

PICK&PACK

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PICK&PACK

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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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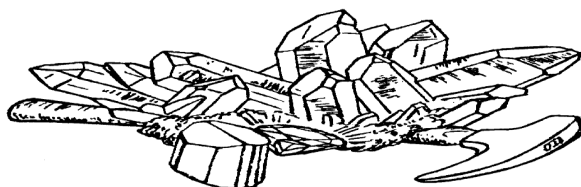
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June 2012 CSMS Calendar	
<p>Tue., Jun 5—<i>Fossil Group</i>,</p> <p>No meeting</p> <p>Nelson, Leader, csrock-guy@yahoo.com</p>	<p>Thurs., Jun 7—<i>Board Meeting</i>,</p> <p>7 p.m., Senior Center.</p>
<p>Tue., Jun 12—<i>Micromounts</i>,</p> <p>7 p.m., Senior Center.</p> <p>Dave Olsen, Leader, 719.495.8720</p>	<p>Thurs., Jun 21—<i>General Assembly</i>, Pete Modreski – Colorado Diamonds 7 p.m., Senior Center.</p> <p>6:30 p.m. to 7:15 p.m. /</p> <p>Pebble Pups—canceled until September.</p> <p>Meetings will resume in Sep.</p>
<p><i>Crystal Group</i>, No meetings over summer. Regular meetings resume in September. Kerry Burroughs, Leader, 719.210-6389</p> <p><i>Faceting Group</i>, 7 p.m., Senior Center. Paul Berry, Leader, 719.578.5466</p>	<p>Jun, <i>Jewelry Group</i>, By appointment only. Please call, Bill Arnson, Leader, 719.337-8070 to schedule a mutually agreeable time.</p> <p>15610 Alta Plaza Cir., Peyton.</p>
<p>Sat., Jun—<i>Lapidary</i>—RSVP please. If you would like to cut stones, call Sharon Holte at 217.5683 for an appointment.</p>	<p><i>Camera Club</i> is looking for a leader and meeting place, date and time. Interested? Contact Roger Pittman.</p>
<p>Project Group—TBD—contact Ron "Yam" Yamiolkoski, yamofthwest@gmail.com</p>	
<p>June 22, 23, 24</p> <p>CSMS—Rock & Mineral Show at WMMI</p>	<p>Friday, and Saturday 9:00 a.m. to 4 p.m.</p> <p>Friday—Picnic</p> <p>Sunday, 9:00 a.m. to 3:00 p.m. and clean-up</p>
<p>For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms.us</p>	<p>The Senior Center is located at 1514 North Hancock in Colorado Springs.</p>

July 2012 CSMS Calendar	
<p>Tue., Jul 3—<i>Fossil Group</i>,</p> <p>No—meeting.</p> <p>Nelson, Leader, csrock-guy@yahoo.com</p>	<p>Thurs., Jul 5—<i>Board Meeting</i>,</p> <p>7 p.m., Senior Center.</p>
<p>Sat, Jul 7—<i>Field Trip</i>, CSMS Peridot Claim, Trip Leader: Ronald "YAM" Yamiolkoski</p>	<p>Sat, Jul 14—<i>Field Trip</i>, Joe Dorris Topaz Claim, Trip Leader: Ronald "YAM" Yamiolkoski</p>
<p>Thurs., Jul 19—<i>General Assembly</i>, TBD - Possibly small group leaders presentations to new members 7 p.m., Senior Center.</p> <p>6:30 p.m. to 7:15 p.m. Pebble Pups & Juniors. Steven Veatch, Leader, 719.748.5010</p> <p>Meetings will resume in Sep.</p>	<p><i>Crystal Group</i>, No meetings over summer. Regular meetings resume in September. Kerry Burroughs, Leader, 719.210-6389</p> <p><i>Faceting Group</i>, 7 p.m., Senior Center. Paul Berry, Leader, 719.578.5466</p>
<p>Sat, Jul 28—<i>Field Trip</i>, Hartzel Barite, Trip Leader: Ronald "YAM" Yamiolkoski</p>	<p>Jul, <i>Jewelry Group</i>, By appointment only. Please call, Bill Arnson, Leader, 719.749.2328 to schedule a mutually agreeable time.</p> <p>15610 Alta Plaza Cir., Peyton.</p>
<p>Sat., Jul—<i>Lapidary</i>—RSVP please. If you would like to cut stones, call Sharon Holte at 217.5683 for an appointment.</p>	<p><i>Camera Club</i> is looking for a leader and meeting place, date and time. Interested? Contact Roger Pittman.</p>
<p>Project Group—TBD—contact Ron "Yam" Yamiolkoski, yamofthwest@gmail.com</p>	
<p>For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, csms.us</p>	<p>The Senior Center is located at 1514 North Hancock in Colorado Springs.</p>

Introducing the Weld County Rock and Mineral Society's Annual Rock Show by Melanie DeHart

Hello Fellow Rock Hounds:

Announcing that the Weld County Rock and Mineral Society in Greeley, Colorado will be having their annual rock show:

October 6-7, 2012

Hours: Saturday 6th 9:00 am – 5:00 pm

Sunday 7th 9:00 am – 3:00 pm

Island Grove Park Bunk House

607 – North 15th Avenue, Greeley, Co.

Free parking and admission.

There will be 4 different types of raffles, gold, Gem and Jewelry Tray, Natural Stone Container and Fossil Box.

At this time we will have rough and polished rocks, fossils, jewelry, raffles, door prizes, and children's activities with some demonstrations. Also available are booths and tailgaters spaces. For more information on prices contact Melanie DeHart. / For more information please contact: Melanie DeHart / [970-352-8149](tel:970-352-8149)

Email: hamlethouse@yahoo.com

Meeting commenced at 7:03 pm with the Pledge of Allegiance.

Kay Thompson introduced our speaker Martin Gooth. He presented on crystal diagrams and fluorescent minerals.

After the presentation tasty goodies were enjoyed by all.

Business meeting: President Roger Pittman called the business meeting to order at 8:40 pm.

The April General Meeting minutes were approved.

Guests were introduced.

Chairmen for the subgroups reported on their clubs. Only the faceting group will continue to meet in the summer. All of the other groups will resume their meetings in September 2012.

The lapidary and jewelry groups are still active but by appointment only.

There are five field trips currently listed on the web site.

June show:

We will have our traditional pot luck supper on Friday, June 22, 2012 at 6:00 p.m.

Roger gave a brief update on the show. We have 15 booths paid for and Roger anticipates more soon.

The frame for the sign to be installed at WMMI will be installed soon.

Picnic proposal:

Yam proposed that the yearly picnic program be changed to September in order to include the new members and facilitate larger attendance. The proposal reads: **Be it proposed that the date, time and location of an annual CSMS Picnic will be at the discretion of the CSMS Board. This includes whether or not there shall be a picnic in any given year.**

Webmaster:

Brian Patterson has resigned his position as webmaster. Volunteers were solicited from those in attendance. Gary Del Valle volunteered and was approved by the membership. For those of us needing Gary's assistance: phone is (719) 260-6386...
gdv123@comcast.net

The meeting was adjourned at 8:50 pm.

Respectfully submitted by Jean Miller

The End



Picture by
Dick
Lackmond

"From the
Back Yard"



Spring Spree Report.

Member at Large Mark Lemesany approached the board several months ago with a plan to attend the Spring Spree 2012 event. This event generally attracts around 6,000 people. The board felt that it was certainly worth a try to receive the exposure of this many people.

With the board's assistance Mark was able to reserve a spot, obtain the required proof of insurance, fliers about the club and fliers with discount coupons for our show the following weekend. Mark was also able to borrow tables and a sunshade, reducing the cost of the space to CSMS.

Jack & Kaye Thompson loaned Mark an excellent display showing the types of crystals that occurs in sedimentary rock. Mark spent the entire weekend showing many of his own specimens and borrowed specimens showing both mineral and fossils that can be found in Colorado. Mark's mom peeled and stuck hundreds of discount stickers onto our show fliers on Saturday. Sharon Holte came to help out Saturday and Mark's friends Dale & Michelle stayed all day Sunday talking with the visitors. Not every person that walked by stopped to talk, but many people did, lot of fliers were picked up and we also invited them to our next meeting as well as the show. We will probably need everyone to help out with refreshments! Thank for the big hand Mark! Roger Pittman

The End

Western Museum of Mining and Industry Special Event

Mining Museum 30th Anniversary & Membership Celebration

Saturday, July 14 -- 9 a.m. to 4 p.m.

Opened in 1982, we are still the "Museum that Works!" and visitors to the July 14th anniversary celebration will experience it all--our steam engines will rumble to life; our trammer will speed down the rail; and a "top down" tour of the Museum's Stamp Mill Gold Refinery will be offered. Complete with a piece of anniversary cake and a special admission rate of only \$3.00 per person (that's just \$0.10 per year!), this will be a special, interactive celebration for the whole family. Additionally, our Board of Trustees' want to recognize and appreciate the support of the Mining Museum's Membership so throughout the day, our board will be available to talk, and our contributing members will receive a small gift to commemorate this anniversary. The Museum is located at 225 North Gate Blvd., Colorado Springs, Colorado (I-25 at Exit 156A, just East of the Air Force Academy). Call (719) 488-0880, or email at info@wmmi.org for additional information.

Thank you for your support of the museum! / Brad Poulson, Programs & Marketing Coordinator

Western Museum of Mining & Industry / www.wmmi.org
Phone: 719-488-0880 / Fax : 719-488-9261

PRESIDENT'S CORNER

by Roger Pittman, CSMS

June 2012

Presidents Message:



It's nearly June as I write this message and the weather has warmed up and those of you who can go digging are out digging. I am so jealous! Yea sure I can go out - in between babysitting and preparing for the show. Mark Lemesany, my son Wayne, Brad from WMMI and I took the sign frame out to WMMI dug a couple of holes and set the frame in concrete. A few days later my wife and I put a white board up on the frame. We found out quickly that the dry erase markers we used to letter the sign do not wipe, or wash off easily. I also want you to take note that we desperately need someone with some artistic ability to letter this sign as my effort(s) give the appearance that a six year old would have done a better job. Mark Lemesany and I are going to "Spring-Spree" June 16th hoping to advertise our club & show; we'd appreciate any volunteers to help us out.

I regretfully have to report that Kaye Thompson has turned in her resignation due to health issues. As you know Kaye has been responsible for the great programs that we've had for the past year and a half. She and Jack have been a pair of the hardest working volunteers for the club for as long as I can remember and for many years before that too. Kaye has already made the arrangements for the rest of this year's program schedule. The programs continue to be the high quality she has found for us in the past. Jack Null has graciously accepted an appointment to finish Kaye's term as Vice President. Thank You Jack!

The End

Roger Pittman

TRAVELING THE BLUE HIGHWAYS V: WEST RIVER SOUTH DAKOTA

Mike Nelson csrockguy@yahoo.com; www.csmsgeologypost.blogspot.com

Lord, I was born a rambling man;

Trying to make a living and doing the best I can.

And when it's time for leaving' I hope you'll understand

That I was born a ramblin' man. Hank Williams Sr.

The last *ramblin'* contribution to the Pick & Pack (May 2012) followed my trip on Blue Highways around the flanks of the Black Hills of South Dakota. Blue Highways is a term coined by William Least Heat Moon for secondary roads, often printed in blue color, on older Rand McNally maps. I have always been a Blue Highway sort of person, partially due to my geology interests and partially due to my general inquisitiveness of all things natural. It has been a good life.

The area of South Dakota east of the Black Hills (known to the local population as West River) is a great place to just explore and marvel at the landscape; unfortunately, many travelers choose the easy option—Interstate 90! I have traveled hundreds of miles on many of these interior roads and been able to observe some fantastic geology. This contribution will attempt to spotlight a few of the highlights.

There are many "lonely" Blue Highways in South Dakota and SD 79 is one of those; however, it is a road that I enjoy driving (in good weather). Starting in the town of Sturgis on the east flank of the Black Hills (and home of the summer motorcycle rally), SD 79 heads north for North Dakota—but fill up your gas tank and stock up on snacks and water!

The first geological area of interest is Bear Butte, a few miles north of town. Also known as Mato Paha (Lakota), the butte is a sacred to a variety of Native Americans and visitors often see prayer bundles attached to trees. Since it is sacred, I chose not to hike the summit trail—just a personal choice.

Bear Butte is a laccolith and has domed up the overlying sedimentary rocks (Fig. 1). The intrusion is Eocene in age, ~50 Ma, and seems related to other Tertiary intrusions along the flanks of the Black Hills, i.e. Devils Tower and Missouri Buttes in Wyoming, and Crow Peak in the northern Hills. The rock type comprising Bear Butte is a rather monotonous porphyritic phonolite, a "strange" sort of fine-grained rock (with some larger grains, hence the porphyritic texture) composed mostly of alkali feldspar (orthoclase) and nepheline. The summit is at 4426 feet and there is a vertical relief of ~1250 feet.

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Fig. 1. Bear Butte near Sturgis, South Dakota, is a laccolith.

Most of the Butte is composed of the igneous rock; however, on the east side there is a vertical bed of Minnecola Sandstone and tilted beds of Madison Limestone (Mississippian). These are remnants of older rocks pushed up by the intrusion (Fig. 2).

Continuing north on SD 79 the traveler comes to an intersection with US 212 south of the town of Newell. Take a side trip to the west on US 212 and visit Belle Fouché Reservoir (Orman Lake). Exposures surrounding the lake are dark black fissile shale (pretty ugly) of the Cretaceous Belle Fouché Shale. Streaked with thin beds of gypsum, the shale also yields pyritized nodules containing baculite cephalopods (Fig. 3). At low water levels the overlying Greenhorn Limestone produces numerous “shark’s teeth”. In the 1960’s I was able to collect several tens of teeth; however, the years and house moves (along with donations to aspiring paleontologists) depleted the collection except for a *Ptychodus*, a shell crushing shark (Fig. 4). Local collectors even call one of the thin limestone layers, the shark tooth layer.



Fig. 3. Pyrite nodule encasing a small baculite cephalopod.



Fig. 2. Tilted beds of Madison Limestone along flank of Bear Butte.

At Newell, US 212 trends northeast toward the town of Mud Butte. This is an interesting side trip if the traveler is interested in observing Teepee Buttes. These small (~25 feet in height) cone-shaped structures were formed around methane seeps in the Cretaceous (Pierre Shale) ocean. Today they are composed of limestone and shale and many contain numerous fossils, especially mollusks, and in particular the clam *Nymphaucina occidentalis*. *The structures are similar/identical to the Teepee Buttes found south of Colorado Springs (see Shapiro and Fricke for a great paper: Teepee Buttes: Fossilized Methane-seep Ecosystems)*. At one time I had a “box” of specimens (mostly clams) collected from South Dakota Teepee Buttes; however, with time they have “disappeared”.

After traveling about 60 miles north of Newell on SD 79, through ranch land with a sparse population, travelers approach one of the most beautiful areas in the northwestern part of the state—Slim Buttes. These topographic highs are a very rugged area with a relief of perhaps 600 feet above the rolling prairie. The buttes preserve Tertiary rocks, White River and Arikaree Groups (Eocene to Miocene, similar to the “badlands” of southwestern South Dakota), sitting on top of uppermost Cretaceous and its somber gray-colored, rocks (Figs. 5 & 6). Deep canyons and steep cliffs abound in the buttes and it is truly a peaceful place with very nice road cuts (various types of cryptocrystalline quartz) and fantastic scenery. Vertebrate fossils are also present.

I would be very careful, however, about drinking water from any of the springs at the base of the cliffs as the water contains uranium at ~200 parts per billion. There are several abandoned uranium (carnotite) mines in the buttes and leakage has caused some contamination. Uranium was mined from the Chadron Formation when water leached the minerals from the overlying radioactive tuffs of the

Cont. Pg 7



Fig. 3. Pyrite nodule encasing a small baculite cephalopod.



Fig. 5. Arikaree Group slump on rocks of the White River Group, Slim Buttes. Photo courtesy of USGS (1953).

Geologists are historians, it is just that we study “older things” than someone termed a “modern” historian. However, at times the landscape gives us a chance to study both issues—rocks and modern history. Such is the case at Slim Buttes.

In June 1876, George Custer had suffered his inglorious defeat at the Battle of the Little Bighorn in southeastern Montana. The U.S. Army was rather stunned by results of the battle and decided that members of the Lakota and Cheyenne must be punished and forced back to the reservations. Therefore, General Phillip Sheridan sent General Alfred Terry and General George Crook to the southeastern Montana and western South Dakota to hunt for “hostiles” in drainage basins of the Powder, Rosebud, Heart, and Tongue rivers. It was a wet late summer in the region (causing all sorts of logistical problems) so Crook set his sights on the northern Black Hills and much needed supplies---the so-called “starvation march of 1876”. Terry decided to forgo the trek and returned to base camp. In early September Lt. Anson Mills and members of the 3rd Cavalry, on their way to Deadwood in the Black Hills, came upon the village of American Horse (Lakota) in the Slim Buttes. A battle ensued with the numerically-superior Cavalry killing several tribe members (including American Horse), capturing others, and burning the village. However, the battle was not over as the Oglala Lakota warrior Crazy Horse, along with several hundred warriors, was nearby and upon learning of the battle with American Horse rushed to the site only to find that Crook and his main column had arrived. A somewhat minor skirmish erupted with the Native warriors mostly firing from the top of the cliffs; however, few lives were lost on either side.

Crook finally made it to Deadwood a week later with Crazy Horse still on his tail and harassing his every move. However, the Army was able to claim victory, especially welcome after Little Bighorn, and in reality this was the beginning of the end for the Lakota and Cheyenne nomadic tradition. Or perhaps, Little Bighorn was the beginning of the end?

The last time I visited Slim Buttes, within the last decade, I plopped down on a cliff, consumed my lunch, and wondered about 1876. Today it is such a beautiful and peaceful area it is hard to imagine the “hard times” so many years ago. My only suggestion, is that if for some reason you are in the vicinity, take a small tour through Reva Gap and Slim Buttes.

There are a number of Blue Highways traversing east-west across northern South Dakota; however, my favorite is the somewhat lonely SD 20 heading east from Reva Gap to Mobridge on the Missouri River. Actually the road starts at the Wyoming-South Dakota state line at Camp Crook. This route crosses over a variety of rocks that are somewhat unfamiliar to readers in Colorado Springs. Above the ubiquitous Pierre Shale are the, in ascending order, Fox Hills Formation, Hell Creek Formation, Ludlow Formation, Cannonball Formation, and Tongue River Formation.

The Fox Hills, a unit that is also present around Colorado Springs, grades upward from the marine shales of the Pierre into marine and then into marine and brackish water sandstones. The unit represents the end of the great Western Interior Seaway and rocks are essentially shoreline deposits of the receding waters. Although the Fox Hills near Colorado Springs contains a few fossils, mostly small clams, there are parts of the formation in north-central South Dakota that are extremely fossiliferous. Some concretion layers have produced literally thousands, perhaps tens of thousands, of beautiful ammonites (and a plethora of other



Fig. 6. South face of Slim Buttes. Arikaree cliff face with White River Group below. Photo courtesy of USGS; taken in 1911.

Cont. Pg 8

invertebrates and vertebrates), especially of the genera *Discoscaphites* (Fig. 7), *Sphenodiscus*, and *Hoploscaphites*. They represent some of the youngest ammonites in the U. S. (remember the ammonites became extinct at the end of the Cretaceous).

Somewhere around the town of Timber Lake, a “long time ago”, I was able to collect some of these concretions with most specimens going to a museum. However, I was able to hold on to a single specimen shown below. Perhaps individuals may still collect on private lands.

The Hell Creek Formation spans the Cretaceous-Tertiary boundary and represents brackish to fresh water, mostly fine-grained rocks. Although the unit contains a wide variety of fossils, it is perhaps best known for its dinosaur fauna, especially the rather “odd ones” such as Ankylosaurs (armored), Ceratopsians (horned), Ornithopods (duck-billed), and Pachycephalosaurs (bone heads).

The Ludlow, Cannonball, and Tongue River formations generally are grouped together as the Fort Union Formation/Group and represent deposition in streams, floodplains, but especially swamps along the drying Western Interior Seaway. As such, the Fort Union contains vast amounts of economically viable coal beds. However, the collector is probably more interested in the petrified wood.

I have collected wood all along SD 20 in the western part of the state but perhaps the most spectacular exhibit is at the small town of Lemon (north of SD 20). Here tons of petrified wood have been hauled in to construct the “world’s largest petrified wood park” (Fig. 8). I suggest travelers look in road ditches in areas of Cretaceous outcrops for small pieces to collect.



Fig. 8. The “Castle” section of Petrified Wood Park, Lemon, South Dakota. Photo courtesy of Lemon, SD.

mining operations expose what is generally termed “western derived gravels” or the “Herrick gravels”. These pits produce nice specimens of chalcedony, jasper, quartz, and petrified wood (and sometimes vertebrate fossils). The stream gravels (the sand, cobbles and pebbles) appear to have a source area in the Black Hills (or further west?) and are most likely Miocene or Pliocene in age as they are overlain by Pleistocene glacial deposits further east.

SD 50 is a very good example of a Blue Highway where one travels through a couple of “ghost towns” (Bijou Hills and Academy), through a gap in an interesting range of hills (Bijou Hills), and past a large prairie “blowout” in South Dakota (Red lake). SD 50 heads north from near Platte (Gregory County) and ends, for this discussion, at Pukwana (Brule County; exit 272 on I-90). The anomalous Bijou Hills, including the Iona Hills, are a quite interesting geological feature since they extend from east of SD 50 to the west, crossing the Missouri River, and reappearing near Winner as the Red Hills. They are approximately 600 feet above local base stream, the Missouri River. On September 12, 1804, Lewis and Clark were having problems with wind and rain; however, Clark did note “Some very high hills on each Side (sic) of the river”. The day before, expedition chronicler Gass noted “The hills come close to the river on both sides”. George Ordway of the



Fig. 7. *Discoscaphites* collected from a concretion in the Fox Hills Formation. Width is 2.5 cm.

The White River is a major stream draining southwestern South Dakota, including the many Tertiary badlands. Local populations have used terrace sands and gravels at many localities from stream inception to joining the Missouri River near Chamberlain. If rockhounds can gain access to these pits the chances of locating petrified wood is very good (Fig. 9). I used to hunt, with good success, in the pits near the town of White River in Mellette County along Blue Highway US 83.

There are several localities along US 18 in Gregory County (south-central South Dakota) where gravel



Fig. 9. Petrified wood collected (Summer 1967) from gravel pits along the White River.

expedition referred to these as “mountains”. The rocks of the Bijou Hills are part of the late Tertiary Ogallala Group and the summits are capped by a hard orthoquartzite (tightly silica-cemented sandstone) that is generally green in color and easily recognizable (and quite collectable). The quartzite unit, actually a post-depositional cementing event, was first noticed and described by the pioneering geologist F. V. Hayden. He first visited the area (with F. B. Meek) in 1853, again in 1855, and with the Warren Survey in 1856. The most interesting aspect of this quartzite is that it has been found as Native American artifacts across the Midwest and evidently was widely traded among different groups.



Fig. 10. Bijou Hills near gap where SD 50 crosses the range.

The Hills also contain vertebrae fossils and those collected by the Hayden group are especially interesting. Joseph Leidy, one of the founders of vertebrate paleontology in the U.S., described the first specimen (1857) of the three toed horse, *Merychippus insignis*, as well as *Leptarctus primus* (a mustelid), *Mery-*

codus necatus (an antilocaprid), and *Hippodon speciosus* (a horse). Since that time other vertebrate faunas have been discovered and described from the Hills (Skinner and Taylor, 1967).

The town of Bijou Hills (now a ghost town with only a couple of residents but an interesting cemetery) was established in ~1869 and at its peak had numerous businesses and several residents it was situated along the Fort Thompson trail).

As SD 50 approaches I-90 a quite large body of water appears on the west side of the road. This is Red Lake, a natural body of water (no man-made dam and impoundment) that has been quite full since the early 1990's. Before that the basin had been almost dry for several years. In exploring the area during the drought years I found the presence of drilled artesian wells (warm) flowing into the reeds and cattails. It appears to be a blowout basin.

Ten miles to the east, at Chamberlain, is the “trench” of the Missouri River and its great exposures of the Cretaceous Niobrara and Pierre formations. They have been described previously in the Pick & Pack.

There is a “world of difference” between the surficial geology of western South Dakota (west of the River) and the eastern one-half of the state. West River has the Black Hills, the “badlands”, and tremendous exposures of Cretaceous rocks. East River is covered with drift left behind by the Pleistocene glaciers. The geology is fascinating (to those interesting in glacial geology) but collecting is quite limited.

This story concludes my travels on Blue Highways in Colorado, Wyoming and South Dakota. As always, the journey has been good as I like to live the words of Henry David Thoreau: *Go confidently in the direction of your dreams. Live the life you imagined.*

REFERENCES CITED

The Journals of the Lewis and Clark Expedition Online compiled by G. E. Moulton, university of Nebraska Lincoln <http://lewisandclarkjournals.unl.edu>

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Shapiro, R. and H. Fricke, 2002, Tepee Buttes: Fossilized Methane-seep Ecosystems in Geological Society of America, Field Guide 3.

Skinner, M. F. and B. E. Taylor, 1967, A Revision of the Geology and Paleontology of the Bijou Hills, South Dakota: American Museum Novitates No. 2300.

The End

CSMS Field Trips

June 23 - [April Fools](#) - Leader John Casto (XLS file)

July 7 - [Peridot Claim \(FMC\)](#) - Leader Ronald "Yam" Yamiolkoski (XLS file)

July 14 - [Joe Dorris Topaz Claim \(FMC\)](#) Leader Joe Dorris (XLS file)

July 28 - [Hartsel Barite](#) Leader Ronald "Yam" Yamiolkoski (XLS file)

Aug 11 - [Smoky Hawk](#) Leader Joe Dorris (XLS file)

Aug 18 - [GPOC \(Woody's claim\)](#) - Leader Ronald "Yam" Yamiolkoski (XLS file)

Aug 25 - [Peridot Claim \(GPOC\)](#) - Leader Ronald "Yam" Yamiolkoski (XLS file)

Oct 20/22 - [Yellow Cat etc](#) Yellow Cat/CISCO, Utaj & Grand Junction Mineral Show - Leader Marg Regel

Earth Science Events by Peter J Modreski

June 21 through August 31, 2012

Thurs., June 21, 7:00 p.m. at the monthly meeting of the Colorado Springs Mineralogical Society, a presentation by Pete Modreski, USGS, **Diamond Deposits of Colorado**; all interested persons are welcome to attend. At the Colorado Springs Senior Center, 1514 North Hancock Blvd., Colorado Springs. For more info see <http://www.csms.us>, click on current newsletter.

Fri-Sat-Sun, June 22-24, Pikes Peak Gem and Mineral Show and Rock Fair held at the Western Museum of Mining and Industry, Colorado Springs; 9 a.m. – 4 p.m. Fri. & Sat., 9-3 Sun.; 225 North Gate Blvd., I-25 exit 156A, Colorado Springs, Colorado; “Fun for the entire family; gem, jewelry, mineral and fossil vendors, free gold panning, rock identification, special kids area, silent auction, food vendors, exhibits, lectures, US Geological Survey booth; special turquoise exhibit from the Denver Museum of Nature and Science; sponsored by Colorado Springs Mineralogical Society; admission, adults \$5, children \$2, WMMI museum members free”. See <http://www.csms.us/> or www.wmmi.org for more info.

Sat., July 14, 9 a.m. – 3 p.m., **Dinosaur Discovery Day** at Dinosaur Ridge.

Sat., July 14, 9 a.m. to 4 p.m., **Western Museum of Mining and Industry 30th Anniversary & Membership Celebration**.

“Opened in 1982, we are still the “Museum that Works!” and visitors to the July 14th anniversary celebration will experience it all--our steam engines will rumble to life; our trammer will speed down the rail; and a “top down” tour of the Museum’s Stamp Mill Gold Refinery will be offered. Complete with a piece of anniversary cake and a special admission rate of only \$3.00 per person (that’s just \$0.10 per year!), this will be a special, interactive celebration for the whole family. Additionally, our Board of Trustees’ want to recognize and appreciate the support of the Mining Museum’s Membership so throughout the day, our board will be available to talk, and our contributing members will receive a small gift to commemorate this anniversary. The Museum is located at 225 North Gate Blvd., Colorado Springs, Colorado (I-25 at Exit 156A, just East of the Air Force Academy). Call (719) 488-0880, or email at info@wmmi.org for additional information. Thank you for your support of the museum!”

Aug. 9-12, “Contin-Tail” outdoor Rock Show, Rodeo Grounds, Buena Vista, CO; see www.coloradorocks.org

Sat., Aug. 11, 9 a.m. - 3 p.m., monthly **Dinosaur Discovery Day** at Dinosaur Ridge, Morrison CO.

Aug. 17-19, Lake George (outdoor) Gem & Mineral Show, Lake George, Park County, CO; see <http://www.lggmclub.org/>

The End

2012 CSMS Officers

Roger Pittman, President

Kay Thompson, Vice President

Jean Miller Secretary

Ann Proctor, Treasurer

Sharon Holte, Co-Editor

Ellie Rosenberg, Co-Editor

Roni Poteat, Membership Secretary

Mark Lemesany, Member-at-Large

Jack Thompson, Member-at-Large

Ron Yamiolkoski, Past President

2012 CSMS Chair Persons

Roger Pittman, Annual Show Chairperson

Ron Yamiolkoski, Field Trip Director

Ron Yamiolkoski, Science Fair Chair

Brenda Hawley, Historian

Frank & Ellie Rosenberg, Librarians

Camera Club Chair is Vacant

xxx, Social Committee Chair

Ann Proctor, Store Keeper

Kerry Burroughs, Crystal Studies Group

Paul Berry, Faceting Group

Mike Nelson, 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.

Special Field Trip

By Bob King / Past CSMS President (now residing in Cheyenne, Wy)

Bob says "Please join us"!

Cheyenne Mineral & Gem Society's Field trip

July 14 - 15 FIELD TRIP for TOPAZ, SMOKY QUARTZ & AMAZONITE

Trip leader: Bob Wade [\(307\) 632-9018](tel:(307)632-9018)

Bob Wade will go to Devil's Head on Friday (July 13) to make sure that he has a place to park his trailer. He will park his trailer just off of the road about one (1) mile SOUTH of TOPAZ POINT. There is a fairly large clearing that he will park in and will start digging in an area less than 100 feet from his trailer.

Go 5 or 6 miles from Castle Rock to Sedalia, CO.

Turn at the traffic light and go WEST on 67

Follow State Road 67 for 9 miles to the RAMPART RANGE ROAD.

Take the Rampart Range Road to the camp site.

Look for Bob's trailer. It has a Wyoming license plate with county "2" on it.

Expect to do some hard digging. Bob Wade and I have a great deal of experience digging for these minerals. I will try and get to the dig area by 10:15 on Saturday morning. It will be a great trip. I will be only going on Saturday, but Bob Wade will be there on Saturday and Sunday.

Bob King [\(307\)632-2702](tel:(307)632-2702)

The End

Webmaster Resigns

By Sharon Holte

During the last General Meeting our fabulous, dedicated, extremely knowledgeable webmaster gave his notice. Volunteers with experience were requested by Roger Pittman. Gary del Valle accepted the position. His phone number is (719) 260-7386. His e-mail address is gdv123@comcast.net. Of course, if you need, you can always send items to me at sholte@csu.org or SharonRocksCo@gmail.com.

Have a great rock hunting summer!

OOPS - posted after the hard copy went out....

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

Special Request

Florissant Fossil Beds National Monument by Betty Cain

I am sending this request to every Colorado Rock Club president or editor in hopes that you will ask your membership to support this request from the Florissant Fossil Beds National Monument in Florissant, CO. All you have to do is VOTE! This grant would be put to great use by the park. Won't you please help us win?

It's really easy to vote; just follow the one of the links below. Tell your members and friends to vote as many times as they can.

Thanks, Betty Cain RMFMS Editor

Hello everyone!

You may remember how Florissant Fossil Beds, the roaring mouse, won a Facebook contest sponsored by Energizer a while back. Well, we have a chance to win an even larger grant this year!

Coca-Cola is holding an online contest to vote for 'America's Favorite Park.' We already know that FLFO is great... but let's show that to the rest of the country just how awesome this park is! The park with the most votes will win a \$100,000 grant, 2nd place will win \$50,000, and 3rd place will win \$25,000. That money could go along ways towards some of the projects and things we have been wanting/needng at FLFO! So..... let's try to win this thing!

Voting is easy, and we can vote as many times as we want. You can vote 2 ways:

1. Go to www.livepositively.com/parks. Click on 'vote' at the top, and type in **Florissant Fossil Beds**. Once you've searched for FLFO, click on the little teardrop on the map and then on 'vote for this park' to cast your vote. You can do this as many times as you want to throughout the day.
2. If you have a smart phone, you can each cast up to 2800 votes per day (in increments of 100) by using the FourSquare app. If you don't already have this app, download it from <https://foursquare.com/download>. Set up your account, then visit www.livepositively.com/parks from a computer and click on the foursquare checkin link in the middle of the page to register your foursquare account with the website. After you've done this, you can check in to FLFO on the foursquare app from your phone, and cast 100 votes each time you do! You can check in every 15 minutes, up to 3 times an hour and 28 times a day.

Unfortunately, because foursquare is a social media site, several check in locations exist for FLFO. I've sent an email to the contest managers to have this corrected, but until it is we will have to be careful to check into the same location that is listed on the contest site. To do this, you simply have to search for "Florissant Fossil Beds National Monument Visitor Center" on foursquare. If you're unsure if you have the right one, ask me and I'll help you figure it out.

We will have to really put our hearts into this, but the money we could win would greatly benefit our little park. Voting lasts through July 15 of this year... so share the contest with your friends and encourage them to vote as well. Forward this email to any of your

Lectures and special exhibits for the 2012 Pikes Peak Gem & Mineral Show

The theme this year is "**how to**", how to find specimens and "**how to**" be involved in and part of science.

Kevin Witte will give a program on how to recognize the pegmatite rock structure in search of smoky quartz and amazonite so prevalent in this area.

Jerry Suchan will give a program on area geology.

Steve Miller will talk about how you can participate in Science! Steve is a project leader with the Western Interior Paleontological Society. The past 6 years he has been leading field trips in the Comanche National Grasslands in conjunction with a Fossil mapping project with the US Forest Service. This project is staffed with volunteers from the Western Interior Paleontological Society who collect and document fossils and measure the thickness of different sediment strata in the grasslands. This is in an area where there have been many episodes of ocean regression and transgression resulting in fossil records of various extinct life forms in shallow waters. The end result will be a stratigraphic map of the studied areas and documented fossil finds that can be related to locations in surrounding states that have already been studied.

Dr. James W. (Whitey) Hagadorn the curator of geology at the Denver Museum of Nature and Science will be providing a special turquoise exhibit to be on display at the show. The exhibit will be from the raw materials to finished product with sterling silver.

Cont. from previous column

friends who might be able to help us out, and any park people who I didn't include in this e-mail.

Thanks guys! Let the mouse roar....

Michelle Stewart
Park Ranger
Florissant Fossil Beds National Monument
PO Box 185 / 15807 Teller County Road 1
Florissant, CO 80816
(719) 748-3253

"The joy of living is his who has the heart to demand it." —Theodore Roosevelt



Our Staff...

Sharon Holte & Ellie Rosenberg—
Co-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 Board Meeting** - first Thursday of 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: preferred
SharonRocksCo@gmail.com

Mail to:
Pick & Pack Editors

Classifieds

CSMS

T-Shirts, Badges, and Pins

Are available for sale.

See Store Keeper, Ann Proctor.

Hurry! Hurry!! Hurry!!

Have You Picked Up Your

Membership Award Pin(s)?

If you celebrated a CSMS anniversary in 2007, 2008, 2009, or 2010, your year pin award is available from

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Krystals@webtv.net

The Colorado Springs Mineralogical Society

Pike's Peak Gem & Mineral Show

June 22th, 23th and 24th, 2012

Western Museum of Mining & Industry, Colorado Springs, CO.

Request for NON-COMPETITIVE Display Space

Name:

Society:

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Address:

--

Phone:

Email:

--	--

City:

State:

Zip:

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Exhibitors are urged to bring their own cases. A limited number of club cases are available upon request. Exhibitors using club cases will need to furnish any risers, linings, padlock or accessories as needed. EACH CASE WILL BE **Describe Display or Displays:**

--

	I will bring my own display	Your case length	#of cases
	I will need a case*	Case size desired	#of cases

* CSMS cases are approximately 36" by 24" outside measurements. A few 4-foot cases are generally available. There is a hasp on the case that accepts an exhibitor-supplied padlock. Setup is from 7:30 AM to 9 AM on Friday. Tear down 3 PM to 5 PM on Sunday.

Signature of Non-Competitive Exhibitor: _____

With the signing of this request, email submission of this document or showing up with an exhibit, it is mutually agreed that the Colorado Springs Mineralogical Society and the Western Museum of Mining & Industry shall not be liable to any exhibitor for damage, loss or destruction of any exhibit or injury to his person for any cause and all claims for injury are expressly waived by the exhibitor.

Please return by mail or email by:

RETURN TO: Bob Landgraf

June 15th to reserve a case and exhibit space.

304 Palmer Trail

After June 15th exhibitors are still welcome

Manitou Springs, CO 80829

based upon availability of cases and space.

719-685-1364

rmlwp74@aol.com

The Colorado Springs Mineralogical Society Case.

All measurements are inside measurements. However, since all cases are handmade there may be some slight variations in the cases. Be sure to bring any necessary tools required to make adjustments to your liners.

Bottom is 35 in wide by 23 in deep

Back is 35 in wide by 21 1/2 in deep

Side bottom is 23 in deep by 21 1/2 in high by 19 in deep at the top

Unfortunately, the pictures Bob Landgraf included will not copy and paste

If you have any questions, please feel free to call Bob Landgraf at **719-685-1364**



PICK&PACK
P.O. Box 2
COLORADO SPRINGS, CO 80901-0002

Postage Here

Time Value
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Delay



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 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 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.