplies, lapidary, meta-physical items and much more.



Among this year's vendors will be Diamond Pacific, one of the largest manufacturers and sellers of lapidary machinery and rockhounding equipment. This is the first time we have had a major equipment vendor attend our show.

For the first time, we will also be featuring Mr. Bones, a fourteen-foot tall, 30 foot long, animated T-Rex skeleton. Mr. Bones is always popular with kids of all ages and

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<b>Kay Thompson</b>	<i>Past President</i>
<b>Manny Sanchez</b>	<i>Show Chairman</i>
<b>Roger Pittman</b>	<i>Field Trip Director</i>

## Colorado College Students Explore the Godsend Claim

*Steven Wade Veatch*

Sunday, May 5th, Rich Fretterd of the Colorado Springs Mineralogical Society hosted a number of Colorado College students at the Godsend claim near Florissant. These students, who are members of a class being taught by Dr. Charly Bank, spent the afternoon exploring the Godsend claim. During the afternoon the students studied the mineralogy and rocks of the claim. All of the student geologists had a chance to explore the underground workings of the remarkable Godsend claim. For many, this was the first time they had done field investigations at a crystal mining operation within a pegmatite body.

See *Godsend* on page 4



*Figure 1. Dr. Bank from the Colorado College Geology Department, along with his son, several students, and Rich Fretterd enjoy a Sunday afternoon of geology at the Godsend claim. Photo date May, 2004 by S. Veatch*

### *Proud Members of:*

American Federation of Mineralogical Societies (AFMS)

Rocky Mt. Federation of Mineralogical Societies (RMFMS)

Colorado Federation of Mineralogical Societies (CFMS)

Colorado Springs  
Mineralogical Society  
Founded in 1936



Lazard Cahn  
Honorary President



*Our Staff...*

**Ethan A. Bronner** *Managing Editor*  
**Cindy Bronner** *Assistant Editor*

**Robert & Naoko Murphy** *Mailers*

**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 E-mail it. Format does not matter. All submissions are welcomed.

**DEADLINE for items to be included in the next month's issue is the fourth 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. All photos will be returned. Electronic photos should be submitted at resolutions above 200 dpi in TIFF or PICT format.

**Articles:**  
 Mail, E-mail, or fax to the address and numbers below. ALL FORMATS ARE WELCOMED.

**E-mail:**  
 CSMSpickANDpack@msn.com

**Address:**  
 1025 East Boulder Street  
 Colorado Springs, CO 80903

**Phone & Fax:**  
 (719) 448-9949  
 For faxes no precalls are required.

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PRESIDENT'S CORNER

**2004 Show Programs**

Robert Landgraf



By the time you read this newsletter, the Pikes Peak Gem & Mineral Show will be upon us. I hope that you have signed one of the volunteer sheets to help with things like admissions, hospitality,

silent auction, demonstrations and the kids activities. We need some people to just float around and help relieve people from various activities from time to time. Come and spend the day. We will have an abundance of activities and just swapping tails with fellow rockhounds is always fun. Our programs during the show will include the following:

**2004 Show Programs**

**Saturday**  
How to Start a Rock Collection - oriented towards collecting for the family and children; by Pete Modreski from the US Geological Survey

How much for that diamond? - The four C's in diamond value; Learn what determines a diamond's value. Become a knowledgeable buyer. By Lane Williams of Lane Jewelry and Pat Koples.

The Smallest T-Rex Ever Found and the new museum, The Rocky Mountain Dinosaur Resource Center in Woodland Park; By Dave Ehlert, Director of the Rocky Mountain Dinosaur Resource Center.

*Special Guest Speaker*  
Reminiscences of Family Rockhounding. How Cora and I got into rockhounding, some of our experiences along the way, how I got into writing and how others could, too. I would also talk about bringing the hobby to kids and some experiences with that in nearly 30 years as a teacher and principal. By Bill Kappele, Production Assistant for Rock and Gem Magazine and author of *Rockhounding, Colorado*.

**Sunday**  
 Will include a repeat of our special guest speaker.

The Prospector by our own Jack Thompson, volunteer from the Denver Museum of Nature and Science.

Don't forget to bring your excess specimens for both the silent auction and to use in the kids' gem mine. This is a good time for spring house cleaning to make room for this summer's new finds.

Hope to see everyone at our show!

**Your Club Needs YOU**  
*Please Volunteer*

**Y**ou probably have already read the article on the front cover, *The 40<sup>th</sup> Annual Pikes Peak Gem and Mineral Show*. This year's show is proving to be an exciting event. Obviously, an event this size requires a lot of support from our members. The Colorado Springs Mineralogical Society is made up of over 200 members, each of whom benefits from the exciting opportunities that this club offers.

Each year's show does a large part in helping us achieve this organization's goals (see sidebar on page one for a list

of the goals). Along with this, it also produces the revenue that helps us keep our dues low (your annual dues only cover the cost of your Pick and Pack and your insurance for field trips) and still meet our financial requirements.

Now is the time for every member, who benefits from the plethora of exciting opportunities that the CSMS offers, to volunteer their time to help keep this organization moving forward.

All that is asked of you is TWO HOURS of volunteer time at the show. We need everyone to help it be successful and to

help us reach our goals. Two hours is less time than most club-sponsored fieldtrips last. Every member should be able to spare this much time to give back to this organization that gives every member a lot in return.

The bonus: Every member that volunteers for two hours gets free admission to both Saturday and Sunday's Show. Non-volunteering members must pay the full admission price.

In the sidebar is a list of areas where we need volunteers. To sign-up, call the number below and tell Cindy, "I want to VOLUNTEER." She will assist you in finding a category and a time that will work for you. Times and dates are first-come-first-serve. If you volunteer, please remember to keep your commitment; we will be

counting on you.

The CSMS wants to thank in advance everyone who chooses to help make this year's 40<sup>th</sup> anniversary show a success.

**Call Cindy: 448-9949**

**Areas were volunteers are needed:**

- **Set up:** Friday @ 10:00 AM until done
- **Admissions:** 2 hour Shift
- **Hospitality:** 2 hour Shift
- **Rovers:** 2 hour Shift
- **Kids' Area:** 2 hour Shift
- **Silent Auction** Please contact Ilona Vogt at: 391-9638.
- **Clean Up:** Sunday, 5:00 PM till done

## Minutes...

*May 20, 2004*

Bob Landgraf called the meeting to order at 7:35 p.m.

Minutes from previous general meeting were accepted.

**Treasurer's Report:** N/A

**Satellite Groups:** Camera, crystal, faceting, fossil, lapidary, micromount and jewelry group leaders announced dates, meeting locations and program for next month.

**Show Report:**

- TV commercials were produced on Friday, May 14.
- 3,000 flyers were handed over to CSMS members for distribution.
- Ruth Cook negotiated advertising in newspaper.
- The Show Committee started working on layout of the show. The show meeting is scheduled at Drew's house on Saturday, May 22.
- Volunteers are needed for all show activities.

**Field Trips:**

- Field trip to the Marble Quarry on Memorial Day weekend needs at least 7 participants, otherwise it may be cancelled.

**Old Business:**

- Discussion of more frequent updating of the CSMS website, possibly including list of books in the club library.
- The CSMS show has only 15 applications for display cases at this time - more cases needed!

**New Business:**

- Ray Berry, Steve Willman and Tom Odiorne got awards at the Federation Show at Wichita.
- Ray Berry informed about Forest Service project to reopen Gold Camp Road.

The general meeting was adjourned at 8:15 p.m., followed by program "Colorado Mineral and Mineral Fuel Deposits through Geologic Time" by James Cappa.

## June 2004 General Assembly

The June meeting falls on the Thursday before the show. This will give us an opportunity to bring everybody up to speed. Bob and Drew will be reviewing everything that will be happening and the systems we will be following to make this event run smoothly.

If you have volunteered, it is not necessary for you to come, but it is recommended so that any questions you may have can be answered.

No guest speaker will be scheduled.

**June 2004 General Assembly  
Thursday, June 17, 2004, 7:30**

**Colorado Springs Senior Center  
1514 North Hancock Blvd, C/S,  
CO.**

*Junes's refreshments courtesy:  
**Jewelry Group***

**Wanted specimens, equipment,  
and anything you may have to  
donate to the Silent Auction.**

If you would like to make a donation please contact Ilona Vogt at: 391-9638.

All donations are greatly appreciated.

## Kids' Area

We are also looking for ideas to help make the Kids' Area more exciting and to help educate our future members. Any ideas should be directed to Montaine Bronner at [MdbME2@aol.com](mailto:MdbME2@aol.com). Anyone interested in running the Kids' Area or sharing this duty should also contact Montaine.

# Commercial Times

**KRDO-TV 13**

- 5-7 am Good Morning Colorado 6/7
- 6-7 am Good Morning Colorado 6/9
- 9-10 am Regis and Kelly 6/11
- 6-7 am Good Morning Colorado 6/14
- 9-10 am Regis and Kelly 6/15
- noon-1 One Life To Live 6/16
- 5-7 am Good Morning Colorado 6/17
- 10-11am Martha Stewart 6/17
- 6-7am Good Morning Colorado 6/18
- 9:30-10pm Dharma 6/7
- 7:30-10pm Movie - Field of Dreams 6/12
- Buick Classic Golf 1-4:30pm 6/13
- 10-11am Martha Stewart 6/10

**Cable Stations**

- 5-11 pm Animal Planet 6-7 - 6/13
- 5-11 pm Family 6-7 - 6/13
- 5-11 pm Hallmark 6-7 - 6/13
- 9 am -5 pm HGTV 6-7 - 6/13
- 5-11 pm Animal Planet 6-14 - 6/19
- 5-11 pm Family 6-14 - 6/20
- 5-11 pm Hallmark 6-14 - 6/20
- 9 am -5 pm HGTV 6-14 - 6/20

# Good Morning Colorado

The Pikes Peak Gem and Mineral Show will be spotlighted on Good Morning Colorado on KRDO channel 13 on Friday morning June 18, 2004.

The actual spot will be taped on Monday June 14th at 10:00 AM. This will take place at the Chapel Hills Mall.

Drew is asking that we have a large number or cute kids present to fill background shots. If you have some children and can make it to the taping, please meet at 9:45 AM by the Ice Skating Rink.

## Show Continued from page 1

will be menacing the show floor all day both Saturday and Sunday.

Thanks to the diligence of Vice President Drew Malin and the strong support and assistance of CSMS member Sara Williams, we will be moving into the 21<sup>st</sup> century by running television commercials for the week leading up to Saturday and Sunday (see sidebar for dates and times). With the support of Steve Russell, whose fine jewelry is displayed, and Dave Wilson, whose cut gemstones are featured, our 30-second spots spark with an eye-catching invitation to come attend our show. And, to help round out our television exposure, this year's show will also be featured on Friday June 18<sup>th</sup>'s *Good Morning, Colorado*. This is due to the gracious support of KRDO Channel 13.

After years of absence, we will be welcoming back the Gold Prospectors of Colorado, who will be bring their ever-popular, FREE gold panning troughs. The Gold Prospectors happily offer one-on-one lessons to anyone who asks for assistance. They also load their troughs with all sorts of small polished stones and semi-precious gems, free for the taking to those who have panned them out. The Gold Prospectors prove to be very popular wherever they set

up, and this year it will be at our show.

We will also be having the Kids' Gem Mine, an area for children to learn more about rocks and minerals and have a chance to find their own treasure in a "mine." Also, CSMS lapidary members will be demonstrating the art of cutting and polishing rocks. And the ever-popular silent auction will be back with many deals on specimens of all types.

This is just a quick review of some of the highlights of the 2004 show. It is promising to be an exciting show and good prelude to the Colorado Springs Mineralogical Society's hosting of the 2005 Rocky Mountain Federation show.

The CSMS Pikes Peak Gem and Mineral Show has had a variety of venues, several exciting highlights (the 1975 show featured actual Moon rocks on loan from NASA and required 24-hour armed guards) and has always proven to be a good time.

The 40<sup>th</sup> anniversary show, under the direction of President Bob Landgruf, Vice President Drew Malin, and Show Chairman Manny Sanchez, not to mention the other members who have been putting in long hours, is raising the bar to new levels. This year's show has the potential of creating a new face for the Colorado Springs Mineralogical Society to its community and the surrounding areas. 

## Godsend Continued from page 1



**Figure 2.** A Colorado College geology student contemplates the geologic wonders of the Godsend claim. Photo date May, 2004 by S. Veatch

Everyone also had a chance to observe fire ecology first-hand after the Hayman blaze swept through the forest. At the end of the day, all of the students left with rock and mineral specimens.

Steven Veatch was on hand to talk about the geology of the area while Bodie Packham discussed the details of pegmatite mining. Packham owns a nearby claim and helps Rich Fretterd with the Godsend.

Colorado College is well-known for its field-oriented geology courses where students spend much of their class time outdoors, seeing examples of the various rock types and their stratigraphic and structural relationships. The Godsend Claim is noted



**Figure 3.** Bodie Packham, a local gem miner, relaxes by the Godsend portal. Photo date May, 2004 by S. Veatch

for some of the largest smoky quartz crystals ever found in Colorado. 

# The Great California Meteorite Find

## *Irrational Exuberance in the Mojave Desert*

Steve Willman

In February 2003, Peg and I were camped in the Mojave Desert of California near a place called Indian Pass. This is quite near the Arizona border and perhaps 20 miles north of Yuma Arizona. We planned to paint/sketch and hunt for dumortierite, kyanite and agate.

We had only one "neighbor" camped about 1/4 mile away. He was quite an elderly man from Kansas, and he and his dog would wander the hills all day long. The day we arrived I startled him when, as he was returning from his day of wandering, he came across me painting in the shade of one of the few trees in the area. We talked for quite a long time. He probably had not had anyone to talk to for a while except his dog. At one point he apologized for not being able to enunciate better and said that had he known he was going to meet someone he would have brought his teeth!

This seems to be a little visited place. Most of the RV campers are concentrated nearer the main highways and don't seem to venture too far off the pavement and into the desert. The hills are mostly barren badlands with rocks sprinkled very evenly over the surface of the ground. The rocks range in size from pebbles to small boulders and exhibit the dark brown, shiny "desert varnish" created by the wind. Even the cactus is sparse here. The large arroyo we were camped next to had some small trees and brush but otherwise the surrounding hills were mostly rock covered.

The second day of our stay we were off to look for rocks! For several hours we wandered the hills finding some small pieces of deep purple dumortierite and some specimens of blue kyanite. Agate and jasper were also found and we kept some of the more attractive pieces for tumbling.

Near lunchtime we were near the crest of a large ridge perhaps 1/2 mile from the car. I spotted a boulder or outcrop of dumortierite that was several feet across. I thought it was remarkable that this outcrop showed no signs of digging so I assumed that no one had found it before. We had a snack and some water while wrapping some pieces of the better colored dumortierite.

While searching around I made an amazing discovery. Deep within a crevice

of a fractured boulder was an irregular mass of what looked to be iron. It was nearly 6" long, 1" thick and 2 to 3" wide. It seemed to show the telltale grooves and hollow dished out areas of a meteorite. Wow! I had found a meteorite. I was ecstatic.

I must have studied my meteorite for 20 minutes before wrapping it up and putting it in my pack. What an incredible find. We continued our search but now I could not help but look for bits of iron.

Perhaps 30 minutes later and higher along the broad ridge crest I found myself standing in a spot about 10 feet across that was void of the ubiquitous rock. It was striking because the soil was very light in color and the surface rocks were mostly dark brown. The absence of the dark brown rock was very noticeable. The area of soil was oval and slightly depressed at one end. It occurred to me that this sure looked a lot like an impact site. Wow, again! Had I actually found the crater formed by the impact of the meteorite fragment that I had discovered earlier?

The oval shape of the crater would be aligned with the direction of the fall and the deeper area would indicate direction the object was traveling. Lining up in that manner, the boulder of dumortierite was perhaps 100 yards away and nearly on line. This might actually be the impact site.

I dug into the soft, white earth to see if there might be fragments remaining in the soil. I found nothing after 15 minutes or so of digging. I then spotted a bit of rust just on the edge of the crater. I dislodged the rocks around the rust patch and a small bit of iron popped out. This was a thin fragment about an inch long. We then began to search through the rocks in the direction of impact and after an hour we had several dozen fragments. They were mostly small - less than an inch - but one was several inches across. This was just incredible!

Talking about our good fortune we once again moved on. We made plans to return with a metal detector.

I saw that I could get a view of a wide area from a small summit along the ridge so I decided to hike up to it. Peg continued a more methodical search for interesting specimens. On the way up I crossed another round "bald spot" but this and the

*Continued on next page*

## CSMS 2004 Show Vendors List

As of press time, the following is a list of vendors that are confirmed. More have shown interest, but have not yet given their confirmation.

Accidents Happen - Elaine Teevens  
 Anya  
 Artes Gem & Minerals  
 Bad Boys of Cripple Creek  
 Carol Originals  
 Carved Opal and Obsidian  
 Colorado Nuggets  
 Costigan's Minerals West  
 D & J Rare Gems  
 Dan's Used Rocks  
 Diamond Pacific  
 Earthworks  
 Ebersole  
 Garsow  
 Geo Oddosy  
 Glacier Peak Fine Art and Gems  
 Impactika  
 JJ & L Rocks and Minerals  
 John & Pat Wright  
 Krystals - Joe Swanson  
 Lane Jewelers, Inc.  
 Morgan Trinkets  
 Natural Expressions  
 Ostrofsky  
 Richard Fretterd  
 Rick Copland  
 Sangre De Cristo Gallery  
 Sharon's Minerals  
 Susan Henderson  
 Terrestrial Treasures  
 William Myer Gems

## Feldspar Stats

### Sources

Feldspar is mined from large granite bodies (called *plutons* by geologists), from pegmatites (formed when the last fluid stages of a crystallizing granite becomes concentrated in small liquid and vapor-rich pockets that allow the growth of extremely large crystals), and from sands composed mostly of feldspar.

Because feldspar is such a large component of the Earth's crust, it is assumed that the supply of feldspar is more than adequate to meet demand for a very long time to come. It is so abundant that geologists and economists have not even compiled data on potential deposits of feldspar for future consumption. Present mines worldwide are adequately meeting the need for raw feldspar.

The United States produces about \$45 million worth of feldspar annually. North Carolina generates nearly half of the raw feldspar produced in the United States. Six other states produce smaller amounts. Other countries producing feldspar include Brazil, Colombia, France, Germany, India, Mexico, Norway and Spain.

### Uses

Feldspar is used to make dinnerware and bathroom and building tiles. In ceramics and glass production, feldspar is used as a *flux*. A flux is a material that lowers the melting temperature of another material, in this case, glass. Feldspar is also used in soaps; abrasives; bond for abrasive wheels; cements and concretes; insulating compositions; fertilizer; poultry grit; tarred roofing materials; and as a sizing (or filler) in textiles and paper. Albite is a feldspar mineral and is a sodium aluminum silicate. This form of feldspar is used as a glaze in ceramics.

### Substitutes and Alternative Sources

Feldspar can be replaced by other minerals and mineral mixtures of similar physical properties. Minerals that could be used to replace feldspar include pyrophyllite, clays, talc, and feldspar-silica (quartz) mixtures. The abundance of feldspar will make these substitutions unnecessary for the foreseeable future.

surroundings contained no meteorite chunks that I could find. There was, however, a very old and rusted wire and vinyl flag (like the ones used to mark utility lines) placed near the center of the crater. Odd, I thought. Had someone found this spot and marked it? Perhaps they had already found any meteorite fragments that may have been there.

From the promontory I looked out on what looked like a sea of rock. Below me to the southwest were the original crater and the smaller one that I had found. To the northwest though was a rather startling site: there was a string of 6 or 7 craters scattered along the slopes of the next ridge. Wow! This had been an entire swarm of meteorites!

I returned to get Peg and we investigated the new craters. I didn't take long for my excitement to turn to dismay. The first three craters also had the little wire and vinyl flags in them. One crater had a pushed up area in the center - a classic rebound feature - with fragments of iron sticking up out of the mound and a flag stuck right into the mound. OK, whom-ever put out the flags knew something I didn't. They surely wouldn't mark an impact and just leave meteorite fragments lying around.

I was now sure that these were impact

craters from either aerial bombs or some sort of artillery. What confused me now was why the fragments looked so much like meteorites and why we had not found a single fragment with the telltale signs of something man made. I no sooner had that thought than I found my answer: a rounded piece of iron with a bit of brass imbedded in it and marks along the rounded side that were obviously man made. I had either found an incredibly rare iron and brass meteorite or we had been hunting for artillery shell fragments all day.

Over the next several days we found bits and pieces of metal, old belt buckles, bullets, shell casings and even an old ammunition clip. The area had apparently been a gunnery range of some sort during WWII and decommissioned. I am guessing that the little flags must have come from people identifying where ordinance had landed and trying to determine if anything live could be left.

It took several days for the smirk to leave Peg's face since she had asked me more than once that first day of hunting if I was sure that these were meteorites. "Sure" I replied. "This is probably the greatest meteorite find ever made in California. Trust me." 🖱

## The Mineral MICROCLINE

### *Amazonite in detail*

**Chemistry:**  $KAlSi_3O_8$ , Potassium aluminum silicate.

**Class:** Silicates

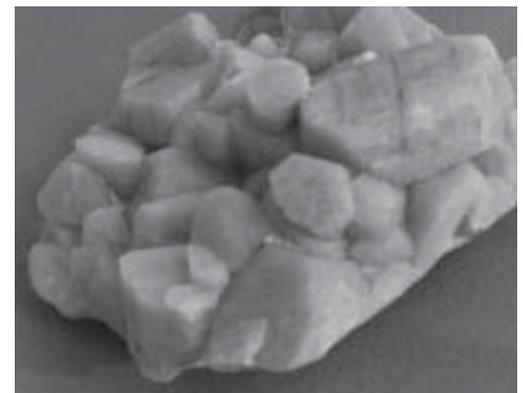
**Subclass:** Tectosilicates

**Group:** Feldspars

**Uses:** Ornamental stone, in the manufacture of glass, enamel and porcelain products and as mineral specimens.

Microcline is a common, but not a well known mineral and has been used as a semi-precious stone under the names of Amazonite and Perthite. Amazonite is a variety that is deep green and is suitable for carving and polishing. The perthite variety is a striped, veined or almost zebra patterned stone, that is produced from lamellar intergrowths inside the crystal. These intergrowths result from compatible chemistries at high temperatures becoming incompatible at lower temperatures and

thus a separating and layering of these two phases. The colored stripes are microcline and the white or clear stripes are plagioclase feldspars. If there is more plagioclase than microcline it is called "antiperthite."



Amazonite Microcline: Lake George, Colorado

Continued on next page

Microcline is a polymorph of other minerals that share the same chemistry but have different crystal structures. If positive identification can not be made by field methods, then the specimen may be referred to as a potassium feldspar or K-spar. The other k-spar minerals are sanidine, orthoclase and anorthoclase. The differences between these minerals are minor in hand samples but microcline tends to be deeper colored, is usually striated on cleavage planes and is the only one that can be, but is not always, a deep green (amazonite).

Twinning is common in all feldspars and follow certain twin laws such as the Al-



*Microcline Var. Amazonite Baveno Twin*  
Collected 1986 from the old CSM Claim.  
Copyright Jack Thompson. All rights reserved.

bite Law, the Pericline Law, the Carlsbad Law, the Manebach Law and the Baveno Law. Albite and Pericline Law type twinning produce stacks of twin layers that are typically only fractions of millimeters to several millimeters thick. These twinned layers can be seen as striation-like grooves on the surface of the crystal and unlike true striations these also appear on the cleavage surfaces. Albite and pericline twinning is more common in plagioclase feldspars than with microcline. The Carlsbad Law twin produces what appears to be two intergrown crystals growing in opposite directions. Two different twin laws, the Manebach and Baveno laws, produce crystals with one prominent mirror plane and penetrant angles or notches into the crystal. Single crystals showing a perfect twin are rare and are often collected by twin fanciers.

Well-formed crystals can be quite striking in appearance. At some localities fine amazonite clusters are intermixed with smoky quartz crystals and this results in an outstanding classic mineral specimen. **PHYSICAL CHARACTERISTICS:**

**Color:** is usually off-white, yellowish, flesh pink, brown or green.

**Luster:** is vitreous to sometimes pearly or dull if weathered.

**Transparency:** crystals are translucent, but usually translucent to opaque.

**Crystal System:** is triclinic; bar 1

**Crystal Habits:** include blocky, or tabular crystals. Crystals have a nearly rectangular or square cross-section with slightly slanted dome and pinacoid terminations. Twinning is common. Crystals can be twinned according to the Albite, Pericline, Carlsbad, Manebach and Baveno laws. Microcline can be found as a major rock forming component in granites, syenites and in metamorphic gneisses.

**Cleavage:** is perfect in one and good in another direction forming nearly right angled prisms.

**Fracture:** is conchoidal.

**Hardness:** is 6 - 6.5.

**Specific Gravity:** is approximately 2.5 (average)

**Streak:** is white.

**Associated Minerals:** quartz, muscovite and plagioclase feldspars.

**Other Characteristics:** Lamellar twinning may cause a grooved effect on crystal and cleavage surfaces that appear as striations. Perthite intergrowths cause a striped appearance in some specimens.

**Notable Occurrences:** include Pikes Peak region of Colorado and North Carolina among other sites in the USA; Russia; Norway and Madagascar.

**Best Field Indicators:** occurrence, twinning, color and luster.

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## FIELDTRIP SAFETY

### Sun Safety

Do you ever hunt rocks on a warm to hot day? Garden? Hike? Or something else active? Then, in much of the United States, you'd best learn to recognize the symptoms of things going wrong when we get too hot.

HEAT CRAMPS are the less serious, but still dangerous result of too much heat. These are spasms of the muscles brought on by exertion in hot weather. Many times, the calves are the first muscles affected.

What causes cramps? Intense sweating followed by drinking of salt free water. They are more likely to occur if you're out of shape, in poor health, tired, or have been drinking alcohol. BUT, they can occur to anyone! To avoid cramps, take it easy in hot weather, eat salty foods or take salt tablets, or drink athletic drinks that have salt in them. If cramps occur, stop, get in a cool place and rest, stretch and message the cramped muscle. Drink something salty.

HEAT EXHAUSTION occurs when you run out of body salt and/or water. Symptoms are fatigue, lightheadedness, thirst, maybe cramps, spasms, nausea and/or vomiting. Mental ability will be normal. Low grade fever (99 to 102F), a rapid pulse, and dehydration are often present.

In HEAT STROKE, the most serious effect, the individual will have a high fever (104 to 106F). There will be mental confusion, unusual behavior, convulsions, or coma. The blood pressure may be dangerously low from shock.

IMMEDIATE CARE for heat exhaustion or heat stroke includes moving the individual to air-conditioning, lying on their back, with a fan if available. Remove or loosen tight clothing, place cool compresses on forehead, neck, and under arms. You may sprinkle water on them, but do not put them into a tub or swimming pool. If they vomit, give them nothing by mouth. Otherwise cold, salt-containing liquids will help. Use 4 teaspoon salt in 1 quart water and give them 4 oz. every 15 minutes. If symptoms persist, or if they are unconscious, transport immediately to a hospital.

Remember, some people tolerate heat better than others. Even though you feel fine, if any of the above symptoms starts, act immediately. Continuing on and insisting "I'm O.K." or "I'll be O.K. in a minute." is NOT the way to go. It can only make things worse.

AFMS website: [www.amfed.org](http://www.amfed.org)

JUNIOR ACTIVITIES

**E-Z ROCK & MINERAL GUIDES FOR KIDS**

*Jim Brace-Thompson, Junior Activities Chair AFMS*

There are a great many beautifully illustrated guidebooks out there for learning about and identifying rocks and minerals, with glossy, full-color photos and lots of helpful information about mineral characteristics. However, a lot of these can go into quite a bit of technical detail and they can be a bit pricey for a child's budget. Fortunately, there are some nice alternatives in the form of what I call "E-Z Rock and Mineral Guides."

Of course, the old stand-by has long been Zim and Shaffer's "Rocks and Minerals: A Guide to Familiar Minerals, Gems, Ores and Rocks," put out by the Golden Guide Series. In fact, my copy even states "Easy-to-Use" right on the cover. It's inexpensive, thorough, and at a level many kids can follow, although even this handy little pocket book goes into quite a bit of text at times.

A nice alternative I've found are "quick-guide" sheets. These consist of convenient fold-out sheets of heavy cardstock that have been laminated. They have an abundance of colorful photos of the most common rocks and minerals and take an approach that is less text-heavy than a book. Instead, the emphasis is on visual learning, with useful diagrams, photos, and artwork supported by a minimum of text that conveys "just the facts, ma'am."

Over the years, I've collected four of these: 1) "Minerals" Quick-Guide to Mineral Identification" (put out in 1998 by Bob Brumbaugh as part of Bob's Geology Guide Series and distributed by Local Birds, Inc., P.O. Box 620491, Woodside, CA 94062, phone 650-367-1986); 2) "Earth Science" (put out by the Quick Study Academic guide series and published in 2000 by BarCharts, Inc., of Boca Raton, FL; web site <www.quickstudycharts.com>); 3) "Rocks & Minerals" (another in the Quick Study Academic guide series); and 4) "Geology: An Introduction to Familiar Rocks, Minerals, Gemstones & Fossils" (part of the Pocket Naturalist series of Waterford Press; phone number 800-434-2555; web site <www.waterfordpress.com>).

Convenient, visual, basics-level "E-Z Rock and Mineral Guides" like these are a great and inexpensive resource for the juniors in your club to learn while - as always - having fun!

AMFS Newsletter - June & July 2004

**The New Member's Essential Guide to Prospecting**

**Guide to Prospecting  
July 17, 2003  
The Essential Guide to Prosepcting**



In this class new members will learn where to look for gold and other minerals, find out how to own mineral land through the claim process, and review the basic tools and equipment you will need in the field. Participants will discover various gold recovery methods and practice the basics of gold panning. The class includes an introduction to geology, rocks, minerals, gems, and instruction in basic prospecting techniques. This class is expected to fill quickly, so register early! This is a joint class between the Colorado Springs Mineralogical Society and the Gold Prospectors of Colorado.

- Time:** 10:00 a.m. to 12:45 p.m.
- Place:** Western Museum of Mining and Industry (1025 North Gate Road, Colorado Springs).
- Fee:** There is no fee for members of CSMS or GPC. Bring a sack lunch to enjoy after the class for more discussion of prospecting, mining, minerals, and adventure. A special tour of the museum is included.
- Register:** Call the Western Museum of Mining and Industry at 719-488-0880 to register today. The class is limited to 25 participants.

<p><i>"Looks like the Lays are back from another rockhound trip" via Rock Chips 2/94</i></p>	<p><b>KRYSTALS</b> Gems Minerals Jewelry Crystal Skulls by Appt. Only <b>719-531-7203</b> Joe &amp; Marylee Swanson Colorado Springs, CO Krystals@webtv.net</p>
<p>(719) 633-1153</p> <p><i>Ackley's</i> <b>Rocks &amp; Stamps</b></p> <p>RHONDA JO HART ART &amp; HELENA ACKLEY OWNERS</p> <p>3230 NORTH STONE AVE. COLORADO SPRINGS, CO 80907</p>	<p><b>DICK'S ROCK SHOP</b> (719) 390-7788</p> <p>CABS Lapidary Equipment</p> <p>SLABS Silversmithing Supplies</p> <p>7310 South Hwy. 85/87 Fountain, Colorado 80817 Diana Wing Celebrating our 25th Year</p>
<p>Minerals Fossils Artifacts Books Beads Custom Jewelry &amp; Repair Rough Turquoise</p> <p><b>Claim Jumper's Rock Shop</b> Boyd Astemborski, Owner</p> <p>(in the penny arcade)</p> <p>14 ARCADE (719) 685-5136</p>	<p><b>Steve &amp; Peggy Willman - Minerals</b> <b>Sangre de Cristo Gallery</b></p> <p>114 Main Street, Westcliffe, CO 81252 email: gallery@ris.net 719-783-9459 Fall Hours: Friday &amp; Saturday 10:00 to 5:00</p> <p>Collectable minerals, fossils, crafts &amp; local artists</p>

**Board Meeting:** 1st Wednesday @ 7:00  
**Bob Landgraf:** 687-3195

Bob will be sending out an Email for the location of July's meeting.

**Camera Club:** 4th Tuesday @ 7:15  
 1514 North Hancock, C/S  
**Roger Pittman:** 683-2603

Sorry: The editor failed to get this information before press time. Please contact Roger Pittman for this month's competition theme.

**Crystal Study Group:** 2nd Friday @ 7:30  
 1514 North Hancock, C/S  
**Kerry Burroughs:** 634-4576

The Crystal Group has suspended their monthly meetings until Septemeber. Announcements for fieldtrips will be E-mailed directly to members so check your E-mail for the next trip.

**Faceting Group:** 4th Monday @ 7:00  
**Dave Wilson:** 635-7891

Sorry: The editor failed to get this information before press time. Please contact Dave Wilson.

**Fossil Study Group:** 4th Thursday @7:30  
**John Harrington:** 599-0989

The Fossil Study group will be meeting this month. John will be notifying members directly. If you have not been notified please call John at the number above. NOTE: This month's meeting will be at 6:00 instead of the usual 7:00.

President	Robert Landgraf	687-3195	RMLWP74@aol.com
Vice President	Drew Malin	531-7594	advanceone@adelphia.com
Secretary	Sidney Benda	488-9751	sid470@adelphia.net
Treasurer	James Bushnell	598-9262	bushy@pyramidpeak.com
Membership Secretary	Lorrie Hutchinson	382-3503	lorriehutchi@wmconnect.com
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Member-at-Large	John White	630-0300	bluski2222@msn.com
Past President	Kaye Thompson	636-2978	
Show Chairperson	Manny Sanchez	495-7858	sandstonegemtec@msn.com
Field Trip Director	Roger Pittman	683-2603	roger_pittman@tmc.com
Librarian	Mary O'Donnell	689-7209	mod4185@compuserve.com
Camera Club	Roger Pittman	683-2603	roger_pittman@tmc.com
Crystal Study	Kerry Burroughs	634-4576	kburroug@adelphia.net
Faceting Group	Dave Wilson	635-7891	dlwilson@pcsisys.net
Fossil Group	John Harrington	599-0989	harrington1@mindspring.com
Lapidary Group	Drew Malin	531-7594	advanceone@adelphia.com
Micromount	Phil McCollum		acc@frii.com
Jewelry	Rick Copeland	332-7915	rick.copeland@covad.net

**Lapidary Group:** 1st Saturday @ 10:00  
 3085 Rhapsody Drive, C/S  
**Drew Malin:** 531-7594

This month's lapidary meeting has already taken place. Several members were kind enough to bring their Lapidary project to help Drew assemble the Lapidary show case for the 2004 CSMS show. If you missed the meeting but would like to have your lapidary in the case, give Drew a call to make arrangements.

**Micromounts:** 2nd Tuesday @ 7:00  
 1514 North Hancock, C/S  
**Phil McCollum** [acc@frii.com](mailto:acc@frii.com)  
**Moyra Lyne:** 442-2673

Please contact Moyra if you need details for this month's meeting.

**Jewelry Group:** 3rd Saturday @ Noon-4:00  
 6608 Gambol Quail Drive East, C/S  
**Rick Copeland:** 594-6293

Rick and Pat Olsen have kindly volunteered to host the next meeting of the Jewelry group at their house (Rick, can you supply address and directions?). The meeting will be on Saturday, June 26 due to the CSMS show being on the third Saturday of June.

*" Our way is not soft grass, it's a mountain path with lots of rocks. But it goes upward, forward, toward the sun." - Ruth Westheimer*

## Events

**3 June - Wednesday, 7:00**  
 Board Meeting

**5 June - Saturday, Noon**  
 Lapidary Group

**8 June - Tuesday, 7:00**  
 Micromounts Group

**17 June - Thursday, 7:30**  
 General Assembly

**18 June - Friday, 10:00 AM**  
 Show Set-up

**19-20 June - Sat & Sun**  
 CSMS Rock & Gem Show, Phil Long Expo Center. This year's theme is *Rockhounding: A Family Affair*. This year's mineral is Feldspar.

**22 June - Tuesday, 7:15**  
 Camera Group

**24 June - Thursday, 7:30**  
 Fossil Group

**26 June - Saturday, Noon**  
 Jewelry Group

**28 June - Monday, 7:00**  
 Faceting Group

**3 July - Saturday, Noon**  
 Lapidary Group

**7 July - Wednesday, 7:00**  
 Board Meeting

**13 July - Tuesday, 7:00**  
 Micromounts Group

**25-27 June - Sat & Sun**

**SANTA FE, NEW MEXICO:** Show; Gem Faire; Sweeney Convention Center, 201 W. Marcy St.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Gem Faire, (503) 252-8300; e-mail: [info@gemfaire.com](mailto:info@gemfaire.com); Web site: [www.gemfaire.com](http://www.gemfaire.com).

**9-11 July - Fri, Sat & Sun**

**DURANGO, COLORADO:** Show; Four Corners Gem & Mineral Club; La Plata County Fairgrounds, 2500 Main Ave.; Fri. 11-6, Sat. 10-6, Sun. 10-5; free admission; contact Bill Birza, (970) 247-8980

Ethan A. Bronner, Editor



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## **Joining the Colorado Springs Mineralogical Society (CSMS)**

General Assembly meetings are the third (3rd) Thursday of each month, except August, 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 Study Group, Lapidary Group, Jewelry Group. For details of Satellite Group meetings, see page 9.

Yearly Dues include the 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 and Industry*, a year of learning and enjoyment, plus a lifetime of memories.    Individuals - \$15.00    Family - \$25.00    Juniors - \$2.00

If you are interested in joining the 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 website: [www.csms.us](http://www.csms.us)