

PICK&PACK

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GEOLOGY AND THE COURSE OF HISTORY: THE GANGPLANK

BY DR. MIKE NELSON, CSMS

Next to winning the Civil War and abolishing slavery, building the first transcontinental railroad, from Omaha, Nebraska, to Sacramento, California, was the greatest achievement of the American people in the nineteenth century. Stephen Ambrose

I have been fascinated with railroads since my childhood days in Kansas. As a youngster I was a regular visitor to the local train depot (Fig. 1) and spent long periods of time watching the telegrapher and trying to learn Morse Code (unsuccessfully). Most warm days I would walk down to the tracks and watch the Doodlebug (Jitney) come to town. This piece of history was an interesting two car train with the front car devoted to the diesel engine and passenger compartment (a Pullman motor car) while the second car carried mail, cream cans and other odd bits of freight. This train, The Salina, Western and Lincoln Railroad (later purchased by Union Pacific) operated as the Plainville Short Line going east in the morning to the larger town of Salina and returning in the afternoon heading west to its night stop.



Fig. 1. The Union Pacific depot at Tescott, Kansas ca. 1950. The passenger train or Doodlebug made its last stop on 1 June 1958. Photo courtesy of Rolling Hills Wildlife Adventure

So, one could pay a small fee and ride to the city of Salina, do some shopping/ buying and return home in the late afternoon. The morning train carried the cream cans to a creamery in Salina while the afternoon train delivered mail from a regional post office. This was an interesting situation since one could receive two first class mail deliveries in the same day as the morning mail came by truck. I also fooled around catching the daily freight train for a few blocks before jumping off as the speed increased. Sometimes I rode it a little further and bailed off at a fishing hole! While in the 6th grade my parents let me take my first solo trip to Kansas City to watch the major league baseball game.

We got off at Union Station in Kansas City and took a bus to the old Municipal Stadium and watched the Athletics (before they moved to Oakland, CA). I shudder today at the thought of putting a 12 year old kid on the train. But, I survived, and times were different.

As an adult I became interested in passenger trains and have ridden Amtrak all over the U. S. I also began reading about the history of railroading and became fascinated with the first train to span our country—the Transcontinental Railroad. As a geology student I soon began to realize that rocks and hills and rivers, the landforms of this country, dictated the routes of the early railroads. The most fascinating route of

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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.

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Colorado Springs Mineralogical Society

Founded in 1936

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Honorary President

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all was the “Gangplank” in southeastern Wyoming. This winter my mind became refocused on the feature, probably because I finished reading, for the second time, Stephen Ambrose’s great book about the transcontinental railroad, *Nothing Like it in the World*. This tome is a wonderful description of how “geology” dictated the route of a major technological feat that linked the U. S. East with the U. S. West. With the railway construction companies being paid by the mile of track laid, the book is an explanation of how the Union Pacific zoomed across the flat plains west of Omaha while the Central Pacific struggled going east across the Sierra Nevada Mountains. But there is one little piece of information that is off extreme interest to geologists, and that is the September 1865 pronouncement of Grenville Dodge, of the Union Pacific, that he had found a route to cross the Black Hills (the area that is now known as the Laramie Range in southeastern Wyoming). What Dodge described was a solution to the first major topographical problem that the Union Pacific experienced—how

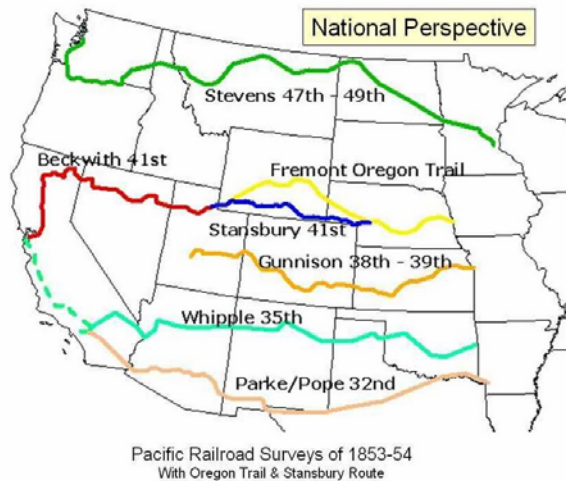


Fig. 2. The western railroad surveys completed in the 1850's by the U. S. Army Corps of Topographical Engineers. From Ostresh, 2011.

to get over this front range of the mighty Rocky Mountains?

The idea of a U. S. railroad linking the Atlantic to the Pacific had been debated by Congress for many years, probably at least since the 1830's as Manifest Destiny was in full bloom. However, then as now, senators and representatives wanted the best for their districts and states so continued to debate and propose routes. Finally, in 1853 Congress gave the task of completing a number of railroad surveys to the U. S. Army Corps of Topographical Engineers with the results being presented back to Congress for a final decision. Secretary of War Jefferson Davis (yes, that Jefferson Davis) assigned the Corps to investigate five routes (Fig. 2): the Northern route (Lake Superior-Puget Sound). under the direction of Isaac Stevens, recently appointed territorial governor of Washington; the 38th-39th parallel route (St. Louis-West Coast) headed by Capt. John Gunnison (who was killed by Indians in western Colorado in June 1853. the

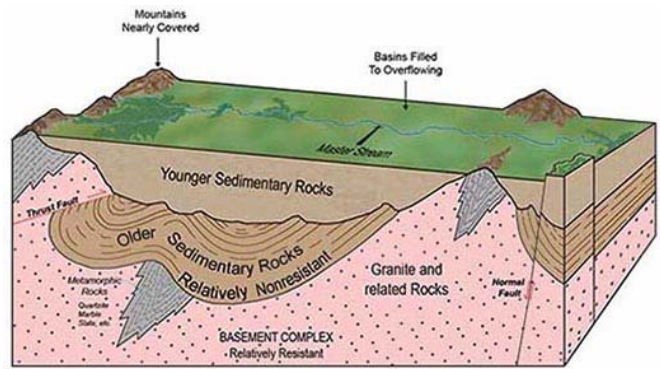


Fig. 3. Landscape of southern Wyoming during the Miocene with the basins filled to overflowing and many mountain ranges covered by their own eroded debris. A long sloping plain, the Ogallala Formation extended from the ranges eastward to perhaps the Missouri River (current site). Sketch courtesy of Wyoming Geological Survey

expedition taken over by Lt. Edward G. Beckwith who completed the survey by following the 41st parallel; the 35th parallel route (Little Rock-Los Angeles), commanded by Lt. A. W. Whipple; and the 32nd parallel route explored from the west by Lt. John Parke and from the East by Capt. John Pope (Roberts, 2011). The construction of the railroad was delayed for several years due to other impending problems of the Nation—the American Civil War. But, as soon as hostilities ended the building began, often using recently unemployed soldiers. The starting--ending points of the railroad had been determined: Sacramento in the west and Council Bluffs/Omaha on the east. However, the surveyors were still somewhat undecided as to exact routes. At first, the Union Pacific favored following the old Oregon Trail north around the Laramie Range, up the Sweetwater River to South Pass (the easiest place to cross the Continental Divide), and then on to Utah via Fort Bridger. But, and this is a critical but, this Oregon Trail Route was almost barren of coal until near Salt Lake City. Wagon Trains on the Oregon Trail traveled by horses/oxen and needed forage for fuel; trains were fueled by coal. Therefore, proximity to coal reserves was an important consideration for any route.

Slightly south of the Oregon Trail route was a stage route, established by Ben Holliday, sometimes referred to as the Overland Trail. This route seemed like a good alternative since coal was more readily available in southern Wyoming. However, there was a big problem with this proposal since the railroad would need to ascend and summit the Laramie Range, the initial front range of the Rocky Mountains.

I have written many times before about the Laramide Orogeny, that mighty tectonic event (Cretaceous into the Eocene) that created the diverse ranges of the Rocky Mountains from Utah east to the Black Hills (the “real” ones in South Dakota) and from Canada to Mexico. The numerous ranges appeared at different

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times and involved both vertical uplift (often in the form of large anticlines) and faulting. I once heard a talk by Wyoming Geologist Laureate David Love where he likened these uplifts to a bunch of hogs waking up under a blanket! However, nature dictates that everything that goes up (orogeny) must come down (erosion) and that is what happened in the Rockies. By the late Eocene and Oligocene the tectonic uplift had stopped and the mountains had generally been worn down and were being buried in their own debris. Adding to the sediment load was a vast amount of wind-blown volcanic ash coming in from the northwest.

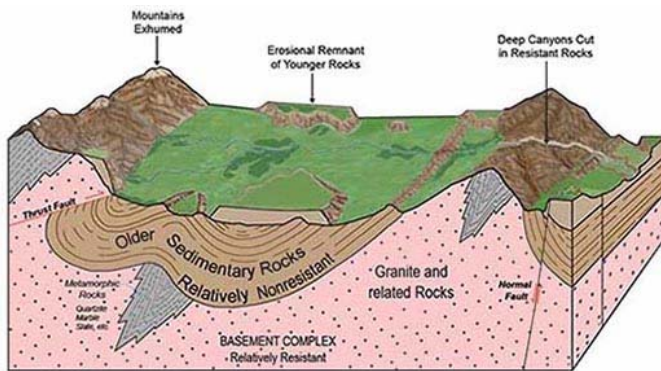


Fig. 4. Sketch showing current cycle of erosion that began in the Pliocene. The basins were excavated, streams cut across mountain ranges, and the rivers of the Great Plains were established. Much of the Ogallala Formation was eroded away and stream channels became established. Sketch courtesy of Wyoming Geological Survey.

Well-known formations such as the White River Group, so well-exposed in the Badlands of South Dakota, represent stream sediments shed far to the east of the mountains. By the Miocene only a few mountain ranges in Wyoming projected above the sediment fill (Fig. 3) and by about five million years ago (end of the Miocene) a vast alluvial, sloping plain extended from the low mountain fronts eastward to at least the Missouri River (current location); we know these rocks as the Ogallala Formation (see previous articles in Pick & Pack). Later, during the Pliocene, something in the earth's crust triggered a widespread and strong uplift of the entire Rocky Mountain region. Geologists term this as an epeirogeny—broad uplift of an entire region as opposed to “sharp” uplift, an orogeny. When this happened streams began to flow eastward off the mountains and the sediments were stripped off the interior basins, the mountains, and the plains to the east, especially in the areas nearest the mountains (Fig. 4). The modern river drainages of the Rocky Mountains and Great Plains were becoming established. Today, the Laramie Range, a northern extension of the Colorado Front Range, extends from the Colorado—Wyoming state line north and west to near Casper, Wyoming. East of the mountains is a section of the Great Plains termed the Cheyenne/Denver Basin with

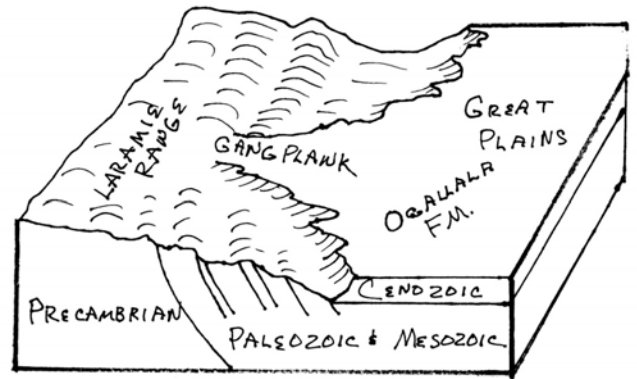


Fig 5. Sketch showing relationship of the Gangplank (Ogallala Formation) to the Laramie Range. Adapted from Ostresh, 2011

Tertiary rocks exposed at the surface. The Paleozoic and Mesozoic rocks, mostly in the subsurface in the Basin, are upturned and eroded as they meet the Precambrian granite of the Range (Fig. 5). The Laramie Range, with Laramie Peak at 10,272 feet, is approximately 3000 feet higher than the rocks of the Great Plains.

So, if the Union Pacific Railroad was to ascend the Laramie Range, the challenge would be to establish a route with minimal grade, minimal fill work, and a minimum number of trestles. That route, later named the Gangplank, seemed unknown to non-Native Americans as the railroad began their westward push. A U. S. Army Corps of Topographical Engineers project, led by Major Howard Stansbury, studied Great Salt Lake in 1849-51 (*Exploration and survey of the valley of the Great Salt Lake of Utah, including a reconnaissance of a new route through the Rocky Mountains*) and returned to the east via southern Wyoming and “missed” the Gangplank, although their route generally followed what was later known as the Overland Trail. U. S. Army soldiers stationed at Camp Walback (Ostresh, 2011), a post created in 1858 to protect wagon trains crossing Cheyenne Pass on the Overland Trail, was only a few miles north of the Gangplank but no mention was made of this feature. Nor did teamsters and travelers on the nearby Denver-Fort Laramie Trail comment on the feature. Ostresh (2011) summed up these “missed” opportunities by stating that “while people intent on building a railroad over the Black Hills [Laramie Range] had seen the Gangplank for a period of 15 years, Dodge was the first to connect the dots and realize the potential as a rail route”. What is the Gangplank? Essentially it is a piece of the Ogallala Formation that escaped erosion along the mountain front and actually extends from the Great Plains up to the summit of the granite core of the Laramie Range (Fig. 5).

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Picks & Pans

March General Assembly Information

By Bob Landgraf

Do you go on mineral or fossil collecting field trips? Do you go to Rock Shows and purchase specimens? Do you take photographs of your outings? Then you have what is needed to exhibit at the Pikes Peak Gem & Mineral Show. Come to the March general meeting and Bob and Barbara Landgraf and Jack and Kaye Thompson will give you some ideas on taking your collection and putting together an exhibit for our upcoming show.

COLORADO MINERAL & FOSSIL SHOW-SPRING APRIL 22-23-24, 2011

**Holiday Inn-Denver Central, 4849 Bannock St.
(Retail and Wholesale)**

Friday & Saturday, 10 a.m. – 6 p.m., Sunday, 10 a.m. to 5 p.m.

Free Admission – Free Parking – Open to the Public

Minerals, fossils, gems, jewelry, beads and lapidary
Local, national, and international dealers.

31st Annual Gem & Mineral Show in SD

The Gem and Mineral Show Committee would like to invite other rock hounds to the 31st Annual Gem and Mineral Show on June 18 and 19, 2011. Why not make it a family vacation? Mt Rushmore, Crazy Horse and many other tourist attractions located within a hour of Rapid City. Feel free to contact me for more information. Looking forward to seeing you in June.

Hazel Morgan-Williams
Jewelry Designs by Morgan
2415 Judy Avenue
Rapid City , SD 57702
605-431-5491



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In my college geomorphology class we were told that the Gangplank is the only place along the entire Rocky Mountain Front, from Canada to Mexico, where a traveler could simply walk up a slope from the plains to a mountain summit. As a comparison for CSMS readers in Colorado Springs, think of the Colorado Piedmont Province east of the city (see Pick & Pack September 2010). This area is quite hilly and eroded eastward to Limon while the Rampart Range front west of the city is impressive and forbidding. If the Colorado Piedmont were similar to the Gangplank, a gentle slope of Ogallala Formation, currently exposed at Limon but absent in the Piedmont, would gently ascend to the summit of the Rampart Range!



Fig. 6. Looking eastward toward Cheyenne at "the Gangplank." Interstate Highway 80 and the Union Pacific Railroad follow the Gangplank from the High Plains in the distance onto the Precambrian core of the Laramie Range. Photograph courtesy of R. D. Miller, U.S. Geological Survey

So, Grenville Dodge traveling east and south from a foray into the Powder River Basin made a detour to explore the land near Crow Creek and Lone Tree Creek (west of current Cheyenne). Surprised, and harassed (although it may have been Dodge doing the harassing), by a group of American Indians, Dodge and his exploratory crew dismounted and begin to walk east toward the larger remainder of his group. Expecting to travel down the escarpment off the Laramie Range, Dodge instead found a slope that "led down to the plains without a break. I then said to my guide that if we saved our scalps I believed we had found the crossing" (Dodge, 1910).

The rest, as they say, is history as the Union Pacific passed through Cheyenne in September 1867, crested the Laramie Range at Sherman Pass (at 8640 feet, the highest point above sea level on the railroad) and reached Laramie in May 1868. The building of the first transcontinental railroad has often been hailed as the major engineering feat in U. S. history. However, few people know that an

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accidental erosional remnant helped pave the way for completion of this massive project (Fig. 6). And finally, current visitors to I-80 during the winter months most likely experienced high winds and lots of drifting snow in the section west of Laramie. According to local legend the area ranchers advised the Interstate planners to detour north around the Snowy Range and follow the route of the Union Pacific. However, the “people from back east” plowed straight ahead and through the Range and therefore, for the foreseeable future, the highway will suffer the effects of expensive winter maintenance. The railroad planners did know something about mountains, road grades, and winter snows.

When the track got beyond Laramie, Congress removed Wyoming from Dakota Territory and gave it territorial status of its own [It became a state in 1890, the 44th state]. At the beginning of 1877 Wyoming had fewer than a thousand white inhabitants; by early 1868, thanks to the railroad, it was estimated to have forty thousand white people [the population today is ~ 564,000—total]. Stephen Ambrose.

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Ostresh, L., 2011, The Mystery of the Gangplank: <http://picasaweb.google.com/LarryOstresh/MysteryOfTheGangplank#slideshow/5441970535271957106>



Starting next month, I will try to bring you information on different rock varieties you may not have heard of before, just to give you a “heads up” on what to expect as the “next big thing.” I will give you general information that will, hopefully, peak your interest and entice you to investigate further. Teri



Colorado Springs Mineralogical Society Second Annual Silent Auction & Bake Sale

April 23, 2011 10 a.m. to 2 p.m.

At the WMMI

225 North Gate Blvd. (I-25 Exit 156A)

Colorado Springs, CO

Lots of fun for the entire family! We will have an assortment of mineral specimens, slabs for lapidary work, fossils, and finished pieces for folks to bid on. There will also be some special items of interest to capture your attention and earn a bid. Club members will be donating an assortment of homemade goodies to purchase. Come see the Museum, have fun bidding on favorite items, and take home a few goodies to eat later.

Admission: Standard WMMI Admissions apply. CSMS members and other WMMI supporting clubs admitted free.

Regret is a Rock Author Unknown

Regret is a rock,
Something always there.
We pretend that it's gone,
But its weight we share.
It sometimes pulls us down,
It sometimes makes us cry,
It's always hiding in our mind.
One thing that never dies.
We try to discard it,
We skip, we ignore, and we throw.
But as a rock is indestructible,
Regret will always show.
Luckily we can learn from them,
Like Rocks in river beds.
Overtime they slowly fade,
And become sand instead.

WMMI HAPPENINGS

225 Northgate Blvd. Colorado Springs, CO 80921

Main: 719.488.0880 Toll Free: 800.752.6558

Hours: 9 a.m.-5 p.m., Monday-Saturday (June-August)

9 a.m.-4 p.m., Monday-Saturday (September-May)

Daily Guided tours at 10 a.m. and 1 p.m. (included in admission).

The Western Museum of Mining and Industry is a private, nonprofit museum founded in 1970. We educate over 8,000 school children a year on the importance of mining in the American West.

March Mining Movie Madness

Wednesdays in March 7:00 p.m.

You're invited to the Western Museum of Mining & Industry's March Mining Movie Madness. At 7:00 P.M. on March 2nd, 16th and 30th a movie of the night will be featured. We will be featuring old classics and newer favorites, with actors such as Clint Eastwood, Sean Connery and Sissy Spacek. Check our website at www.wmmi.org to see which movie will be playing each night with a brief synopsis of the movie. Hot beverages will be provided. \$3.00 admission per person to help support the museum.

Spring Break with the Burros

Friday, March 25 9:00 a.m. – 4:00 p.m.

Tour the Museum to learn about life in the 1880's at 10:00 a.m. and 1:00 p.m., afterwards meet and greet our burro mascots Oro & Nugget. Learn what makes a donkey "pink" and the important role burros played in our mining history. Use your imagination and venture to a time of limited technology but tons of creativity! Picnic grounds are available, and there are over 27-acres to explore!

Senior Mondays

Monday – Saturday 9:00 a.m. – 4:00 p.m.

Last month, Seniors age 60+ admitted to the museum for just \$2.50 (reg. \$6) every Monday. Museum tours begin at 10:00 a.m. & 1:00 p.m. Group tours are available upon request. For more information contact us at 719-488-0880 or info@wmmi.org

Heritage Lecture - Political Nature of Energy

Thursday, April 7, 7 p.m.

Robert E. Ebel presently is Senior Advisor to the Center for Strategic and International Studies (CSIS) and is co-director of the Caspian Sea Oil Study Group and of the Oil Markets Study Group. For CSIS, Ebel offers his views on world oil and energy issues, with particular emphasis on the former Soviet Union and the Persian Gulf. He has also been project director for a number of



nuclear-related reports and has authored books related to energy and Geo-politics. A widely acclaimed speaker, Ebel is a frequent commentator on national and international radio and television and his views on energy issues appear regularly in U.S. newspapers and abroad. CSIS is a nonprofit, nonpartisan organization located in Washington D.C., which provides strategic insight and solutions to decision makers in government, international institutions, the private sector, and civil society. **Free and open to the public. To reserve your spot, call 719-488-0880 or e-mail rsvp@wmmi.org.** The museum is located just off Interstate 25 at the North Gate Blvd Exit 156A.



Keep What You Find Gold & Gemstone Panning

Saturday, April 16, 9 a.m.—4 p.m.

Take a tour of the museum to learn how to pan for real gold and gemstones just like the prospectors of the 1800's. Each visitor gets to keep whatever treasures they find! Daily tours begin at 10:00 a.m. and 1:00 p.m. No reservations required. Museum located just off I-25 at the North Gate Exit 156A. Visit our website at www.wmmi.org for more information.

Admission: \$8 adults, \$7 Military/AAA, \$6 Seniors & Students, \$4 Children 3-12, Free to Children under 3 & Museum Members.

Location: WMMI is off I-25 at the Gleneagle exit, #156A across from the north entrance to the United States Air Force Academy.

THINGS TO DO FROM CSMS

MEMBER PETE MODRESKI

Mar. 25-27, Fort Collins Rockhounds Club Gem and Mineral Show at The Ranch in the Thomas M. McKee 4-H building, Larimer County Fairgrounds, 5280 Arena Circle, Loveland [new location for just this year; normally in downtown Fort Collins]. For more info see <http://www.fortcollinsrockhounds.org/gemAndMineralShow.shtml>.

April 22-24, Colorado Mineral and Fossil Spring Show, Holiday Inn-Denver Central, 4849 Bannock St, Denver, CO 80216; free admission and parking. For more info see http://www.mzexpos.com/colorado_spring.htm

A last P.S., just "FYI", have you seen this video about a 100-ounce gold nugget recently found in California? http://geology.com/news/2011/giant-gold-nugget-the-100-ounce-washington-nugget.shtml?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+Geologycom+%28Geology.com%29

CoCoRaHS, Community Collaborative Rain, Hail & Snow Network: all year; <http://www.cocorahs.org/>
"CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow). By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education and research applications. It's easy to join, takes only five minutes a day and is a fun way to learn about this wonderful natural resource that falls from the sky. We are striving to have 30,000-40,000 active observers by the end of 2013. COCORAHHS is now in all 50 states (as well as the District of Columbia)!" Participants must register and order a high-capacity (4" diameter) rain gauge, which they will read and submit data from at approximately 7 a.m. each day. The CoCoRaHS web-site is a great source for daily measurements of local rainfall and snowfall in each community within your state or around the country; anyone can log in and access the daily data. [Let me put in an extra plug for this project; I participate, and it's a GREAT community effort! Please also check out their 2011 Rain Gauge Calendars—you can help the project by ordering one.]

Colorado RiverWatch: all year <http://wildlife.state.co.us/landwater/riverwatch/>

A program that, "...started with six schools on the Yampa and grew to cover all watersheds in Colorado and 350 schools. Since 1989 we have involved over 60,000 individuals in Colorado, provided data on 3,000 stations covering over 300 rivers. We have also grown to include individuals, watershed groups and other enti-

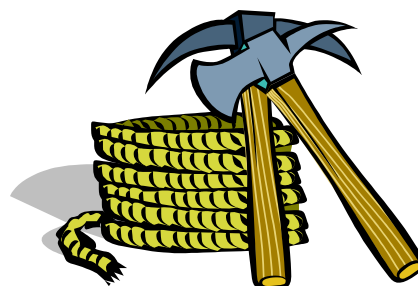
ties, besides schools, in our program. River Watch is a statewide volunteer water quality-monitoring program operated by the non profit 501©3 Colorado Watershed Assembly in cooperation with the Colorado Division of Wildlife (CDOW). Our mission is to work with voluntary stewards to monitor water quality and other indicators of watershed health and utilize this high quality data to educate citizens and inform decision makers about the condition of Colorado's waters. Volunteers agree to monitor on a monthly basis. Samples are collected which the volunteers analyze for hardness, alkalinity, dissolved oxygen, pH and temperature. Additional samples are collected to be analyzed for total and dissolved metals..." Volunteers must register, receive training and equipment, and agree to conduct regular water monitoring in a selected local stream. All the data collected and archived are publicly accessible via their website.

Project BudBurst: springtime (and fall too); <http://neoninc.org/budburst/>

Anyone can participate. Familiarize yourself with certain native plants from a list of those growing in your geographic area, then observe and report dates you observe for first leafing or flowering of these plants.

"Project BudBurst has targeted 97 native trees, shrubs, wildflowers, and grasses for you to monitor throughout the year! With your help, we will be compiling valuable environmental information that can be compared to historical records. By recording the timing of the leafing and flowering of native species each year, scientists can learn about the prevailing climatic characteristics in a region over time."

Globe at Night 2011: Feb. 21 – Mar. 6 and Mar. 22 - Apr. 4 "GLOBE at Night is an annual citizen-science campaign that encourages people all over the world to record the brightness of their night sky. For two weeks every March, when the Moon is not out during the early evening and the constellation of Orion can be seen by everyone everywhere, children and adults match the appearance of Orion with 7 star maps of progressively fainter stars found on the website, www.globeatnight.org. They then submit their measurements (e.g., which star map they chose) on-line with their date, time and location. This year the GLOBE at Night 2010 campaign (which took place March 3-16) set a record high of over 17,800 measurements from people in 86 countries."



Spessartine Garnet and Smoky Quartz Makes an Interesting Combination By Patrick Glover

Junior Member, Lake George Gem and Mineral Club, Lake George, Colorado

The smoky quartz and spessartine garnet sample shown in figure 1 is about the size of your palm. The spessartine garnet is reddish-brown in color. The smoky quartz is a translucent crystal that ranges from a brown at the bottom of the crystal to black at the tip, and seems to sprout out of the ground mass of the specimen. This sample comes from the Wushan Spessartine mine in Tongbei, Yuxiao Co., Zhangzhou Prefecture, Fujian Province China. The Mine is in the southeastern edge of China (source: "Wushan spessartine mine").

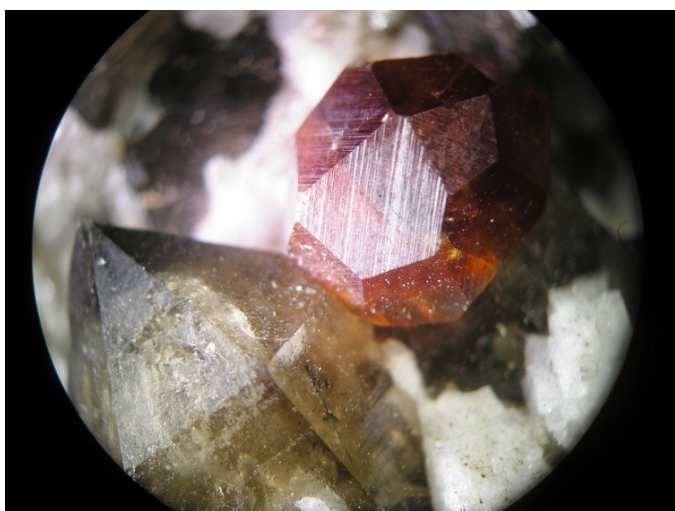


Figure 1. Smoky quartz and spessartine garnet crystals. The image is 4 cm across. Both Spessartine and smoky quartz are considered semi-precious gemstones. Photomicrograph by Patrick Glover ©. Photo date November, 2010.

Spessartine garnet (magnesium aluminum silica) is a semi-precious gemstone (in this specimen it is translucent) and is found primarily in places such as Germany, Sri Lanka, China, and Brazil (source: The mineral and gemstone kingdom: spessartine). It was discovered in 1832. On the Mohs scale, spessartine has a hardness of 6.5-7.5. Spessartine has a specific gravity of 4.15 (Pellet, 1992). Spessartine is formed in manganese-rich metamorphic environments.

Smoky quartz (silica dioxide) forms in a variety of mineral environments and is found worldwide in places such as China, England, Scotland, and the United States (source: The mineral and gemstone kingdom: quartz). Smoky quartz is more common than spessartine, and was discovered in 300 BC. It has a hardness of 7 on the Mohs hardness scale and has a specific gravity of 2.65 (Pellet, 1992).

Both minerals are valuable as beads and talismans. The Egyptians made spessartine into beads and sold them as gems. The Scottish once believed that smoky quartz would heal the body (source: Folklore, legend, and healing properties).

The study specimen in this paper is one of the few samples imported from the southern edge of China. Other minerals imported from this area of China are helvite and topaz. This interesting combination of spessartine and smoky quartz crystals makes an attractive addition to a mineral collection

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Note: This short article was done for the Lake George Gem and Mineral Club Pebble Pup Group by Patrick Glover, a Junior member of the club. Patrick, an unassuming 12-year-old, attends all field trips. APA reference style was used. Lake George Gem and Mineral Club, Inc. Article may be reprinted as long as author is given credit.



PRESIDENT'S CORNER

by Roger Pittman, CSMS

Only three more months to our show and we're already a month behind in getting ready! Yam needs a ton of help getting all the preparations ready and at our February meeting we encouraged members to get their own cases. As reported the club has some of the materials needed to make these cases that are available to members at no charge. Anyone who wants to build a case needs to contact me to obtain these materials. I have also been aware that there are a few people who would like to have a case but are not in a position to build their own. While I am "retired," I currently watch three grandchildren ten hours a day and have my ninety-three-year-old mother living with me; but I would be willing to build or assist with the construction of two cases between now and our June show. The people who want this service would be responsible to cover the cost of materials and could do as much or as little of the labor as desired.

Our March program will be a presentation by Bob Landgraf, "Exhibiting 101," where Bob will provide us with the basics of assembling a case, making risers and creating an eye appealing display. As promised to the crystal study group, we will again have a drawing for mineral specimens and I can guarantee that there will be three topaz specimens from the Thomas Range.

Roger

FROM THE LIBRARY

by Joni Peterman, CSMS

While Frank and Ellie are on the adventure of a life time to the land down-under, Joni Peterman is staffing the CSMS library. Remember this is your library, so CSMS members take advantage of the extensive learning resource data available.

Be sure to look at CSMS website to make your selection then Email Joni at rp_colorado@hotmail.com. We greatly appreciate donations from everyone. We don't accept only books; bring in DVDs, videos, and magazines, anything relative to CSMS.

This is your library. We encourage all CSMS members to take advantage of our fairly extensive inventory of reading material. Check the CSMS website to make your selection then Email or call Frank or Ellie to make your request. We appreciate all mineralogical book donations



Hayward's Annual Sale!

Bill Hayward's Annual Crystal and Mineral Sale will be held Saturday and Sunday, March 19th & 20th, from 10 a.m.-5 p.m. both days, at 3286 Quitman Street in Denver, CO 80212. For more information, call 303.455.1977.

RMFMS PRESIDENT'S LETTER

BY BILL SMITH, RMFMS

The temperature reached the mid-seventies this past week, and I sure thought Spring was in the air; however, I just looked at the weather forecast, and a wind chill factor of twenty degrees below zero is predicted here this week. I guess Spring is a little further away.

We've been working on the agenda for the Annual Delegates Meeting to be held in Colorado Springs and need to know of any new business you might want to bring up at the meeting. It may seem like June is a long way off, but when I think about how fast January came and went, we will soon be into Spring and time to start traveling.



Changes are continuing to be made to our Committee Chairpersons' positions. In my December President's Message, I listed several new Committee Chairpersons, and am now adding a couple more. Dr. Robert Carlson is our new Boundaries and Stationery/Trophy Chairperson. I am going to travel to Dodge City, KS, to pick up the RMFMS and AFMS supplies from Richard Goodnough and will fill that position for now. Plans are to have a Supplies table at the Colorado Springs show. I also just learned Judy Beck, our Labels Chair, has been very ill and on a long road to recovery. We wish Judy the very best, and get well soon. Until new chairs are obtained, I have appointed Bill Cain as Distribution and Change of Address. If you have a change of address, please send it to Bill.

My greatest concern now is the need for a club to help us host the 2012 and 2013 RMFMS conventions. You can add it to your regular show and many of us will be glad to help you with the RMFMS portion. To me, anyway, it is great to have personnel from throughout the Federation attend our show, have the club members meet those that lead the Federation, and get a first-hand view of just how our Federation operates.

Duck Season ended recently, and I really had a blast (pun intended). I admit, though, there are a lot of "dead ducks" still flying around.

Until next month,

Bill

ASK A GEOLOGIST

BY MIKE NELSON, CSMS



Jim from Denver contacted me about a trip to the Tucson Show, which I am happy to answer. However, the discussion will not be available for a trip this February so perhaps plan for 2012? Jim asked: *I am going to the Tucson Gem Show and would like to know about the Superstition Mountains near Phoenix and the Catalina Mountains at Tucson. It seems these two ranges are prominent in their skylines.*

Jim, you are correct in noting the presence of these ranges in “their skylines”. Although the vistas of both cities highlight several different mountain ranges, it seems as though the people of Greater Phoenix “claim” the Superstitions just as the citizens of Greater Tucson are rightly proud of the Santa Catalinas. One interesting aspect of both ranges is the presence of “lost gold mine” stories. These stories, plus the fact that the Catalinas have produced both lode and placer gold while the Superstitions District had lode mining, makes for some interesting stories. I will try to present both!



Fig. 1. Weavers Needle, a prominent landmark in the Superstition Mountains. The Needle is not a volcanic neck but an erosional remnant of indurated volcanic tuff.

Certainly the best known of the ranges (at least to most CSMS members) would be the Superstition Mountains, presumed home of the Lost Dutchman Mine. Local legends, take your pick, has it that a very rich gold mine exists in the mountains and/or soldiers buried several bags of gold and/or the local Apache Tribe knew the location of a rich gold mine. Some variations of the story combine all three theories, and even add several other elements. Perhaps the best known of the many versions involves members of the Perlata Family “discovering” the mine that “belonged” to the Apache Tribe. These local Native Americans attacked the Perlatas around 1850 and killed all of the family miners. Gold seekers have been looking for the lost mine almost since that time! Among the early seekers was a German immigrant named Jacob Walz or Waltz (or several other spelling variations) who became a “dutchman” as people corrupted Deutsche (people of Germany) to Dutch (as in Pennsylvania Dutch). At any rate, as the story goes, Jacob rediscovered the old mine after befriending some member of the Perlata family only in turn to fall ill. On, or near his deathbed, Jacob drew a

crude map to the mine for a Julia Thomas.



Fig. 2. Stacked units of volcanic tuffs and rhyolite, Superstition Mountains. Photo courtesy of Charles Ferguson and the Arizona Geological Survey.

Another version of the story has been put forth by local, and noted, author Tom Kollenborn in the 14 January 2008 edition of the AJ News (www.ajnews.com): “The old “Dutchman” Jacob Waltz died in Phoenix at the residence of Julia Thomas at about 6 a.m. on Sunday morning, October 25, 1891. The circumstances associated with his death are as follows. Julia Thomas and Rhinehart Petrasch were attending to Waltz during his final hours. Pneumonia and silicosis had complicated his breathing and Waltz was struggling for air early that morning. Thomas and Petrasch were awakened by the sounds of his struggle and knew the end was near. Julia and Rhinehart rushed out to look for a doctor. Why both of them left Waltz’s side in a moment of crisis is not known. As they exited the house, Richard J. Holmes and Gidon Roberts were walking up the street and Julia asked Holmes to look after Waltz until they returned with the doctor. When Thomas and Petrasch returned with a doctor, Waltz was either dead or succumbed shortly thereafter. Holmes immediately explained the situation to Julia Thomas. He said Waltz had given him the materials in a candle box beneath his bed. Holmes gathered up his newly acquired possessions and left the Thomas’ residence. Holmes’ acquisition of Waltz’s candle box outraged Julia Thomas. According to Holmes and Thomas the box contained about forty-eight pounds of high-grade gold ore. It was estimated the gold contained within the candle box was worth about \$4,800.

Julia Thomas accused Holmes of being a thief. Roberts swore Waltz had given the candle box to Holmes. The local courts did not see it Thomas’ way and Holmes ended up with the candle box of gold ore. This created a schism between the Petrasch and the Holmes families and this schism has survived for more than a hundred years among storytellers of the Dutchman’s lost mine.”

All versions point to the next step and that is Ms. Thomas headed to the mountains looking for gold. She did not succeed but apparently did the next best thing and begin selling lost mine maps! By some accounts the sale was successful and Ms. Thomas collected a substantial sum of money.

Evidently none of the map purchasers found much since people still are looking today for the mine/gold and some local shops even have lost mine maps for sale—they seem to be versions of local lore and opinions and none seem autographed by Thomas or Waltz! In most cases a well known landmark, Weavers Needle, features prominently in the stories and maps

**Continued on Page
11**

(Fig. 1). As an added intrigue, several deaths seem associated with the many prospectors, including some of violence at the hands of others (or gremlins who guard the gold). In late 2009 I remember a story in the Denver Post about a local Denver resident who disappeared while hunting for the mine. More recently the remains of three prospectors who disappeared in 2010 were discovered in January of this year. Whatever the case, thousands of people each year still hunt for the treasure, and over the years several ten's of books have been published describing the Lost Dutchman Mine.

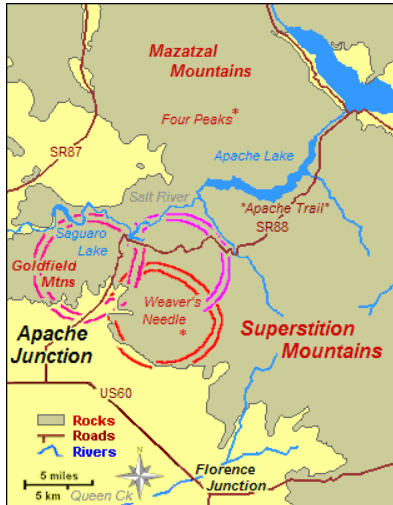


Fig. 3. Map showing location of Superstition calderas. Sketch courtesy of Gemland.com.

What is probably more interesting, at least to a geologist, concerns the history associated with these mountains. Although some remnants of Precambrian igneous, metamorphic, and sedimentary rocks are present in the Superstitions, the majority of the rocks exposed in the range are volcanic in nature, including thick layers of welded and non-welded tuff, and rhyolitic lava, spewed from massive supervolcanos (Fig. 2). As each of these large volcanoes sort of blew out their insides they collapsed and calderas formed (www.gemland.com). There were at least three, perhaps more, of these supervolcanos in the area of the Superstition Mountains, each caldera was around 10-12 miles in width with varying geologic ages: Superstition Caldera (~25 Ma), Goldfield Caldera (~15 Ma), Tortilla Caldera (~15 Ma) (Fig. 3). Today, after extensive erosion, all that remains of these calderas are immense thicknesses of tuff and rhyolite. The entire area has



Fig. 4. West end of the Superstition Mountains as seen from AZ SR 88. Layers of volcanic tuff comprise the mountain face.

been referred to as the Superstition Cauldron Complex (Sheridan, 1978). Other volcanics as young as ~3 Ma are present and the range itself owes its elevation to late Tertiary Basin and Range faulting and uplift.

The easiest place to observe the mountains is from the Apache Trail, AZ SR 88, running from Apache Junction to the Apache Lakes on the dammed up Salt River (Fig. 3). It is a beautiful drive and there are great exposures of the volcanic rocks along the road. The traveler also is blessed with a fantastic view of the west end of the Superstitions (5057 feet) (Fig. 4). At Tortilla Flats, about 13 miles up the road, the pavement ends at Canyon Lake; however, a good gravel road continues for ten's of miles. SR 88 is also the approximate boundary between the Superstitions and the Goldfield Mountains to the west. The rocks in the Goldfields are similar to the Superstitions as they are part of the same volcanic environment, the Superstition Cauldron Complex. It is in the Goldfields that almost all of the gold and silver in the area has been extracted---not in the fabled Superstitions! In 1892, a year after the death of Jacob Waltz, four prospectors from Mesa, Arizona, searched the area west and north of the Superstition Mountains. They found the crumbling remains of mine shafts in a very old mining camp believed to have been from activity of the "Old Spanish". And, they found gold---in small quartz veins that had experienced hydrothermal activity. Over the years the many mines and claims (Mammoth, Bull Dog (thought by some to be the Lost Dutchman), Black Queen, Old Wasp, Bluebird, Mammoth 2, Tom Thumb, Golden Hillside, Fair Strike, Copper Crown, Palmer, Treasure Vault, High Flyer, Gold Bond, Lazy Doc, Gold Strike, Iron Horse [Lucky Boy] Queen, Black King, Tom Thumb) yielded about 61,000 ounces of gold and 22,000 ounces of silver (Wilburn, 1987). Today the "ghost town" of Goldfield, once home to stamp mills and several thousand people, is being reborn as tourist destination. Some mine dumps seem accessible along SR 88 and I have collected small amounts of blue chalcedony but not much else (Fig. 5).



Fig. 5. Mining activity in volcanic rocks of the Goldfield Mountains along AZ SR 88. The site still has several concrete pillars and abutments while pieces of steel cable litter the ground. The best that I could find was a few pieces of blue chalcedony (and not good ones).

Continued on Page 12



Fig. 6. Folded schists of the Wilderness Peak Granite (45-50 Ma) exposed along the front of the Santa Catalina Range. View is looking west toward Canada del Oro Basin (middle view) and Tortolita Mountains (far distance). The Canada del Oro flows south (left) along the front of the range.

The Santa Catalina Mountains dominate the skyline east of Tucson, Arizona. They are a typical Basin and Range chain with large bounding normal faults on either side. West of the Catalinas is the Canada del Oro Basin, a graben filled with several thousand feet of sediments eroded off the high mountains. The coalescing alluvial fans (debris shed off the retreating mountains) from the Catalinas seemed to have merged with similar fans coming off the Tortolita Mountains (west of the Basin) about one Ma (Bezy, 2002) (Fig. 6). Most of the sediment in the Basin is composed of pieces of granite, schist and their mineral components such as feldspar, quartz and muscovite. This seems logical since the western mountain front is composed dominantly of different types of granite emplaced during the Precambrian (Oracle Granite, 1.45 Ga) and the Tertiary (Wilderness Suite Granite, 45-50 Ma; Catalina Granite, 26 Ma) (Bezy, 2002) (Fig. 7).



Fig. 7. Western front of Santa Catalina Mountains as seen from Catalina State Park. Exposed rock is the Tertiary Wilderness Peak Granite.

The major drainage along the western front of the range is the south-flowing Canada del Oro with tributaries coming down from the mountains and joining it at right angles. Most likely this rather straight-

flowing stream follows the course of the western bounding fault termed the Pirate Fault. Mt. Lemon at 9157 feet is the highest point in the Catalinas and has a ski resort---not a very good proposition in this dry 2010-11 winter. The name, Santa Catalina, may have been bestowed by a Jesuit priest, Eusebio Francisco Kino, who was busy converting the Tohono O'odham (local Native Americans) to Catholicism in the late 1600's. As with many places in the west, Spanish miners soon followed in the footsteps of the proselytizing priests. They evidently found placer gold in a creek and named it Canada del Oro or Gulch of Gold, a name that has intrigued me for the several years that I have been coming to Tucson.

The area also has its share of lost mine stories, although nothing to quite match the Lost Dutchman up at Apache Junction. Most of the tales seem concerned with the Iron Door Mine (gold) and La Esmeralda (silver) in the northern section of the Catalinas. Clay Thompson of the *Arizona Republic* in the 10 December 2007 edition reported: "at some point in the 1750s or 1760s Jesuit missionaries feared for their lives, either because of a revolt by their Native American charges or because of attacks by the implacable Apaches. So they stashed a whole bunch of silver and gold in either a mine or a cave somewhere in the mountains north of Tucson and sealed it with a heavy iron door - *minas de fierro con puerta en la Canada del Oro*. Then the Jesuits lit out for friendlier environs, and over time the exact location of the treasure was lost.

Lots of people have searched for it over the years, but obviously, no one has ever found it, if, indeed, it is there to be found. One of the people who believed in the legend was Buffalo Bill Cody, who owned some mines in the area at one time and looked around a bit for the Mine With the Iron Door.

In 1923, a popular storyteller named Harold Bell Wright cranked out *The Mine With the Iron Door*, a novel featuring brave and honest prospectors, a plucky orphan girl, a wrongly accused hero and a couple of villains named Sonora Jack and Lizard. The novel was made into a movie of the same name in 1924 and again in 1936."

There is at least one region, the Southern Belle District but sometimes referred to as the Catalina or Oracle District, that actually has produced both lode and placer gold. The mine, "a former surface and underground Au-Pb-Ag-Cu-W-silica mine", evidently was closed in 1964. "Mineralization is a tabular ore body" hosted in rocks of the Precambrian Apache Group (exposed between the Oracle Granite and the Catalina Granite). Mineralization in the quartz veins "is probably associated with a Lower Cretaceous-Tertiary intrusive period" (www.mindat.com).

I have thus far been unable to gain access to the Southern Belle property, so I did the next best thing---grabbed my gold pan and tried to locate a placer deposit in Canada del Oro. I did find a single small piece of flour gold but not much else. Toole (2007) suggested that since the stream course contained 60-200 feet (actually I think it is much greater) of "overburden" then the gold would be down on the bedrock. But he also opined that perhaps a metal detector (which I do not own) could locate surficial nuggets.

My lack of success with the pan is probably the norm for Canada del Oro. It appears that for several years after members of the local Apache Tribe quit discouraging exploration, miners tried to make a living with placers but activity seemed unsustainable over the long term. Wilson (1933) reported "numerous old pits, trenches, and tunnels indicate considerable early placer mining, and many thousand dollars worth of gold are reported to have been recovered. The production recorded from 1903 to 1924, inclusive, amounted to \$11,351 [this was at \$20 gold so at current price of ~\$1350 would translate into ~\$766k]...During the 1932-1933 season, approximately thirty men intermittently carried on small scale rocking and

Continued on Page 13

Panning in the Canada del Oro region, chiefly on the northern side of the creek. Although one \$25 nugget [1.25 oz] and a few \$5 nuggets [.25 oz.] were reported, the average daily returns per man were seldom more than fifty cents”.

The western flank of the Santa Catalina Mountains has one of the nicest parks around—Catalina State Park. I camp here each winter season and enjoy hiking into the mountains through the forest of saguaro and up into the high country. My favorite hike is the 2.8 mile trek (one way) to Romero Pools, a series of *tinajas* (rock tanks) in the Wilderness Suite Granite (Fig. 8). The walk takes me through the Canada del Oro, over the alluvial fans, up through the folded schists, and finally to a green refuge in the granite. It is an invigorating trip.



Fig. 8. Tinajas at Romero Pools in the Santa Catalina Mountains. The water attracts a wide variety of wildlife, including numerous birds. The plant life is totally unlike the surrounding desert environment of cacti, palo verde, and mesquite.

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CSMS FIELD TRIPS

Have you noticed, we are getting some warm days and that means that Field Trip Season will be starting in the near future? While there is always a chance for some inclement weather, the field is beckoning. As Dr. Jones said, “You gotta get out of the library.”

Our first Field Trip will be on Saturday, April 30th (8:45 AM in Portland, CO) to one of our favorite spots – the Holcim Cement Quarry. Once again Joe Lamanna of Holcim has kindly arranged for us to visit the quarry and gather calcite crystals, marine fossils and “pyrite balls”. The details for the Field Trip have been posted on the CSMS website. There are some special safety requirements for this trip and limits on the number of people that can attend. Look over the description to see if it all works for you and let me know if you wish to participate.

We are also busily planning a number of Field Trips in conjunction with our June Shows. These Field Trips are part of the package offered to attendees of the Rocky Mountain Federation of Mineralogical Society Conference, so they will get first shot. If all of the slots are not filled by the assigned deadline, these Field Trips will be opened up to CSMS members.

We will be adding more Field Trips throughout the season so please check the website (csms.us) often for new opportunities. Also, if you wish to lead a Field Trip please contact Yam at YAMOFTHWEST@gmail.com and share your thoughts so we can provide more opportunities for our fellow members to visit more sites.

We are looking for ideas and leaders for the 2011 Field Trip Season!



Courtesy of Richard Lackmond:



CARVING THE COMMISSIONED SUNSTONE by

Sherris Cottier
Shank

In December 2010 I received a piece of sunstone rough from clients who live in Washington State. They had mined the sunstone themselves at the Spectrum mine near Plush Oregon. The owner of the mine suggested that they get the rough carved and recommended me to do the job. I was pleased and honored to be involved in their project.

I have carved sunstone for several other sunstone mining clients in the past and truly enjoy bringing out the best their hard won sunstone has to offer.

Oregon sunstone comes in a variety of qualities and colors and if they are inclusion free, most of them can be carved to great effect. From the deep cherry red crystals to the gems that combine red and green, to the sunset colors with schiller in them, all offer superior carved gem potential. Some of the sunstones I have carved for clients have become sculptures and some have become gems to be set into jewelry. Each one is individual and requires its own special design.

This article details the steps involved in carving a piece of rough for a client, and the artistic decision-making process required to release the best possible carved gem from the raw crystal. I took photos during the process to show the clients why certain sections of rough needed to be removed and to illustrate how the carving evolved into it's finished form.

The client's original piece of rough weighed almost 70 cts, and exhibited typical sunstone color distribution with a core of sunset red color in the center surrounded by areas of clear crystal. Most of the clear crystal areas were filled with large planes of inclusions that had to be removed. Fortunately most of the red area was inclusion free.

Because the inclusions were extensive, I was going to have to saw away a lot of the original crystal and I estimated that the final gem would weigh 10 cts. This is always a hard pill to swallow when you are looking at a large piece of rough, but after years of gem carving I

know that is best to cut your losses and celebrate the parts of the gem that are whole and workable. I call this "the zen of carving." We were all surprised and delighted when the finished weight turned out to be 16.27 cts. Sometimes the universe is kind.

The clients and I discussed the style of carving they would most like to have. Because the rough did not have a lot of depth it was suitable for one of two styles, either a flat bottom carving or a briolette. A flat bottom carving is cut with a flat bottom like a cabochon but the top is dimensionally carved. A briolette style carving is shaped like a drop and drilled from the top. It can be suspended from a bail with a post that is cemented into the drill hole.

The clients chose a briolette style carving because it would show the maximum amount of the finished gem and would be easiest to set.



This is the rough as I received it. The long white line in the upper left quadrant is the edge of one of the many plane-like inclusions in the clear crystal area. I sent the client several photos showing these inclusions and explained that all of the clear crystal areas would need to be removed.



Here you can see the major planes of inclusions outlined with a sharpie pen. The inclusions start in the red section of the rough but do not penetrate the whole depth of the stone in that area. They slant down into the white crystal areas where they fill the whole depth of the rough.

Continued on Page 15

The curved line running through the included area shows where I will make the first saw cut. This allows me to saw off all the parts that are fully included, while leaving the included parts in the red area untouched. After the largest included areas in the clear crystal section have been removed I will remove the inclusions in the red area slowly, taking off only as much gem material as is absolutely necessary.



This is the end view of the rough after I have sawed off the major portions of inclusions in the white crystal area. The black lines outline where there are still inclusions to be removed. I will slice off only the surface sections containing the remaining inclusions, retaining as much of the red areas as possible.

This is the rough after all the sawing and ready for "preform." Most of the white crystal areas have been removed as well as surface sections of the red area. There are still inclusions in the rough that need to be eliminated but those will be ground out with diamond tools in the pre-forming stage, or in some cases carved through and incorporated into the final design. At this point the rough weighs 43.45 cts.



The adventure continues next month, with preforms, carving, and the finished product!

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~ Spring

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605-

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
MARCH 2011 — CSMS CALENDAR						
		1	2	3 7 p.m. Board Meeting	4	5
6	7	8 Micro-Mounts Cancelled until Jan. 7 p.m. Fossil Group	9	10	11	12 12-4 p.m. Lapidary Group— 6811 Mission Rd., Sharon Holte's place.
13	14	15	16	17 7:30 p.m. General Assembly 5:15 & 6:30 Pebble Pups & Juniors	18	19 12 p.m. Jewelry Group
20	21	22	23	24 7 p.m. Crystal Group 7 p.m. Faceting Group	25	26
27	28					

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS

Feb—Crystal
May—Jewelry
Aug—Picnic

Mar—Faceting
June—Lapidary
Sept—Projects

April—Fossil
July—Micromounts
Oct—Board

Area Code 719

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VICE PRESIDENT	Kay Thompson		
SECRETARY	Joni Peterman		
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PROJECTS GROUP	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com

Locations

Board Meeting: 1st Thursday
@ 7:00p. Senior Center, David
Olsen: 495-8720

Crystal Study Group: 4th
Thursday of the month @ 7:00p,
Senior Center; Kerry Burroughs:
634-4576

Faceting Group: 4th Thursday
@ 7:00p, Senior Center, Paul
Berry, 578-5466

Fossil Study Group: 1st Tues-
day @ 7:00p, Senior Center,
Mike Nelson, csrock-
guy@yahoo.com

Jewelry Group: 3rd Saturday
@ 12:00p, 15610 Alta Plaza
Circle, Peyton, Bill Arnson, 749-
2328

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

Lapidary Group: 2nd Saturday
@ 12:00p, 6811 Mission Rd.,
Sharon Holte.

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

Project Group: Meeting time
TBD, Ron "Yam" Yamiolkoski

FEBRUARY 17, 2011 GENERAL ASSEMBLY MINUTES

By JENNIFER BEISEL, CSMS SECRETARY

MEETING CALL TO ORDER

Call to order at 7:30 pm by CSMS President Roger Pittman

APPROVAL OF DECEMBER MINUTES

Accepted and seconded as printed in Pick and Pack

TREASURER'S REPORT

Presented by Al Zelenak

VISITORS, GUESTS, NEW MEMBERS

Recognized individuals new to CSMS

SATELLITE GROUP REPORTS

MICROMOUNTS – no report last month

JEWELRY – Saturday meeting, plan to reorganize

SHOW UPDATE/ JUNE 24, 25, and 26

Summarized by Kay for Yam

Signed on 16 vendors, 6 at the museum, 10 at the hotel

Set up at museum possible on Wednesday night prior to show for display cases

Packets anticipated by first week of March

Field trips being arranged; scheduled for before and after show hours

Security will be present at hotel for vendors and displays, electricity will be available as well as table coverings

Call for volunteers at both locations, even an hour is appreciated, please report to Yam

SCIENCE FAIR /MARCH 12

Request for judges; Roni Poteat and Jack Knoll

Mike Nelson has received the RMFMS Scholarship award (see new business)

NEW BUSINESS

Mike Nelson has received the RMFMS

Scholarship award; he will be choosing a qualifying student to receive a \$4,000 scholarship. Roger will forward info on eligible students.

PROGRAM

Presentation for evening, slide show of Bijou Basin

Display of gypsum and selenite from Oklahoma

ADJOURNMENT

Meeting adjourned approximately 8:20 PM prior to program

Joan L. Peterman

CSMS Secretary 2011



March 2011



Our Staff...

Teri Stoiber and Ann Proctor
Editors

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. Format does not matter. All submissions are welcomed.

DEADLINE for items to be included is the Saturday after the General Assembly every month.

To submit an item, please use the following:

For hardcopy photos or articles, mail to the address below or bring them to the General Assembly Meeting. All 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.

All articles not shown with an author are provided by the Editor.

Mail or email to:
blacklabaccounting@gmail.com

Pick & Pack Editors
PO Box 2
Colorado Springs, CO 80901

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Here we are in March already, 2011 is flying by with sonic speed! Thank you to this month's contributors, including those of you who had external forces working against you. We have terrific articles from a 12-year-old Pebble Pup, Mike Nelson, and a contribution by Richard Lackmond on the carving of a sunstone, which will be continued next month. Pete Modreski continues to entice us with studies, projects, and more—check out his section, as well as the WMMI's upcoming specials! Shows, the annual auction, and field trips are starting to come in, so be ready for the adventures! We also need to remind those of you who have business card ads in the Pick & Pack, the ads are due annually, and you will be receiving invoices from our Treasurer regarding the balance due. We ask, once again, that anyone in charge of any of the satellite groups, as well as chair members, to check your information and submit correct info (name, phone number, email, meeting info) to us asap so the calendar and directory are current—it only takes a minute to email the info, and keeping the P&P current is a must! Thank you, once more. Teri & Ann

CLASSIFIEDS . . .

NOTICE—Items listed for sale in the Pick & Pack are displayed only as an informational service to our members and advertisers. CSMS and/or the Pick & Pack do not promote nor warranty any item displayed. The sellers and buyers are responsible for the condition and ownership of any item shown.

CSMS T-Shirts, Badges, and Pins are available for sale at each meeting. See Store Keeper, Ann Proctor.

Have You Picked Up Your Membership Award Pin?

If you celebrated a CSMS anniversary in 2007, 2008, 2009, or 2010, your year pin award is available from the Storekeeper, Ann Proctor. Last call for 2007 pins.



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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, beginning at 7:30 p.m. at the Colorado Springs Senior Center, 1514 North Hancock Blvd., Colorado Springs, CO. **Visitors are always welcome.**

CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, see page 13.

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—\$10 Corporate—\$100

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.