# PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

March 2013 PICK&PACK

Volume 53 Number 02


## CSMS General Meeting
## Thurs. Mar 21, 2013 7PM

Jennifer Farnes, Master Faceter, will make a presentation on Faceting Secrets

## The Prospectors on theWeather Channel
## Tue. Mar 26 7 PM

Is featuring the Joe Dorris mining operation at Crystal Peak, Pilot Peak, and Mt Antero

## SILENT AUCTION *March 30, 2013*
## *10:00 a.m. to 2:00 p.m.*
## Western Museum of Mining and Industry
## 225 North Gate Blvd
## Colorado Springs, Co 80921
## Join the Fun

Bring your Donations to the Mar 21 General Meeting or to the WMMI on Mar 30. Volunteers needed to help with sale. Call Mark Lemesany 719-649-2652 or be at WMMI at 9:30 for setup.

**Some Specimens to be auctioned**.
Pictures by Frank Rosenberg

Top left, White Quartz from Ophir Tunnel Mine, Telluride; top middle, Tennantite, Gadolinite;top right, Quartz, Amethyst, Anhydrite, calcite; middle left Amethyst; bottom left, Siderite on Quartz
More pictures on pg. 8.

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 10 times each year to assist and promote the above.

***Proud Members of:***

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

Rocky Mountain Federation of Mineralogical Societies (RMFMS)
www.rmfms.org

Colorado Federation of Gem & Mineral Societies (CFGMS)

**Articles in this Issue:**



**Treats for March to be provided by the Faceting Group**

# CSMS Calendar

**March 2013**

**Tue., Mar 5—*Fossil Group*, TBD, 7 p.m., Senior Center. Looking for a new Leader**
**Thurs., Mar 7—*Board Meeting*, 7 p.m., Senior Center.**
**Tues., Mar 12—*Micromounts*, 7 p.m., Senior Center. Dave Olsen, Leader, 719.495.8720**
**Thurs., Mar 21—*Pebble Pups & Juniors,* 5:30 to 6:15 p.m. Steven Veatch, Leader, 719.748.5010**
***General Assembly*, Jennifer Farnes—Faceting Secrets, 7 p.m., Senior Center.**
**Thurs., Mar 28—*Crystal Group*, Program TBD 7 p.m., Senior Center. Looking for a new Leader.**
**Faceting Group, 7 p.m., Senior Center. Paul Berry, Leader, 719.578.5466**
**Sat., Mar 30—CSMS Silent Auction, WMMI 10AM-2PM,**
**Mar, *Jewelry Group*, By appointment. Call, Bill Arnson, 719.749.2328**
**15610 Alta Plaza Cir., Peyton**
**Mar—*Lapidary*—By appointment. Call Sharon Holte 719.217.5683**

## April 2013

**Tue., Apr 2—*Fossil Group*, TBD 7 p.m., Senior Center. Reorganization Meeting See below.**
**Thurs., Apr 4—*Board Meeting*, 7 p.m., Senior Center.**
**Tues., Apr 9—*Micromounts*, 7 p.m., Senior Center. Dave Olsen, Leader, 719.495.8720**
**Thurs., Apr 18—*General Assembly*, Program TBD 7 p.m., Senior Center.**
***Pebble Pups & Juniors.* 5:30 to 6:15 p.m. Steven Veatch, Leader, 719.748.5010**
**Thurs., Apr 25—*Crystal Group*, Program TBD 7 p.m., Senior Center. Looking for a new Leader.**
**Faceting Group, 7 p.m., Senior Center. Paul Berry, Leader, 719.578.5466**
**Apr, *Jewelry Group*, By appointment. Call, Bill Arnson, 719.749.2328. 15610 Alta Plaza Cir., Peyton**
**Apr—*Lapidary*—By appointment. Call Sharon Holte 217.5683**

**Other Events of Interest to CSMS Members**

**Sat-Sun, Mar 16-17—WIPS Founders Symposium—Ice Worlds and their Fossils. Green Center. School of Mines, Golden, Colorado. See www.westernpaleo.org for more details.**

**Fri-Sat-Sun, Mar. 22-24**, **Fort Collins Rockhounds Gem and Mineral Show**, McKee 4-H Building at The Ranch (Larimer County Fairgrounds), Loveland, CO; at I-25 exit 259; 4-8 p.m. Fri., 9-6 Sat., 10-5 Sun. Admission, adults $4/day or $7/3-day pass, students age 12-18 with student ID $1, children under 12 free with adult. See http://www.fortcollinsrockhounds.org/
**Sat., Mar 23—Event at the WMMI: Seminar led by Steve Veatch in Scientific Writing** See pg10 for details.

**Tue., Mar 26—Joe Dorris mining operation at Crystal Peak, Pilot Peak, and Mt Antero will be featured in a new Weather Channel show called "Prospectors."** It will be a reality TV series which features five groups of Colorado mineral prospectors. Rich Fretterd will also be featured. We hit one of the largest amazonite and smoky quartz pockets discovered in the Crystal Peak area last summer and this will be one of the featured "finds."

**Two Groups are looking for a Leader—Remember the Leader does not have to make a presentation—just organize them and send out e-mail reminders for the meeting.**

### Fossil Group

The Fossil group is having a Reorganization Meeting on Apr 2. All current members and anyone interested in joining the group should come with ideas. What do you want from the group meetings. What topics for presentations are you interested in? What kinds of field trips do you want to go on? Contact Jerry Suchan via e-mail, gesuchan@earthlink.net, or call after Mar 27 (303) 648-3410. Jerry will be away until Mar 27 but will be monitoring e-mail.

### Crystal Group

The Chrystal group continues to meet the 4th Thurs. each month. We need someone willing to schedule presentations and send reminders to the group.

**The Senior Center is located at 1514 North Hancock in Colorado Springs. For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms.us**

## BLACK DIAMONDS, BLACK SPINELS AND OTHER MINERALS

Mike Nelson csrockguy@yahoo.com

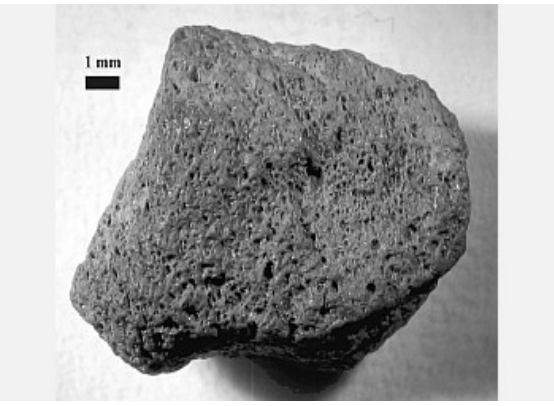



Fig. 1. Black diamond, natural, often termed carbonado. Photo courtesy of Steve Haggerty and NSF.

Fig. 2. The Spirit of Grisogono black diamond. Photo courtesy of famous diamonds.tripod.com

Fig.3. Black, non-natural diamond (enhanced), ~1 carat. Although faceted, the gem displays only the brilliant luster of diamond gems. Photos courtesy of Zales.com.

I recently received an advertisement, via the internet, for an opportunity to purchase "gem black diamonds" at a price one could not ignore. At about the same time one of the gem channels on TV was pushing the sale of black diamonds. Now, these sorts of coincidences (although Gibb's Rule #39 states *There is no such thing as coincidence*) often intrigue me so I followed up on "black diamonds" with first the question being—are there really black diamonds in nature? Short answer: yes, there are *natural* colored diamonds with the black specimens usually termed carbonado. But, there are also other non-natural (my term) black diamonds and the both of them make for an interesting story.

Black diamonds, the natural type, are polycrystalline in nature, that is, they do not have a regular crystal structure as one could observe in a *gem* diamond of clear or light color (Fig. 1). For example, clear diamonds, the gem variety, absorb white light ("normal light"), bounce it around, and then reflect the light back out into the world. When a gem diamond is faceted, each of the faces acts like a small prism so there are "numerous" rainbows of color created and the stone sparkles and dances. Since natural black diamonds are granular (composed of many little tiny crystals) the absorbed light cannot "bounce around" and is not dispersed through the faceted faces. At least, that is my understanding of the crystallography (certainly not my strong suit).

"Most" natural black diamonds then are not really gemstones but are in demand for use as industrial diamonds; however, there are exceptions. For example, the Spirit of de Grisogono black diamond, with an Old Moghul cut, was faceted down to 312 carats from a rough 587 carats (Fig. 2).

But, what about the non-natural "gem" black diamonds advertised on TV and the internet? It appears gemologists, or the manufacturer/suppliers, use an irradiation process, or a high temperature/high pressure procedure, and produce a black or very dark green surface color on a diamond that is then annealed by high heat, ~800° C. to lock in the color (Fig. 2). Any sort of enhancement like this is usually done on a lesser-quality diamond, perhaps one filled with inclusions. The black surface color would hide the imperfections. But beware; these diamonds should not be cleaned by steam or an ultrasonic cleaner since they may lose their surface coloring! I also wonder how, over time, harsh household chemicals might affect non-natural black diamonds? And, unlike clear or light diamonds, faceting does not affect the brilliance or refraction but only the shape of the stone; the surface coloring makes the black diamond opaque. With an opaque surface the light is not absorbed and cannot be reflected back out through the facet faces.

So, it appears that lesser-quality diamonds are being irradiated or temperature/pressure treated to produce gem black diamonds, but who would want to buy such? Although these specimens are true diamonds, they exhibit few physical properties of diamond gem stones except hardness and an adamantine luster—no sparkle, no refraction, no fire, no birefringence, no rainbow of colors. But wait, the old saying "where there

is a will there is a way" applies to black diamonds---the "will" is to sell black diamonds (probably inferior as clear diamonds) and the "way" is a huge marketing push. It is all about marketing—*an elegant gem with a rich look*! Or this push: *Black diamonds are extremely stylish, distinctive and highly in vogue, even with Celebes.* I suppose that some people might pay big prices and collect dog doo-doo if a Hollywood starlet was marketing such! Of course, I can't complain too much since my youth involved hula hoops. My wise father simply cut apart an old garden hose and hooked it together with a dowel rod and said *try this*. My coordination, or lack thereof, never allowed me to master the art of hooping! By the time pet rocks came along I was wise to the world. Ah, it is all about marketing.

However, getting back to geology, natural black diamonds (the polycrystalline diamonds) are really quite interesting. First of all, they are not associated with kimberlite (source of most natural gem diamonds) deposits and are older than 3.8 Ga (gem diamonds seem no older than 1 Ga) (Haggerty, 2007). In addition, black diamonds are not found in the "usual locations" (i.e., South Africa, State Line Diamond District, etc.). Thus far they have been found only as alluvial remains in Brazil and the Central African Republic. So, their origin has confused and puzzled geologists for decades. Speculation ranges from shock metamorphism due to a meteor impact, to spontaneous fusion of radioactive elements, to high pressure conversion of carbon; however, there are problems with each. Perhaps the most innovative theory was proposed by Haggerty (2007): *… black diamonds came to earth during an asteroid event that struck when the two countries* [Brazil and Africa] *were still one continent* [in the late Paleozoic Pangaea]*…Carbonados have hydrogen in them, suggesting the diamonds formed in an environment, like a star. When examined under infrared radiation,* [black diamonds have] *a spectrum similar to a type of diamond that exists in space…the carbonado diamonds formed in stellar supernova explosions, which formed large asteroids that traveled through space before landing on earth some 2.3 billion years ago.* Seems like black diamonds formed from star dust!

The second "coincidence" in my quest for answers about black diamonds came about when another advertisement flew through the mails with a "deal" to purchase black spinel as a "cheaper alternative to black diamonds". Wow, now that really intrigued me.

The third coincidence arrived in a rapid succession when I attended a recent show and one of the vendors had a very nice selection of faceted, gemmy spinels. In fact, several stones, including a black spinel, displayed spectacular cuts. I was further impressed by the specimens when I learned they were natural spinels rather than laboratory-produced crystals. But, I really had to rattle the back part of my mind to even recall something about the mineral! I actually had not thought much about spinel for years.

I don't remember much about spinel from my undergraduate mineralogy class except seeing some very hard octahedral crystals rolling about in a white specimen box. At first glance it was easy for me to get the crystals mixed up with magnetite octahedrons and I sort of wondered if there was a relationship. But then, something in my brain said "wake up Mike, use a magnet" to weed out the spinel. I never used the magnet since I don't recalling needing to identify spinel on any test! In fact, I don't believe that I ever observed or identified the mineral in the field.

Fig. 4. The Black Prince's Ruby displayed on the front of the Imperial State Crown of Great Britain. Photo public domain from *The Crown Jewels of England.*

Later in life essentially the only thing I knew about spinel was that for years the royal British jewelers were a bit confused about gems in the crown jewels! The Black Prince's Ruby and the Timur Ruby (~360 carats), part of the crown jewels, are actually red spinels; however, before modern gemological tests were readily available most red colored gems were termed rubies. The Black Prince's Ruby is ~170 carats in weight but is more of a cab or blob and is not faceted (Fig. 4). It prominently sits on the front of the Imperial State Crown, which in turn may be seen by visitors in the Tower of London Jewel House. During the recent Christmas break I had a "bucket list" opportunity to visit the Tower but alas, photos were forbidden.

The Samarian Spinel is part of the Iranian Crown Jewels (did you know Iran had crown jewels?) and may be the largest spinel gem in the world (~500 carets). Legend has it this particular spinel adorned the biblical Golden Calf, constructed by the Israelites (for worship) while spiritual leader Moses was receiving the Ten Commandants.

Then along came the recent advertisement extolling the thought that black spinels were a wonderful substitute for more expensive "black diamonds". That blurb intrigued me even more so I begin to dig through the literature, and also remembered that somewhere

Fig. 5. Gem red spinel from the Gem and Mineral collection of the Smithsonian's National Museum of Natural History. Photo courtesy of Dane A. Penland.

in the recesses of my collection was a specimen of spinel.

Spinel, a magnesium aluminum oxide ($MgAl_2O_4$), comes in a variety of natural colors with nice stones being colorless (rare), red to pink (probably due to trace chromium), orange to purple (probably due to trace iron and chromium), black (probably due to trace iron), and blue (probably due to trace iron and cobalt). A jeweler told me that very few faceted spinel gemstones are enhanced; occasionally, some are heated to improve the color. As noted above, red spinel (Fig. 5) is often confused with ruby, a red aluminum oxide ($Al_2O_3$) with trace chromium supplying the color in both. In fact, they often occur together with ruby forming after the available magnesium is "used up".

Spinel is a hard mineral coming in at 7.5-8 on the Moh's scale and forms in the isometric system; most crystals are octahedrons. It is translucent to transparent to even opaque and has a vitreous luster. Specimens do not cleave. As I understand it, most gem spinels are found in alluvial gravels with the finest red, pink and orange specimens coming from Myanmar (Burma). Sri Lanka (Ceylon) is a major producer of blue and violet stones; however, it appears that new deposits have been located in Tanzania.

One of the unfortunate facts (or depending upon your point of view, fortunate) is that spinel is easily synthesized and colored and many people simply do not appreciate the beauty of natural spinel; they may not even realize that "natural" spinel exists! In fact, some of the colors in synthetic stones do not appear in nature and virtually all clear crystals marketed as spinel are synthetic. Synthetic spinel also is often used to replicate other gemstones such as diamond, ruby and sapphire---know your dealer! Have an old high school class ring with a big colored stone? There is a good chance the colored stone is synthetic spinel (so much for my blue "gem").

Spinel is a member of the "Spinel Group" of minerals crystallizing in the isometric system and with a general formula of $AE_2O_4$. *A* represents various metallic cations. Minerals in this group include the *Spinel* or *Aluminum Series* where *E* is Aluminum, the *Magnetite* or *Iron Series* where *E* is iron (Fe), and the *Chromite* or *Chromium Series* where *E* is chromium.. The *Aluminum Series* includes the gem spinels, but at times the magnesium of spinel (the *A*) may be replaced by zinc (the mineral gahnite), iron (the mineral hercynite), or manganese (the mineral galaxite). The best known mineral of the *Iron Series* is magnetite ($Fe_3O_4$) while chromite ($FeCr_2O_4$) is a representative of the *Chromium Series*.

Fig. 6. Small mass of black spinel octahedrons collected Fresno County, California. Width of specimen ~5.2 cm. Large crystal upper right is pictured in Fig. 7 below.

Spinel is found in both igneous rocks (basalts, peridotites, kimberlites) and high temperature contact metamorphic rocks (especially hornfels and marbles). Some of the most beautiful specimens that I have seen in museums are where a crystal of red spinel is perched on a metamorphic white marble.

The specimen in my collection (black and opaque due to iron) was purchased at a show and labeled "Huntington Lake, Fresno County, Calif." (Figs. 6, 7). As best that I can tell this spinel occurs in *a deposit of pre-Cretaceous crystalline limestone changed to marble and containing several smaller bodies of calc-silicate hornfels… It is in the high Sierra Nevada, 3 miles north of the east end of Huntington Lake, at an elevation of 8500 to 8800 feet. As mapped, this limestone pendant is over 10,000 feet long and from 1250 to 3000 feet wide… the contact-metamorphic rocks formed where the Sierra Nevada batholith intruded a region deeply covered by older sedi*

Fig. 7. Photomicrograph of one-half of a spinel octahedron (see Fig. 6).

Fig. 8. Black spinel (pleonast) crystal from Eastern Siberia, Russia. Size: 2.6 x 2.4 x 2.3 cm. *Photo by Rob Lavinsky, iRocks.com - licensed under CC-BY-SA-3.0*.

*ments, of which the original upper portions have been removed by erosion, including glaciation* (Logan, 1947). Pink, green and lavender crystals also have been collected from this locality.

I certainly have not collected gemmy and crystalline spinel (*Spinel Series*) anywhere in Colorado and Eckel (1997) stated that "spinel…has seldom been observed in Colorado". However, he also noted that S*pinel Series* minerals "are common accessory constituents of mafic igneous and metamorphic rocks… and are much more widespread than indicated by the literature. Much of the spinel… occurs associated with Precambrian massive sulfide deposits".

Gahnite, the zinc-dominant member of the *Spinel Series*, "is commonly found in Colorado in Precambrian metamorphosed, base-metal sulfide deposits and in a few pegmatites of granitic composition…It is moderately common in such deposits in the Front Park, and Sawatch Ranges". One of the local rock and mineral shops has several specimens of gahnite on display and for sale; however, the mineral is non-crystalline and is a granular (small) blackish (maybe dark, dark green), smear on country rock. I certainly would not be able to identify it as gahnite without its label, or perhaps by using a microprobe stuck in my back pocket.

Several gem dealers refer to spinel as the "forgotten gemstone". It certainly was an import gem at one time---witness the crown jewels. However, with the advent of synthetic spinel the stone seemed to decrease in value. My suggestion is that readers ask their dealers for a peek at the real thing---you will be surprised at the gem's beauty.

As for gemmy black spinel, it is sometimes termed pleonast or ceylonite (Fig. 8) and seems to be intermediate in composition between magnesium spinel and hercynite. Sometimes it is termed a ferroan spinel. In terms of "gemminess" (probably not an acceptable word) pleonast is similar to non-natural black diamond in that both specimens are opaque and therefore lose any brilliance that would be found in normal red or pink or other light colored stone. Again, any faceting of either stone would only change the shape of the specimen. However, if I were buying a black stone my choice would be pleonast since the gemstone is "colored" black throughout while non-natural black diamonds have only a surface coloration.

And finally, I don't want my readers to confuse the gemstone pleonast with another term sometimes applied to my writing—pleonastic (using more words than necessary to express an idea)

*Rich and rare were the gems she wore,*
*and a bright gold ring on her hand she bore.*
Thomas Moore

REFERENCES CITED

Eckel, E. B. (and others), 1997, Minerals of Colorado: Fulcrum Publishing, Golden, Colorado.
Haggerty, S., 2007, Mystery Diamonds; Scientists Investigate rare carbon Formation: Physics Central, American Physical Society at http://www.aip.org/dbis/APS/stories/17061.
Logan, C. A., 1947, Limestone in California: California Journal of Mines and geology, v. 43, no.3

## Two Poems From Zach Sepulveda

Zach recently moved to the Pikes Peak region from San Diego, CA. He became interested in paleontology by visiting the La Brea Tar Pits in Los Angeles as often as he could. He is a junior member of the Colorado Springs Mineralogical Society and is part of the Pikes Peak Pebble Pups Earth Science Scholars Program. Zach is 15 years old and is in 10th grade at Palmer Ridge High School in Monument, Colorado.

Zach will be representing the Colorado Springs Mineralogical Society and the Colorado Scientific Society at the Western Interior Paleontological Society's Founders Symposium: **Ice Worlds and Their Fossils.** The symposium will be held at the Colorado School of Mines on March 16-17, 2013. He will be presenting a poster as part of a section on "Bringing the Past to Life (Artist Scientist Panel)."

## Naracoorte

By Zach Sepulveda

As I sit atop my bed of bones,
the wind outside - it screams and moans.
Deep within my cave of dreams,
nothing's ever what it seems.

I question if I truly know my home.
I wonder at what horrors lie beyond my walls of stone.
It comes upon me without warning, and fills my heart with dread,
a violent, shocking acquiescence that I might join this bed.

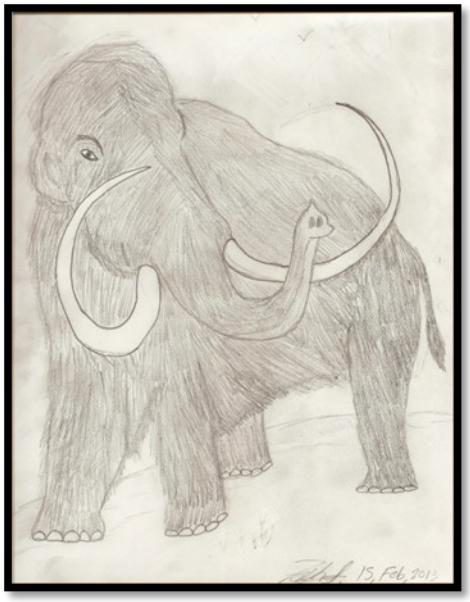
To join the leagues of broken souls
who live forever as forgotten bones.
Lost inside, they seek themselves,
wandering forever in this labyrinth of stone.

I'll go to dust as everything must.
I'll fade away in time.
But for now I refuse to waste away
and attempt to make the climb.

**Note**: ***Naracoorte Caves National Park*** is South Australia's only World Heritage site. The site was recognized in 1994 due to the importance of the fossils found in the caves.
The park is has over 100 known fossil deposits, preserving the bones of Pleistocene megafauna that became extinct roughly 60,000 years ago. Naracoorte Caves preserves Australia's most complete fossil record for the past 500,000 years.

# Twilight of the Mammoths

*Perched upon a grassy hill ancient hunters prepare to make a kill…*



Blaring trumpets shatter the air
Terrified voices echo despair
Hurtling towards their own demise
A chance at life, their fate denies

The blood of giants spills forth upon the grass
Brought forth by razor-edged volcanic glass
Marching closer to defeat with each fresh laceration
Panicking behemoths flee from inevitable damnation

Perfectly adapted to a dying world
Their fate was sealed when their blanket of ice unfurled
Their fragile world was brought to bear before the fury of the sun
And before they even knew it, their time on earth was done.

## 2013 CSMS Officers

**Mark Lemesany, President**

**Jean Miller, Vice President**

**Renee Swanson, Secretary**

**Ann Proctor, Treasurer**

**Ellie Rosenberg, Editor**

**Susan Freeman, Membership Secretary**

**Sharon Holte, Member-at-Large**

**Frank Rosenberg, Member-at-Large**

**Roger Pittman, Past President**

## 2013 CSMS Chair Persons

**Kim & Bodie Packham, Annual Show Chairpersons**

**Ron Yamiolkoski, Field Trip Director**

**Ron Yamiolkoski, Science Fair Chair**

**Brenda Hawley, Historian**

**Frank & Ellie Rosenberg, Librarians**

**Camera Club Chair is Vacant**

**TBD, Social Committee Chair**

**Ann Proctor, Store Keeper**

**TBD, Crystal Studies Group**

**Paul Berry, Faceting Group**

**TBD, Fossil Group**

**Bill Arnson, Jewelry Group**

**Sharon Holte, Lapidary Group**

**Steven Veatch, Juniors & Pebble Pups**

**Dave Olsen, Micromount Group**

**Gary del Valle, Webmaster**

**To contact an officer or chairperson, go to csms.us, click on Board Members, and, if their name is underlined, click on it.**

| Sub-Group Responsibilities for Refreshments for General Assembly Meetings | | |
|---|---|---|
| Feb.—Crystal | Mar.—Faceting | Apr.—Fossil |
| May—Jewelry | June—Lapidary | July—Micromounts |
| Aug.—Picnic | Sept.—Projects | Oct.—Board |
| Nov.-TBD | Dec.-Christmas Party | |

# President's Corner

by Mark Lemesany

Hello everyone, I thank you for the interest and passion we all share. Rockhounding is a great hobby, outside, fresh air and friendships. I hate to be the one though to bring this up but some one has to. Rockhounding is not the easiest hobby. It requires physical strength. The better fit a person is the more they can do. The upcoming field trip season is just around the corner. We all need to start thinking about getting ready for it. Ask yourself "What do you want from our hobby?" The answer for me is find more specimens to bring home. How can we all prepare ourselves for the physical exertion we know is coming? Get in better shape. Everyone knows the better you feel the more you can do. So keep taking walks, drinking your water and engaging in the physical activities that you like. I found a really good workout video on YouTube that suits me. If you type "YouTube workout videos" into Google you will get a whole list of videos to suit any age and ability. Time is ticking and Spring is coming. I want to see you on some field trips having fun. Maybe you will even want to lead some. Thank you and see you at the meeting.

# Secretary's Spot

by Renee Swanson

**Colorado Springs Mineralogical Society**

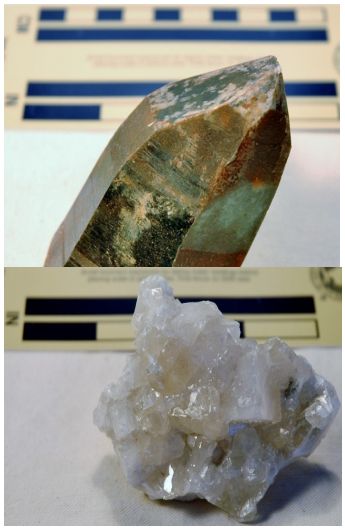
The February General Meeting was canceled due to weather conditions.

### We Need a Social Chairman

The Social Chairman makes sure that paper plates, cups ice and water are available at the General Meeting.

If you are willing to take on this responsibility, speak to Mark Lemesany at the meeting

### More Silent Auction Specimens



Top left, Smokey Quartz from Crystal Park; Top right, Quartz, Amethyst, Anhydrite, calcite; Bottom left, Calcite

PICK&PACK

**Our Staff...**
**Ellie Rosenberg—Editor**
**CSMS Members *Reporters***

We encourage everyone to submit articles, photos, illustrations or observations.
Share your experiences, trials and tribulations, your new finds, or simply your experience at our last field trip.
The ability to write well is NOT a requirement. We will fix the grammar while keeping the author's voice, style, and work intact.
Handwrite it, type it, or email it. Please only use jpeg or other picture formats for pictures. Text is almost impossible to edit in that format. All submissions are welcomed.
**DEADLINE for items to be included is the 3rd Thursday each month.**

To submit an item, please use the following:
For hardcopy photos or articles, mail to the address below or bring them to the General Assembly Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos should be submitted at resolutions above 200 dpi in TIF, BMP, JPG, or PIC format. Articles are preferred in word. Editors will correct font and type. All articles not shown with an author are provided by the Editor.

E-Mail to:
***csmseditor@hotmail.com***
Mail to:
Pick & Pack Editor
PO Box 2
Colorado Springs, CO 80901

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# Classifieds


Register Early for the Best Space!

**ACKLEY'S ROCKS**
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3230 Stone Ave. Colorado Springs, CO 80907 719-633-1153
ackleysrocks@comcast.net
Hours: 9 to 5, every day but Sunday.

**2013 Lake George**
**SHOW**
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***Dates TBD 9 am to 5 pm***

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Time Value
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# Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are held the **third (3rd) Thursday of each month**, except January & August, (picnic) **beginning at 7:00 p.m.** at the Colorado Springs Senior Center, 1514 North Hancock Ave., 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: Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group by RVSP, Lapidary Group by RVSP, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

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—$30, Family—$40, Juniors—$15, Corporate—$100, ******Application is on the web site.

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Assembly meeting or visit our web site: www.csms.us.