

# PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

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PICK&PACK

Volume 47

Number 5

## MOUNT ANTERO GEM COLLECTING

BY AMANDA SCHAAK, CSMS



Aquamarine specimen found August of 2006. Image by Amanda Schaak

**M**t. Antero rises 14,269 feet above the Arkansas River Valley and can be seen from U.S. 285 when looking to the west. Mt. Antero is a classic Colorado gemstone-collecting locale, as well as the highest gemstone-collecting site in North America (Voynick, 2002). There are many interesting minerals that can be found on Mt. Antero including aquamarine, phenakite, smoky quartz, fluorite, biotite mica, and blue and blue-green common beryl. There is still some float to be found on the talus-covered mountain, while it is more rare to discover an intact pegmatite pocket in it's entirety.

The views from this gem collector's paradise are no doubt stunning. One of a kind experience. The collecting season on this mountain lasts only about four months due to the unpredictable weather and heavy snow storms that come in the spring and fall. Getting to this location will require a high-clearance, four wheel drive vehicle. If gem collecting is your reason for heading up Mt. Antero, it is not recommended that you hike up, but drive up as to have more time for your crystal hunt. Drastic changes in temperature and weather conditions are another good reason to have a safe vehicle retreat nearby.

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Mt. Antero is infamous for its severe weather, including powerful electrically storms, hail storms, and blizzard-like conditions that can appear out of a warm, clear sky within less than 30 minutes. These storms tend to occur more often in the afternoons and evenings, making an early start up the mountain essential to your trip. Collectors should only bring a small shovel, a spade, a hand rake, and possibly a chisel and rock hammer to dig for gems. Carry all of your food, water, and sun-screen needs with you in a pack. Expect all possible weather conditions and dress in layers, making sure you have a coat, thick clothing, and a rain parka for this trip. Most of all, enjoy what is likely one of the most scenic, memorable rockhounding experience you will every behold.

### References:

Voynick, Stephen M., 2002, Colorado Rockhounding: A Guide to Minerals, Gemstones, and Fossils, Missoula, MT, Mountain Press Publishing Company, 371 p.



Severe weather moving in rapidly on the saddle between Mt. Antero and Mt. White. Image by Amanda Schaak

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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Colorado Springs  
Mineralogical Society  
Founded in 1936

CSMS  
Lazard Cahn  
Honorary President

**Our Staff...**

Bill & Betty Cain  
Brenda Malin

Editors  
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

**Address:**

PO Box 2  
Colorado Springs, CO 80901

**Phone:**

(719) 634-8205

*PICK&PACK is published ten (10) times per year. 250-275 mailed per month.*

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## PRESIDENT'S CORNER



Drew Malin

**A**re you volunteering for club activities? CSMS is a non-profit organization made up of volunteers who enjoy our hobby. As such, we're only as good as the people who support us with their talents, time, and energies. You don't have to be a subject matter expert to contribute greatly. As many great teachers will tell you, the best way to learn something is to teach someone else. But, you don't have to be a teacher to make a difference.

Every person has a talent or skill, when combined with the whole, makes for a great organization. You can devote as much or as little time as you like; every task is important and appreciated.

That said, we have two open positions—the Board position of Treasurer and the satellite position of Pebble Pups Leader. As stated in the CSMS By-Laws, the Treasurer shall receive and safeguard all Society funds; maintain accurate records of receipts and expenditures; credit membership dues; issue membership cards; and notify the Membership Secretary for recording in an active membership file. The Treasurer shall be responsible for recurrent expenses approved by the Society or the Executive Committee (such as rent, postage, insurance, etc.) being paid when due. The records of the Treasurer shall be made available to the auditor or auditing committee in accordance with By-Laws, Article VI-(3). This important position does not require an accounting degree; if you can balance a checkbook, you can serve as Treasurer.

The other position available is that of Pebble Pups Leader. We're very fortunate to have a growing number of young rockhound enthusiasts in CSMS and should have guided activities for their benefit. Again, you don't have to be a teacher, just someone interested in sharing with children. AFMS Junior Activities Chair, Jim Brace-Thompson, has many materials available to assist in providing youth activities. A great field trip for youngster is the up-coming Fountain Creek Walk being held on May 5th.

If you feel you could be of service in these or other volunteer opportunities, please let me know. Make a difference—get involved and volunteer!

## GENERAL ASSEMBLY PRESENTATIONS

**Roger Pittman** and **Jack Thompson**, CSMS members, will present "Case Competition" in May.

June will be our Annual Show.

**Richard Parsons**, President of the Colorado Chapter, Friends of Mineralogy, will present "Among us Amateurs—the Basics of Crystal Symmetry" in July.

No meeting in August (just our Annual Picnic at the new April Fool's Claim!).

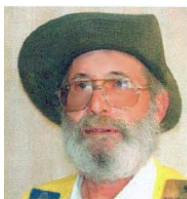
## COLORADO'S HISTORIC RAILROADS

**I**n Colorado, the history of mining and railroads go together like drill steel and hard rock, and include names such as Loveland, Palmer, and Moffit. Join us at the **Western Museum of Mining & Industry**, on May 12, 2007, at 3:00 pm, for our next Adult Lecture entitled: Colorado's Historic Railroads. This lecture will be presented by **Larry Dorsey**, who is affiliated with the Colorado Railroad Museum—recognized as one of the best rail museums in the United States. With Mr. Dorsey's expertise and his unique slide show, this will be an afternoon tour of Colorado's rail history and include virtual rides of the Durango & Silverton and Cumbres & Toltec tourist railroads. Please RSVP at 719-488-0880. Admission is free. Donations accepted.

## AFMS PRESIDENT

BY DR. ROBERT CARLSON, AFMS PRESIDENT

I recently received a letter from one of our members who was extremely incensed over the fossil bill, and the fact that it is backed by many paleontologists. This individual felt that the bill indirectly insinuated that only qualified personnel should be allowed to do science. Quite correctly, this individual pointed out that science is for everyone, not just an elite few. This individual went on to vent against paleontologists for supporting the fossil bill, and suggested that rockhounds boycott the activities supported by paleontologists to reduce their funding, when (not if) the fossil bill passes.



While I don't believe that a boycott would be effective (it would be too late, and we are too small an organization to materially affect funding levels), it got me to thinking.

Some kind of fossil bill will eventually pass, maybe not this session of Congress, but it will pass. We can fight it, we can modify it, but we cannot stop it. Too many paleontologists and their allies are behind it. So, what do we do then?

What if all of the fossil collectors in clubs affiliated with the AFMS became "Professional Collector"? There are all kinds of schools that offer degrees in a wide variety of subjects. Why couldn't the AFMS find a school or university that would offer an Associate Degree in Paleontology for the purpose of collecting specimens? Since the vast majority of new fossil finds have been made by rockhounds, a school or university that is interested in fossils would be happy to have an army of collectors sending them specimens for evaluation. The proviso would be that common fossils could be kept by the collector.

When some form of the bill passes, we need to carefully read the wording about what constitutes a "professional" collector. I don't think a Ph.D. in Paleontology would be required; I suggest that some lesser degree (and some lesser course of on-line studies) might do the trick.

It is a thought. If you can't lick them, join them.

## UP-COMING CLASSES FOR CREDIT OR FUN

BY STEVEN VEATCH

Although you can get Colorado School of Mines credit, anyone can attend at the reduced rate, even teenagers or older children.

### THE FOSSIL RECORDS: INTRODUCTION TO PALEONTOLOGY

Date: May 19 Time: 8:30am-5:30pm Instructor: Steven Veatch  
Location: Cripple Creek Parks & Recreation Optional tuition fee: \$30  
(payable during workshop) for .5 semester credit Registration Fee: \$69  
Contact: Cripple Creek Parks & Recreation, (719) 689-3514

Get a basic introduction to paleontology—the study of ancient life on earth and the fossils that remain. It is a field of continuous discovery where advances in technology and procedures of inquiry allow scientists to reconstruct earlier and very different worlds. Includes tour of the Florissant Fossil Beds National Monument and a visit to a commercial quarry to collect fossils.

### FIELD STUDIES IN PALEONTOLOGY

Date: June 16 Time: 8:30am-5:30pm Instructor: Steven Veatch  
Location: Cripple Creek Parks & Recreation Optional tuition fee: \$30  
(payable during workshop) for .5 semester credit Registration Fee: \$69  
Contact: Cripple Creek Parks & Recreation, (719) 689-3514

Starting from Cripple Creek, this field class offers an unsurpassed opportunity to 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.

## Upcoming Shows

### May 4-6

McPherson, KS 15th Annual Gem & Mineral Club Rock Sale & Swap.  
Marvin Lundquist, swed-erocker@mpks.net.

### May 5

Colorado Mineral Society Auction, 11a-3p, Holy Shepherd Lutheran Church, 920 Kipling St., Lakewood, CO.

### May 5-7

Mohave County Gemstoner's Annual Show, "Gems of Arizona", Kingman Academy 3410 Harrison St., Kingman, AZ.

### May 12-13

Grand Junction Gem, Mineral & Jewelry Show, Two Rivers Convention Center, First & Main, Grand Junction, CO. Info call Joe or Gaylene Montano (979) 241-7774

### May 18-19

Annual Swap, Buy-Sell-Trade. Ellinwood Park, KS 620-564-3300.

### June 7-10

RMFMS/AFMS Regional Federation show at Roswell, NM.

### June 16-17

Rocks for All Ages, NCRC 60th Annual Rock Show w/WY State Gen & Mineral Show, Casper WY. Bonnie Franz 307-265-3187.

### June 23-24

CSMS Annual Gem & Mineral Show, "Barite - the Industrial Beauty", Phil Long Expo Center, Colorado Springs, CO. info@csms.us.

### August 9-12

CONTIN-TAIL 2007. Contact: Carolyn Tunnicliff, 303-833-2939 ctunnicliff@comcast.net.

## FIELD TRIPS

### May 5

- Fountain Creek Walk to find agate, quartz, petrified wood, artifacts, etc. Contact Drew Malin at 531-7594 or advanceone@comcast.com
- Picketwire Canyon—full.

### May 28-29

- Hondo Canyon, Taos, NM. Contact Roger Pittman, 683-2603 rpittman@netzero.com

### June 30

- Mt. Antero, contact Alan & Amanda Schaak, (719) 568-0373 aman-daalece@msn.com





# Ancient Weevil Pupal Cases: Trace Fossils From Australia's Pleistocene

By Steven Wade Veatch



Curious pupal cases made by prehistoric weevils, together with worm burrows, are found as trace fossils in rock exposures of the Upper Bridgewater Formation along the western coastline of the Eyre Peninsula in South Australia (Flint, 1992; Flint and Rankin, 1991; Rankin and Flint, 1992). According to Parker and Flint, the Upper Bridgewater Formation is a middle to late Pleistocene aeolin calcarenite (a wind-blown, consolidated gritty calcareous sandstone). These trace fossils are found inland from the coast for a distance of about 40 km. Microscopic analysis of these ancient pupal cases shows they are made of gritty sand and gravel that were cemented by calcite over thousands of years. These cases are thought to have contained the pupae *Leptopius duponti*, a medium-size, soil-inhabiting weevil or snout beetle of the family Curculionidae. The Curculionidae are one of the largest families of organisms with at least 44,000 described species (Grimaldi and Engel, 2005). Adults of most species of this family have a characteristic elongated snout or *nostrum*. At the end of the well-developed snout is a small pair of mandibles for biting and chewing food.



Fossil pupal cases from the Bridgewater Formation resemble small elongated eggs. These cases have a hole where the fossil organism exited. These trace fossils are characterized by their strong cementation and a hollow interior. Specimen from the S. W. Veatch collection. Photo by S. W. Veatch

The adult female *Leptopius duponti* not only relishes the foliage of acacia trees as food but also carefully lays her eggs on the leaves. When the larva hatch they move about underground to feed on roots and when ready to pupate, they form a chamber or pupal case out of the soil. After their metamorphosis, they cut a hole near one end of their pupal case to leave and then burrow to the surface, where they quickly climb the acacia trees to feed.

The pupal cases are usually too delicate to survive for any length of time, but occasionally some of the empty cases remain underground where they become petrified by calcite. (Tilley, et. al., 1997). Some of these pupal cases in the Upper Bridgewater Formation are estimated to be 40,000 to 100,000 years old.



*Leptopius duponti* is common in Australia where they are called "wattle pigs." The body length of *Leptopius duponti* averages 20 mm. These slow moving weevils are plant eaters. Photo by David Nelson, used with permission.

## References cited:

- Flint, R.B., 1992, Elliston, South Australia, Sheet SI3-6, South Australia Geological Survey, 1:250,000 series, explanatory notes.
- Flint, R.B. and Rankin, L.R., 1991. Kimba, South Australia, Sheet SI53-7, South Australia Geological Survey, 1:250,000 series, explanatory notes.
- Grimaldi, D. and Engle, M.S., 2005, The Evolution of Insects: New York, Cambridge University Press, 689 p.
- Parker, A.J., and Flint, R.B., 2005. Yardea, South Australia Sheet SI53-3, Geological Survey of South Australia, 1:250,000 series, explanatory notes.
- Rankin, L.R., and Flint, R.B., 1992. Streaky Bay, South Australia Sheet SI53-2, South Australia Geological Survey, 1:250,000 series, explanatory notes.
- Tilley, D.B., Barrows, T.T., and Zimmerman, E.C., 1997. Bauxitic Insect Pupal Cases from Northern Australia. *Alcheringa* 21, p. 157-160.

## Classification:

Kingdom	Animalia
Phylum	Arthropoda
Class	Insecta
Order	Coleoptera
Suborder	Polyphaga
Superfamily	Curculionoidea
Family	Curculionidae
Subfamily	Leptopiinae
Genus	<i>Leptopius</i>
Species	<i>duponti</i>

## TIPS:

**Tumbling Soft Material**—start with the second coarsest grit. Fill the tumbler 3/4 or 7/8 full so the stones will roll and not fall. About 1/4 the normal amount of cerium oxide polishes better than the usual polishes. **Get More Out of Your Tumbling**—add specially shaped stones to your regular stones. Hearts, crosses, and elongated triangles made by cutting a rectangular slab across the diagonal are some of the possibilities. **Best Thread for Beads**—depends on the beads. Use strong, non-abrasive resistant silk on non-abrasive beads such as pearls, turquoise, mother-of-pearl, and lapis. Use abrasive-resistant nylon on beads such as onyx, metals, and quartzes. Before using nylon, pre-stretch overnight with a weight. **Tiger Eye Stones**—Try cementing three pieces of tiger eye together so that the grain is perpendicular to the next. Cabochons and other stones can then be cut with interesting chatoyancy effects. From the 2007 SCRIBE CD; assembled from various club newsletters.

## NOTES ON BARITE BY JACK THOMPSON, CSMS

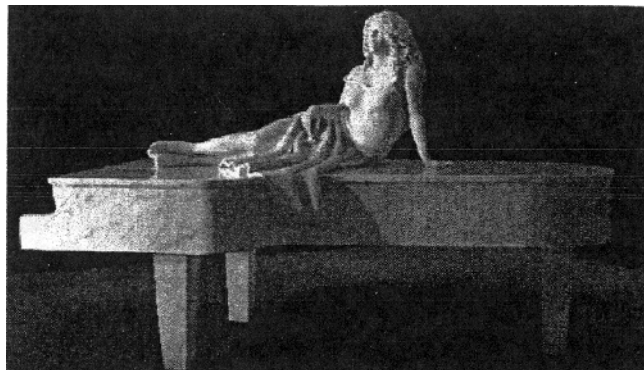
**B**arite is the featured mineral of the Pikes Peak Gem & Mineral Show for 2007. Barite got its name from the Greek work for heavy “Barys”. Early day miners called barite heavy spar, with a specific gravity of 4.5, it is one of the heaviest minerals. Barite crystallizes in the orthorhombic system, with no twinning apparent. The cleavage is perfect on the (001), less perfect on the (210), and imperfect on the (110) Miller indices.

The chemistry of barite is  $\text{BaSO}_4$ , and only with celestite does it combine and form a continual series (solid solution). The colors of barite make it one of the desirable mineral specimens to collect. Color ranges from clear colorless to white, and all the way to black, with honey brown and gray blue being the most common. The crystals range from spectacular sharp prism all the way to those with rose like petals. The common pseudomorphs of barite is crystalline quartz and chalcedony, but other mineral pseudomorphs of barite do exist; they are not as common.

Industrial uses of barite are as follows: adding weight to paper and glass, blocking radiation and x-ray, and adding weight to oil well drilling operations thus preventing blow out of gas or oil under high pressure.

Barite is one of the most common minerals found in our mineral realm. Of the hundreds of locations worldwide, only a very few will be mentioned here. England leads the world in very fine barite locations, some with extremely large crystals (over 100 lbs) come from lead mines around Derby and Cumbria. In China, you find many localities with an abundance of barite crystals, although most of the crystals are heavily oiled and not desirable in mineral collections. Romania along with Poland, Czech Republic, and Bulgaria have all produced colorful, well crystallized barite. In France, at Puy de Dome and in the old mines around Freiberg, Germany barites of exceptional quality were found. In the Rock Candy mines near Grand Forks, British Columbia, Canada, many large groups of golden tabular crystals have been found. In the US, Colorado ranks high on the list for collectable barites. Barite in Colorado comes from ore veins, septarian nodules, and from some pegmatites. Some of the more noted locations for collecting crystals are: the Gilman district in Eagle, CO that produces very lustrous gold color crystals. The Book Cliff of Mesa, CO where the flawless, water clear prismatic crystals are found. These are among some of the finest barites found anywhere. The Sherman Tunnel and the Black

*(See Barite on page 6)*



“**American Woman**” by Colorado artist Francisco. Francisco’s new marble sculpture will be on display at the Pikes Peak Gem & Mineral Show 2007. This life-size awe-inspiring masterpiece was sculpted from a 21-ton block of marble quarried from the Colorado Yule Mine in Marble, Colorado. Autographed photos of the “American Woman” and autographed chips of marble will be given away at the Show.

### **43rd Annual Pikes Peak Gem & Mineral Show**

Featured mineral—Barite

When: June 23rd & 24th, 2007  
Saturday 10AM-6PM  
Sunday 10AM-4PM

Location: Phil Long Expo Center  
1515 Auto Mall Loop  
Colorado Springs, CO 80920

For more information:

Web site: [www.csms.us](http://www.csms.us)

Email: [Info@csms.us](mailto:Info@csms.us)

Phone: (719) 683-2603

Show proof of membership in a mineral club (membership card or newsletter with your name on it) and get a dollar off show admission.

Discount admission coupons will also be printed in The Gazette.

Free admission to Boy Scouts, Girl Scouts, and Scout Leaders in uniform.

Don't miss our Silent Auction!

#### **\*\*\* Thanks to our Sponsors \*\*\***

- The Cripple Creek and Victor Gold Mining Company
- The Gazette
- The SilverWood Hotel & Conference Center



## BARITE (continued from page 5)

Cloud mines with their phantom growth patterns are among the most interesting barites to be found. Hart-sel barite mine in Park, CO produces single blue blades, as well as some cabbage head groups. Stone-ham in Weld, CO is one of Colorado's best known barite localities. These are crystal blue in color with long prismatic crystal shape. Some single and groups of barite crystals have been found with yellow calcite crystals making beautiful, exceptional specimens. In the Creede district of Mineral, CO lots of white to light pink bladed barite has been found. Colorado Springs is not lacking in the production of barite. Barite is found in septarian nodules at 30th Street and King Street, 21st Street at Moreno, and Ft. Carson and Academy Blvd.

So get out and hunt! There are barites to be found; you just have to look for them.

## HOLCIM FIELD TRIP BY ROGER PITTMAN, CSMS

**W**ell, we're off to a good start this year! About thirty collectors showed up for our first field trip of 2007. We had invited the Boulder-Flatiron Club and the Colorado Mineral Society from Littleton to accompany us this year. We had



64 people signed up. The turn out was a mixed blessing/disappointment, because we had turned down people who hadn't signed up by the April 1st deadline who would have been able to go if we had only

known that people who had signed up weren't coming. It did, however, allow the people who did come to collect profusely. We collected plates of calcite two feet long with dozens of 4" crystals, smaller plates of calcite with 2" crystals. Fossil clams and, of course, the pyrites that the quarry is known for. The quarry foreman, **Joe Lamanna**, was GREAT! He took us to the places where he had seen specimens of interest and let us collect almost to our heart's content. We had a few collectors who would have stayed several days.

Holcim has been a great friend to the mineral collectors of Colorado for many years, allowing not only our club but many Colorado clubs to come and collect at their quarry. In this day where everyone wants to sue someone, it is rare to be allowed into a working quarry.

## RMFMS PRESIDENT'S MSG

BY RICHARD JAEGER

**T**here are several items of importance which I need to mention. **Jim McGarvey**, our RMFMS Webmaster, would like to have another person on the Webmaster Committee, preferably one who is familiar with maintaining a website and willing to volunteer their time to maintain ours. Our RMFMS website has had well over 15,000 hits; it is important to our Federation as a means of communication and sharing information. I find that Jim has been paying upwards of \$300/year out of his own pocket to have the website maintained and postings made; we cannot expect him to continue doing so. Jim knows what kind of information needs to go on the website—and what information needs to be left off the website. I know that a number of our member clubs have a website and webmasters; if any of you would be willing to help Jim, please let me know.

**DeLane Cox**, our RMFMS Secretary, will soon be sending out information on the upcoming AFMS/RMFMS Convention and Show to be held in Roswell, NM in June. All officers and committee chairs need to get their reports in to DeLane as the deadline is about upon us as you receive this newsletter. You will also be receiving your Delegates Form to the convention. Please appoint your delegates and send the information to **Carol Syska**, our Credentials Chair. It is important that we have a quorum for the Delegates Meeting. If no one in your club is planning on being in Roswell, please contact your State Director and ask him or her to serve as a proxy for your club—or contact a nearby club to see if they have someone who can serve as your proxy.

Our Nominating Committee is also hard at work. **Judy Beck** is serving as chair of this committee and is being assisted by **Walt Wells** and **Roger Pittman**. They are working to ensure that we have an outstanding slate of officers to present to the House of Delegates at Roswell. I want to thank them for their efforts, and please seriously consider taking a position if asked.

I am looking forward to visiting with as many of you as I can in Roswell; it should be a great show in all respects.



## PALEOPHILES AND MINERAL ENTHUSIASTS

BY MARGE COLLINS, AFMS PROGRAM COMPETITION

Your help is needed! Newcomers to the Earth Science hobby want to learn more about all the aspects of this hobby. Why not share and explain your special interest to others in a presentation? First, you can show it to your Club and others that aren't far away. Then share it with a wider audience—across the county—by entering AFMS Program Competition.



You can inspire and inform current and future generations of neophytes about your favorite fossil or mineral species, about a classic location, a special museum, a notable field trip, etc. There are so many stories to share! You make the choice! First, make an outline to organize your thoughts, then start taking pictures to illustrate your "story" with that new digital camera whether still or video (or a good 35mm camera). If you've gone digital, you don't have to use a "professional" software program—you can simply make a collection of images on a CD with a written script. (35mm slides and a typed script are still acceptable).

Just two warnings: first, if you use presentation software, don't be tempted to use transitions, animations, etc. An audience watching an otherwise boring business presentation might appreciate some of those gimmicks for variety, but engaged viewers find them distracting. Second, don't overload the audience with images or information. You don't need to show every image and tell "everything" you know. The goal is to whet viewers' appetite, and inspire them to search for more information on their own. In other words, a relatively short presentation—35 to 40 minutes is good.

There are a few more tips and suggestions that can lead to a prize-winning presentation. They're listed on the AFMS website <[www.amfed.org](http://www.amfed.org)> as are deadline, entry form, etc. You can also contact your Regional Program Librarian or AFMS Program Competition Committee c/o Marge Collins, phone: 269-695-4213 or email: [Margaret@qtm.net](mailto:Margaret@qtm.net) (If you don't receive a prompt reply, phone—gremlins can mysteriously snag email!)

Sharing your passion for our hobby can lead to many rewards: a cash prize, recognition, and best of all, the satisfaction of knowing your inspiring others.

## AMAZING ROCK CANDY

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

To bring back childhood memories or create new ones for the younger generation, this is a good exercise in science, patience, and anticipation of the sweet outcome!

You'll need: 1 cup water, 2 cups sugar, paper clips, food coloring, quart jars or glass, cotton string, ice cream sticks or pencils, flavoring. It can take a few days for the sugar crystals to harden into rock candy (the patience part). Please have an adult's supervision for this activity.

Sterilize the glass jar and paper clip by boiling both in water for a few minutes.

Tie a short piece of kitchen string to the middle of a pencil or popsicle stick. Attach a paper clip to the other end of the strings (The clip will weigh down the string—this is important later). Lay the pencil over the cup so that the paper clip is suspended in the sugar solution but does not touch the bottom of the cup. Moisten string lightly and roll in sugar (this helps the crystals form on the string).



Heat 1 cup water to a boil. Dissolve 2 cups sugar in boiling water. Add a few drops food coloring and flavoring (vanilla, maple, almond, or peppermint extract) if you like.

Pour sugar syrup into jar and leave for 2 to 3 days or until crystals form on the string.

Keep checking the cup until the sugar crystals have hardened around the string. Crystals should start to grow in 2 to 4 hours and continue to grow for a couple of days. For big crystals—fast—heat the sugar-water solution a second time and dissolve extra sugar in it. The

## CSMS MEMBERS HONORED

The Colorado Springs Senior Citizens Center recently honored two CSMS members at their annual volunteers banquet. **Paul Berry** and **Dave Wilson** were recognized for their service as faceting teachers at the Center. You may view their photos on the "wall of honor" currently displayed at the Senior Citizens Center.

Congratulations to Paul and Dave for their dedication to upholding the CSMS goals of promoting Earth Sciences through education.

*Editor's Note: This would make a great nomination for our RMFMS 2008 ACROY if someone would take the time to submit it to me for forwarding to RMFMS.*

**IT'S NOT TOO LATE**—To continue all the fun and educational activities with CSMS, please submit your 2007 dues. \$20 individuals, \$30 family, and \$2 Juniors. Members Directory is being finalized and will be published to members in May.

## FRA MERIT BADGE PROGRAM

BY JIM BRACE-THOMPSON, AFMS

Here are answers to 4 common questions I've received about the AFMS Future Rockhounds of America merit badge program.

### How Does the Merit Badge Program Work?

The program consists of an FRA membership badge, 9 merit badges (Rocks & Minerals, Earth Resources, Fossils, Lapidary Arts, Collecting, Showmanship, Communication, Field Trips, and Leadership), and a "Rockhound Badge" for kids who earn 6 of the 9 merit badges. A 100-page guidebook describes and outlines requirements for each of the 9 merit badges. There are 52 activities to choose from, or about a half dozen activities per badge, with kids required to complete only 3 activities to earn any particular badge. Checklists in the guidebook make it easy for your leaders to sign off on activities as junior members complete them. In addition, brief back-up pages and suggestions help leaders guide their kids through each activity. The

guidebook is available both in hardcopy format (photocopied) and on the AFMS web site <[www.amfed.org/fra/meritbadge.htm](http://www.amfed.org/fra/meritbadge.htm)>. To save on costs to the program, which is being provided entirely free, I encourage you to download a copy of the guidebook and its checklist sheets from the web.

### How Do I Sign Up the Kids in My Local Club?

The program is for clubs with youth members enrolled in the AFMS Future Rockhounds of America (FRA). To enroll your kids, contact me (805-659-3577 or [jbraceth@comcast.net](mailto:jbraceth@comcast.net)). All you need is a group of kids (up to age 18), a sponsor, a name, and an application to FRA (application available at AFMS web site). Your club must be affiliated with the AFMS (CSMS is). The number of youth is not important; you can have as few as 1 or 2 and as many as you can handle.

### How Do I Order the Merit Badges?

Because this is a new program and we don't have a history as to what potential supply-and-demand will be, I'm keeping distribution of badges centralized, at least for the first year or so. (For budgetary reasons, badges are available on an as-needed basis; request from me as earned.)

### How to Go About This?

Make multiple copies of the activity checklists that are included in the merit badge guidebook. For each child, check off activities as they are completed. When at least 3 activities are checked off for any one badge, both the child and youth leader sign the checklist, write in the mailing address of the youth leader, and send it to me: Jim Brace-Thompson, AFMS Juniors Activities Chair, 7319 Eisenhower Street, Ventura, CA 93003. I'll record the info and send the badge. To speed the process, fulfillment info may be sent via telephone or email.

I know this is a bit cumbersome and will mean a lag time in getting badges to kids, but I decided it's best to use this centralized approach, at least in the beginning, in order to monitor how much the program is being utilized. It's also necessary in order to keep tabs on which activities are most

popular and how many badges actually get awarded.

### How Can We Make the Merit Badge Program Better?

I welcome feedback, suggestions for improvements to the existing activities, and ideas of new activities and badges to add to the program. Let's all pitch in to provide an educational program by which kids learn, earn rewards, and—as always—have fun!

## JUNIOR CASH AWARD AT 2007 AFMS/IRMFMS SHOW

There is still time for juniors to get out into the field and collect a specimen for entry into the Junior Cash Award. This program is so easy that almost every youngster can participate. The rules are simple: 1) The specimens must be collected by the junior. 2) He/she must prepare it for exhibit. 3) He/she must make a label with the name of the material and where it was found. 4) The junior must get the specimen to the show. JUNIOR DOES NOT NEED TO BE PRESENT AT THE SHOW; any club member can bring the entry. 5) The junior must fill out the registration form and send it to the Junior Chairman prior to the show (available at [www.amfed.org](http://www.amfed.org)).

All entries will be judged by a panel of judges. One will be for the ages of juniors up 12 and the other for juniors 13-17. Both winners will receive a \$25 check. All who enter will receive a certificate and other goodies.

Please encourage all juniors to participate!

**Diane Weir**, Junior Chairman

2300 S. Union Avenue, Roswell, NM 88203; (505) 622-5679, [dcweir@dfn.com](mailto:dcweir@dfn.com).

## MAY BIRTHSTONE—EMERALD

FROM MINERAL.GALLERIES.COM

The gemstone Emerald is the green variety of the mineral Beryl. The wonderful green color of emerald is unparalleled in the gem kingdom. Emerald's precious green color is caused by small amounts of chromium and enhanced by traces of iron. Unlike other beryls, emeralds



usually contain inclusions and other flaws. The flaws are not looked on as negative aspects for emerald like they would be for other gemstones. Indeed, these flaws are considered part of the character of the stone and are used to assure the purchaser of a natural stone.

Even artificial emeralds often contain flaws, however, as the process of growing artificial emeralds mimics the way nature does it (slow crystal growth from a molten mix).

Nearly all emeralds, even many "natural" stones, have been treated to improve clarity, generally by immersing them in oil. For gemstones, a green colored oil is often used, "improving" the color as well. Unfortunately, this oil may evaporate over the years, making flaws appear where none were visible at the time of purchase. A high-grade mineral oil may be used to improve the appearance again.



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>MAY 2007 — CSMS CALENDAR</b>						
		<b>1</b>	<b>2</b>	<b>3</b> 7p Board Meeting	<b>4</b>	<b>5</b> Cinco de Mayo Fountain Creek; Picketwire Canyon
<b>6</b>	<b>7</b>	<b>8</b> 7p Micromounts Group Mtg	<b>9</b>	<b>10</b>	<b>11</b> 7:30p Crystal Study Grp Mtg	<b>12</b> 3p—Colorado's Historic RRS, WMMI
<b>13</b> Mother's Day	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b> 7:30 General Assembly	<b>18</b>	<b>19</b> 12n Jewelry Group Mtg
<b>20</b>	<b>21</b> 7p Faceting Grp Mtg	<b>22</b> 7:30p Camera Club Mtg	<b>23</b> 7:30p Fossil Study Grp Mtg	<b>24</b>	<b>25</b>	<b>26</b>
<b>27</b>	<b>28</b> Memorial Day	<b>29</b>	<b>30</b>	<b>31</b>		

"All that I am or ever hope to be, I owe to my angel mother." - Abraham Lincoln

## 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;  
6608 Gambol Quail Dr E; contact  
Rick Copeland: 594-6293 or Bill  
Arnsen: 749-2328

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

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

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

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

## REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS

May=Faceting	August=Picnic!!	November=Camera
June=Fossil	September=Micromounts	December=Everyone
July=Lapidary	October=Board	

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	Vacant		
MEMBERSHIP DIRECTOR	Bill Cain	634-8205	bcain2@earthlink.net
MANAGING EDITORS	Bill & 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	687-3195	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@comcastnet
FACETING GROUP	Dave Wilson	635-7891	dlwinlson@pcisys.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@adelphia.net
MICROMOUNT GROUP	Phil McCollum		acc@friei.com
PEBBLE PUBS	Vacant		

## COLORADO SPRINGS MINERALOGICAL SOCIETY

Minutes, General Assembly & Annual Banquet

April 19, 2007

President, Drew Malin, called the meeting to order at 7:30 pm.

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

### **Treasurer's Report**

No report was given. Jim Bushnell resigned for personal reasons; the Board will appoint an interim Treasurer and perform the annual audit.

### **Guests:**

New members Mike Pack and DeAn Beukema, along with visitors Jim Evans (Albuquerque Gem & Mineral Club) and Donna Gibson, were recognized.

### **Satellite Groups:**

- Camera Club: Roger Pittman reported when and where Camera Club meets; May competition subject is "wheels".
- Crystal Group: Kerry Burroughs reported on the Crystal Study Group meeting.
- Faceting: Dave Wilson reported on the faceting group.
- Fossils: John Harrington reported on the meeting and slide program of the last field trip.
- Micromounters: Moyra Lyne reported the Micromounter's group info.
- Lapidary: Drew Malin reported on the lapidary group. No meeting in May due to Fountain Creek Field Trip.
- Jewelry: Rick Copeland reported that there has been a lot of interest in the Jewelry Club, and he is reviving the monthly meetings; first to be held on May 19th at his home, 12 noon to 3 pm.
- Field Trips: Roger Pittman announced trips to Holcim Quarry, Picketwire Canyon, and Hondo Canyon. Mt. Antero will be in June.

### **Show Report:**

- Bob Landgraf talked about the show, asked for volunteers, asked for people to put in displays. Sign-up sheets were available for all volunteer positions.

### **Old Business:**

- Terry Beh moved that we donate the beryl crystal that was donated to the Club by Jim Tezak to the new Pikes Peak Historical Society in Florissant. The general consensus was positive but actual delivery will be after the specimen is displayed at our show.

### **New Business:**

- Constitution and By-Law's revisions complete. Ray Berry moved to accept, seconded by Lou Severini, and passed unopposed.
- April Fools claims are now ours! These are the old Rocket and Blue Rock claims. Use rules are being drafted and will be made available as soon as they are complete.
- Spring Show in the Rockies, April 26, 28, 29, Bannock & I70.

### **Program**

- Joe Dorris—current discoveries of Smokey Hawk & Topaz Mountain. Thanks, Joe, for sharing this presentation!

## **NEW METHOD OF TUMBLING**

BY AL NUTILE IN TULIP CITY CONGLOMERATE

**T**he writer believes that the following idea may take much of the work from the popular method of tumbling. All of the instructions we have seen state, "Wash stones and tumble very clean between each change of grit of final materials," at the same time stating, "If liquid is too thick, add some slurr or grit from previously used material."

We know some will argue against our method, but here goes: Don't wash at all after each week of tumbling with grit! Start with #50 grit, tumbling a week. Then **don't empty the tumbler**, but add 5 teaspoons of new grit

(one step finer) to the mixture in a 3-lb tumbler. Follow this procedure through #190, #320, and #600 grit. Now, thoroughly wash the stones and tumbler before pre-polish and final polishing.

For a really glossy finish, take one or more weeks (after washing out the polishing powder) adding 3 spoons of sugar, one level spoon of *Cascade*, *All*, or any non-sudsing detergent, and add about 10 drops of muriatic acid; let stand 1 minute—open, close tub, and tumble for a week.

We have run 11 tubs using this method and found that even ordinary sandstone comes out highly glossed. Except for extra final steps, you save 3 washings and getting rid of the slurr each time. Save time, work and mess, and still gets a better polish.

## 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://cafescicolorado.org>

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

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



**Highland Park 24" Saw**

Closed Cabinet with Auto Feed, on casters, good shape, no leaks—\$2500 Dick's Rock Shop



**Mettler H33AR Electronic Scale**

160 gal max; accurate to .0001 grams. \$170 Dick's Rock Shop



**4-1/2" Trim Saw \$195**  
Dick's Rock Shop

## Mineral Sale

May 5-6, 2007

Saturday & Sunday

4 AM—4 PM

**7415 Tudor Road  
Colorado Springs, CO  
Exit I-25 #149**

Hundreds of new specimens just de-accessed from our collection and the **Last Hurrah Pocket**

Ray & Eloise Berry  
(719) 598-7877

## FOR SALE

Graves Faceting machine, extra dops, laps, and degree wheels.

Only 2 years old and in excellent shape

\$800

Bob Bernard  
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**The Colorado Springs Mineralogical Society**  
**June 23 & 24 2007**  
Phil Long Expo Center, Colorado Springs, Colorado

**REQUEST FOR NON-COMPETITIVE DISPLAY SPACE**

Name:	Society:		
Address:		Phone:	
City:	State:	Zip:	

Exhibitors are urged to bring their own cases. A limited number of club cases are available upon request. Exhibitors using club cases will need to furnish any risers, linings, extension cords or accessories as needed. **EACH CASE WILL BE LIMITED TO 150 WATTS.**

**NON-COMPETITIVE EXHIBIT**

Describe Display:

	I will bring my own case	Case Length	
	I will need a case*	Approximate Case Length*	

\*CSMS cases are 36" X 24" outside measurements

Set up is Friday 4PM until 9PM; Judge / Exhibitor conferences 1:30 P.M. Saturday

Signature of Non-Competitive Exhibitor: \_\_\_\_\_

**With the signing of this request, it is mutually agreed that the Colorado Springs Mineralogical Society, the Rocky Mountain Federation, and Phil Long Expo Center shall not be liable to any exhibitor for damage, loss or destruction of any exhibit or injury to his person for any cause and all claims for injury are expressly waived by the exhibitor.**

DEADLINE: May 15, 2007  
Applications will be  
accepted after 5/15  
on a space-available  
basis.

RETURN TO: Kaye Thompson, CSMS Show Chairman  
1830 Mesita Ct.  
Colorado Springs, CO 80906

PLEASE USE ONE FORM FOR EACH ENTRY - FORM MAY BE REPRODUCED

**The Colorado Springs Mineralogical Society**  
**June 23 & 24 2007**  
Phil Long Expo Center, Colorado Springs, Colorado

**REQUEST FOR COMPETITIVE DISPLAY SPACE**

Name:	Society:	
Address:	Phone:	
City:	State:	Zip:

Exhibitors are urged to bring their own cases. A limited number of club cases are available upon request. Exhibitors using club cases will need to furnish any risers, linings, extension cords or accessories as needed. **EACH CASE WILL BE LIMITED TO 150 WATTS.**

**COMPETITIVE EXHIBIT**

Describe Display:

	I will bring my own case	Case Length			
	I will need a case*	Approximate Case Length*			
DIVISION	CLASS	MASTER	ADVANCED	JUNIOR	SOCIETY

\*CSMS cases are 36" X 24" outside measurements

**I hereby certify that this exhibitor is a member in good standing of the RMFMS.**

**Signature of Society Officer:** \_\_\_\_\_

SIGNATURE & TITLE OF AN OFFICER OF YOUR RMFMS MEMBER HOME CLUB

Set up is Friday 4PM until 9PM; Judging will begin at 9AM Saturday, 6/23

Judge / Exhibitor conferences 1:30 P.M. Saturday

Signature of Competitive Exhibitor: \_\_\_\_\_

**With the signing of this request, it is mutually agreed that the Colorado Springs Mineralogical Society, the Rocky Mountain Federation, and Phil Long Expo Center shall not be liable to any exhibitor for damage, loss or destruction of any exhibit or injury to his person for any cause and all claims for injury are expressly waived by the exhibitor.**

DEADLINE: May 15, 2007

RETURN TO:

Kaye Thompson, CSMS Show Chairman  
1830 Mesita Ct.  
Colorado Springs, CO 80906

PLEASE USE ONE FORM FOR EACH ENTRY - FORM MAY BE REPRODUCED

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## 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 9.

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](http://www.csms.us).