

ON THE ROAD TO: WICHITA & THE RMFMS

BY DR. MIKE NELSON, CSMS

I was always looking ahead. I used to do all kinds of things for entertainment. When I was young, we had no radio, no TV. We were 30 miles from the public library, out in the sticks in Western Kansas, and so I'd do arithmetic exercises. **Clyde Tombaugh, discoverer of Pluto.**

In April, I was returning from an interesting trip to the Rocky Mountain Federation meeting in Wichita, KS, hosted by the Wichita Gem and Mineral Society. While driving half-way across my home state I was constantly looking at the rocks and land forms, and made several stops to better examine outcrops. The open spaces (and cruise control) also allowed me to exercise my brain and the thoughts begin to flow into my notebook (only compiled at rest stops)! One thought was to give readers of the Pick & Pack some additional information about the physiography, land forms, and general surficial geology of our neighbor to the east.

CSMS members traveling to Wichita from Colorado Springs most likely drove I-70 east from Limon, CO, to Salina, KS, and then turned south on I-135. The I-70 drive often gives visitors the impression that Kansas is "flat"! Actually the state has a varied and quite diverse topography with numerous exposures of interesting and fossiliferous rock formations. The "flat" impression mostly comes from travelers driving I-70 east across the High Plains Physiographic Province (Fig. 1) to Hays, although the road actually loses/ gains about 2000 feet in elevation (~2000 feet to ~4000 feet) during this traverse. The road was plotted and constructed on the interfluves, those areas between the east flowing streams; therefore, it is like driving on a plank up/ down a slope. Traveling north/south through the same area one would notice many changes in elevation crossing the major streams and their tributaries and then back upon the interfluves.

The High Plains are underlain by the Miocene-Pliocene Ogallala Formation and outcrops are numerous; however, along I-70 much of the bedrock is covered by a wind-blown clay called "loess." The Ogallala is composed of sand and gravel eroded off the rising mountains in Colorado, and elsewhere (this is a broad uplift of the Rocky Mountains termed epeirogenic movement), and transported eastward by numerous streams. The High Plains may be best known for its subsurface ground water deposits termed the Ogallala Aquifer, the water source for hundreds of center pivot irrigation pumps. The surface outcrops also have produced a tremendous array of vertebrate fossils that tell the story of a warm moist climate with the lands supporting a well-vegetated grassland savanna. Today the High Plains are arid, short grasslands.

> The north-central part of the state, east of the High Plains, is known as the Smoky Hills (Fig. 1) and

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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 miner-alogy, 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 Federation of Gem & Mineral Societies (CFGMS)

Colorado Springs Mineralogical Society Founded in 1936 Lazard Cahn

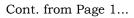
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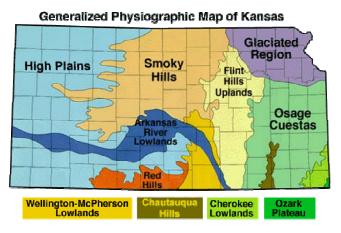


Fig. 1. Physiographic map of Kansas. Courtesy of Kansas Geological Survey

exposures of Cretaceous rocks dominate the landscape. Generally speaking these rocks are quite similar to those cropping out along the Front Range here in Colorado. The easternmost hills are represented by outcrops of the Dakota Formation and underlying Kiowa Formation. The many beds of resistant sandstone form prominent escarpments along the eastern



Fig. 2. Picnic shelter constructed on the summit of Coronado Heights, an escarpment of Dakota Sandstone along the eastern front of the High Plains. Photo courtesy of Kansas Geological Survey.

front such as Coronado Heights near Lindsborg (Fig. 2). In addition, the formations are known for their large cannonball concretions (at Rock City near Minneapolis) and mushroom rocks (at Mushroom Rocks State Park near Kanopolis).

The Kiowa and Dakota are mixed marine and/or streams/beaches/ deltas/floodplains and represent the initial incursion of the Western Interior Seaway (WIS). West of the Dakota/Kiowa outcrops are the Greenhorn (Limestone) Hills with their hundreds of miles of stone fence posts (Fig. 3).

Finally, the western Smoky Hills are held up by



Fig. 3. Stone fence posts quarried from the "fencepost limestone member" of the Greenhorn Limestone. Early settlers in Kansas noted a shortage of trees suitable for fence posts so used available material--stone. Photo courtesy of Kansas Geological Survey.

the Fort Hays Limestone Member of the Niobrara Formation. At the western edge of the Smoky Hills the Cretaceous outcrops actually extend like fingers into the High Plains along the major streams of the area and the richly fossiliferous Smoky Hills Chalk Member of the Niobrara Formation crops out (Figs. 1, 4).

Fig. 4. Outcrops of the Smoky Hill Chalk Member of the



Niobrara Formation at Wildcat Canyon, western Kansas. Photo courtesy Kansas Geological Survey.

Near Salina I-135 connects with I-70 (continuing on the Kansas City) and heads south toward Wichita. Most of this trip is in an area called the Wellington-McPherson Lowlands and the topography is very subdued (Fig. 1). The Lowlands are composed of sand and gravel mostly derived from erosion of the Ogallala Formation to the north and west and deposited by late Pliocene and Pleistocene streams (Ancestral Smoky Hill River) flowing into the Arkansas River (which flows through Wichita). The sand and gravel were deposited on

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top of late Permian rocks, units of significance since they contain very thick beds of salt (halite). My fifth grade school trip was to the salt mines at Hutchinson where we wandered around underground without hardhats picking up pieces of halite. In today's world a fifth grader would not even get close to a mine let alone be taken down a steelcage elevator. This little excursion by my class of 15 students "in the sticks of Kansas" (see quote by Tombaugh) certainly furthered my interest in collecting rocks and minerals.

So, that is probably the quickest way to reach Wichita—via Interstates 70 and 135. Once in the city many visitors drive on a major thoroughfare called 'Meridian Avenue.' Most travelers do not realize that the legal land descriptions in Kansas, Nebraska, Colorado, parts of South Dakota and Wyoming are based on the Sixth Principle Meridian--Meridian Avenue.

I chose another route traveling to Wichita as I wanted to travel off- course and explore long forgotten territory and so traveled to Wichita via highways U.S. 50 and 54 (from La Junta, CO), essentially following the Arkansas River, and parts of the Santa Fe Trail, from Pueblo to Dodge City, Kansas. In Kansas, this area known as the Arkansas River Lowlands (Fig. 1), traverses through, and splits, the High Plains, and consists of sand and gravel deposited by the River during the late Tertiary and Quaternary. In examining the river pebbles one can often identify almost specific source rocks in Colorado. For example, "Kansas Diamonds" are rounded pebbles of crystal quartz with a source in Colorado. At the Wichita show I observed a beautiful 15 caret faceted "Kansas Diamond". One other item of interest is that in Kansas the river is pronounced Ark-Kan-sas rather than Ark-kan-saw! Immediately after entering Kansas near the town of Coolidge on U.S. 50 I took a side trip south to observe the "Coolidge Sink", a collapse feature first noticed in 1929 when it appeared very suddenly in December of that year. Actually, Kansas has numerous natural sinkholes, especially in the western part of the State. I once had a graduate student who tried to map and explain those found in parts of southwestern Kansas. He found that many features line up along the extensive Bear Creek and Crooked Creek fault systems. Water is able to percolate down along the faults and reach soluble gypsum and salt beds in the subsurface and allow collapse of the overlying beds. Our 6th grade class

once took a fishing trip to Lake Inman, the largest natural lake in Kansas and one developed in a sinkhole.



Fig. 5. Red Hills in southern Kansas. These redbeds are late Permian in age.

I also detoured south of the Arkansas River Lowlands to the area bordering Oklahoma termed the Red Hills (Fig. 1). Most visitors to the state would not recognize this landscape as being part of "flat" Kansas. Late Permian red shales, siltstones and sandstones are eroded into a variety of tables, buttes and mesas often capped with beds of gypsum and/or dolomite (Fig. 5). The area also has numerous sinkholes as subsurface salt (halite) and gypsum have dissolved leaving a void and then collapsing. These rocks in the Red Hills represent the "drying up" of the vast, latest Paleozoic, restricted circulation sea.

If one is not going to Wichita and continues eastward at Salina, the landscape begins to change as the traveler enters the Flint Hills Physiographic Province (Fig. 1), a major range of hills extending north-south through Kansas and south into Oklahoma (Osage Hills). The underlying rocks are of Permian age and consist of numerous beds of alternating marine limestones and shales. The limestones contain uncountable nodules and beds of flint or chert. As rainwater percolates through the surface vegetation, a weak acid is formed and this in turn begins to dissolve the limestone. Since the flint/chert (a form of microcrystalline quartz) is rather insoluble the residue left behind is a cherty soil or cherty gravel and thus hinders erosion; hence, the rugged topography prevails. The hills have not been broken by the plow and contain the largest tall grass prairie in the United States.

To be continued next month...



Summer 2010 Show

Show Date: August 20-22, 2010

Location: US Hwy 24, next to Post Office in Lake George, Colorado, 35 miles west of Colorado Springs.

Times: 8 AM to 5 PM each day.

Outdoor Show, 40 dealers, free parking, food available for purchase. There is a Tractor pull contest on other side of the highway same day for additional entertainment.

Dealer Chair: Becky Blair 719-748-3030, and blairra@hotmail.com

Show Chairman: John Rakowski 719-748-3861, and rakgeologist@yahoo.com

The show will consist of forty dealers featuring minerals, fossils, jewelry, lapidary, and <u>outstanding</u> local specimens of amazonite, smoky quartz, topaz and more !

Admission is F-R-E-E

& the Parking is F-R-E-E too!

LGGM Club member & show dealer Richard Fretterd displays a colorful specimen (Dan Alfrey photo)



Various show items will include (but are not limited to) agate clocks, tumbled stone, petrified wood, carvings, lapidary equipment and supplies, crystals, meteorites, tektites, fulgurites, cabs, beads, jade, opal, fossils and much, MUCH more!

Here are pictures by Ingrid Hamilton from last year's show!



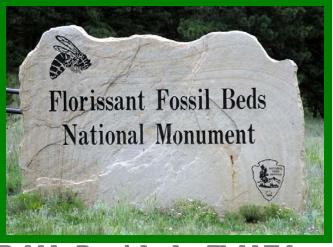












Pebble Pup / Junior Field Trip

A special field trip for Pebble Pups and Juniors is scheduled for Saturday, June 19, 2010 at 10:00 a.m. There is a \$3 fee to enter the monument, plus \$10 to collect fossils at the quarry.

Meet at the Visitor Center at 10 a.m. From 10:15 a.m. to 11 a.m. view monument's film, look at displays. From 11 a.m. to 12:15 p.m. explore the trail to Big Stump. From 12:15 p.m. to 1:00 p.m. picnic lunch—bring your lunch & water. From 1:15 p.m. to 2:15 p.m., visit Florissant Fossil Quarry to collect fossils—you get to keep what you find! From 2:15 p.m. to 2:30 p.m., review of the day's finds, end of the field trip.

Note: dress for a mountain environment, bring sunscreen, sunglasses, hat, good shoes, poncho, and anything else you need for an adventure in the mountains. Bring a lunch and water. This field trip is for Pebble Pups and Juniors (parents encouraged to attend) that belong to the Colorado Springs Mineralogical Society, the Lake George Gem and Mineral Club, and the Western Interior Paleontological Society. You <u>must</u> register for this trip. Have your parents send your name, grade, club you belong to, and if one or two parents (entrance fees apply) are coming to: steven.veatch@gmail.com

THE CSMS YOUTH PROGRAM

BY STEVEN WADE VEATCH

The Colorado Springs Mineralogical Society (CSMS) participates in a youth program that creates future rockhounds of America. The CSMS does this by sponsoring a Pebble Pup and a separate Junior program. These youth programs are part of the American Federation of Mineralogical Societies (AFMS) "Future Rockhounds of America" program. Both CSMS youth programs meet before the regular club meeting on the third Thursday of the month, the Juniors meet from 5:30 to 6:15 p.m., and the Pebble Pups meet from 6:30 to 7:15 p.m. The Junior program has 15 regular attendees, and the Pebble Pup group has 12 attendees.



Both programs are chaired by Steven Veatch, the adult leader for the youth program. Veatch is supported by the following adult youth leaders: Roger Pittman, Lorrie Hutchinson, and Frank Rosenberg. Three

years ago the CSMS youth programs became part of the AFMS merit badge program of guided activities that provides youth leaders with 53 individual activities in 9 areas: Rocks and Minerals; Earth Resources; Fossils; Lapidary Arts; Collecting; Showmanship; Communication; Field Trips; and Leadership. In 2008, 6 new areas were added with 32 more activities on: Earth Processes; Earth in Space; Gold Panning and Prospecting; Gemstone

Lore and Legend; Stone Age Tools and Art; and Rocking on the Computer. Kids can now earn badges in



each of 15 overall areas. Those earning a minimum of 6 of the 15 badges earn a "Rockhound" badge as a mark of accomplishment and distinction.

Today the program consists of an FRA Membership patch, 15 badges, and a 155-page guidebook that describes and outlines requirements for each of the 15 badges. The kids are required to complete only 3 activities to earn any particular badge. Checklists in the guidebook make it easy for Veatch and his crew to sign off on activities as junior members complete them.

A typical CSMS class session will investigate a geologic process and then focus on a rock or mineral. At other times classes will devote an entire



session to a lab experience such as cutting geodes in two with a diamond saw or working with microscopes. The emphasis during each session is always learning something new that is practical for the young hobbyist. Members of the CSMS donate rock and mineral specimens for the Pebble Pups and Junior to study and build their collections. The CSMS youth program has a complete schedule of field trips for each year. These trips range from visiting regional museums in the winter to collection sites in the spring and summer. Planning is now underway to combine the CSMS youth field trips with the Lake George Gem and Mineral Club's youth programs.

The CSMS youth program has four virtual Pebble Pups: one in Oklahoma, one in Washington, and two in Denver. These pups follow the same lessons via the internet and do the same work to earn a merit badge. A blog is being developed as a gateway for the CSMS distance students to gain more enhanced learning adventures. Some of the Internet students have shipped boxes with specimens from their location to the Colorado Springs group—always with enough specimens for each student in Colorado Springs to keep.

The CSMS distance program exists to serve kids where there are no Pebble Pup programs. In other cases, some of the distance students want to take a

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Youth Program, continued from Page 5

deeper dive into the world of rocks, minerals, and fossils, and the CSMS distance program is the best way for them do it. Last year one of the distance learning pups wrote an article for the CSMS newsletter, which won a first place award at the 2010 Rocky Mountain Federation Show held in Wichita. An internet Junior member wrote an article for the



newsletter that is now being published by *Deposits*, an international mineral and fossil magazine. This is an excellent accomplishment for a thirteenyear old (Steve Veatch didn't get his first magazine article published until

he was 52). All of the youth members are encouraged to research, write, and participate in science fairs. The CSMS distance program provides the encouragement and the means to accomplish these important goals. The CSMS distance program may be the only one of its kind in the country.

Steven Veatch, who started the CSMS youth program in its present form, was once a Pebble Pup many decades ago. He first joined the CSMS as a Pebble Pup in 1964 when he was in grade school.

At that time the CSMS met at the IBEW building in downtown Colorado Springs. Because the Pebble Pup program played such an important role in his life, Veatch was determined to revamp the CSMS program and con-



nect with the AFMS Future Rockhounds of America program. Veatch has been involved with the program for over 10 years, and worked with several members of the Lake George Gem and Mineral Club, to start a second youth program in that club. There are now 3 AFMS Future Rockhounds of America participating youth programs in Colorado:

Colorado Springs Mineralogical Society Pebble Pups

Lake George Gem and Mineral Club Pebble Pups

The Junior Geologists of the Flatirons Mineral Club

CHEYENNE CLUB'S SHOW By Bob King

May 15th & 16th was our mineral club's mineral show. Over the past 5 years our show has steadily grown, but this year's show was "off the chart." Last year we cleared about \$2,300 and THIS year we cleared about \$4,800. WOW ! Our attendance went over 1,000 for the first time. Chevenne has a population of 53,000 people and there aren't many nearby towns. Our silent auction set a record by clearing \$1,500. People had a fun time. It was a great show and it will be hard to top next year. Each year we make about 200 grab bags (Small cloth bags containing 10 different rock, minerals and fossils which we sell for \$1) and last year we had 7 left over. This year we sold all 200 the FIRST day of a 2-day show, and we gave away (275) 22" x 43" dinosaur posters.

This was our 2nd year for our second graders' dinosaur coloring contest. We sent out 1,000 (That's one for each second grader in Cheyenne) entry forms and only got 15 entries. They had to color a preprinted dinosaur and add in a background. I don't know if we will run that contest next year.

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)

Starting June 14, and Every Monday & Wednesday thereafter in June: Farmers' Market featuring Colorado Grown Fresh Produce—Located in front of the Red Farmhouse

Second Annual Rock Fair at WMMI

Date: June 26, 2010 9:00 a.m.-4:00 p.m. & June 27, 2010 9:00 a.m.-3:00 p.m. Lots of fun for the whole family: gem, jewelry, mineral & fossil vendors; educational talks; demonstrations of gold-panning; rock identification; a special kid's area; food vendors; the exhibits of the Museum, CSMS display cases; and WMMI equipment operation: Saturday, the Yellow Jacket Stamp Mill will run at 10:00 a.m. & 1:00 p.m.

Heritage Lecture—Oil Sands

Date: July 15, 2010 @ 7 p.m. Free to the Public. Call for Reservations.

Burro Birthday Bluegrass Bash

Date: August 7, 2010 10 a.m. to 5 p.m. Oro & Nugget's Bluegrass Birthday Celebration

PRESIDENT'S CORNER

by Ron Yamiolkoski, CSMS

Shhh, I think Spring has arrived. I understand people are actually getting out and doing some digging and hunting. The wind has been a bit rough lately, but at least when it stops there is no shoveling involved. When you look at the website, you will see that it is Field Trip Season and we are



starting to post them there for those of you that enjoy getting out with other members. It looks like that earlier field trip to Holcim Cement Quarry will be rescheduled, so those of you who signed up earlier may still get to go this year. Also, please contact me if you want to

lead a field trip. If you have not done it before, I can walk you through the process. Other Club members will appreciate your doing it.

The Rock Fair at WMMI is this month on June 26th and 27th. We have our speakers ready to go, cases are being prepared and some new vendors will be joining us this year. We will need volunteers to make the Fair a success and I will have signup sheets ready at the June General Assembly meeting for all of those who want to help out. This year as part of the festivities, we will have a Pot Luck on Saturday night (6:00 PM) for all of the vendors, exhibitors, WMMI staff and volunteers and all of the CSMS folks who volunteer to make the Rock Fair a success. So if you plan to participate, think of some tasty item that you can contribute to the fare. No theme – just good food. Because we have been unable to find a venue for our Annual Show, we will also be calling the Rock Fair at WMMI the 47th Annual Pikes Peak Gem & Mineral Show. Hopefully in 2011, we will be able to find a venue for our annual indoor show and do both an indoor and outdoor show.

Since we will not be having our normal annual show, we will have the **Silent Auction** as part of the Rock Fair. This has been a standard item for our Annual Show and is the primary way that we raise money for our Scholarship Fund. This, of course, means that we will need some donations from our members to have the material needed for the Silent Auction. I know that this is close to recent Silent Auction, but it's very important for our Scholarship Fund, and we need to do it at the Rock Fair or not at all. Remember the next Rock Fair Planning Meeting is at 6:30 PM on June 17th in the lobby of the Senior Center.

Our May General Assembly meeting dealt with the issue of raising the dues. Although this issue was warmly debated with strong feelings on both sides of the issue, in the end the vote resulted in passage of the dues increase. The changes go into effect for 2011 dues.

One last item, on August 21st we will be having our Annual Picnic. Our Social Committee Chair, Maria Weisser, will be coming up with this year's theme and be letting you all know. Please mark your calendars. As part of this event we always have a bit of rock swapping and tail gating and this year will be the same. Good food and fun – see you there.

Take care,

Yam

CSMS UTAH FIELD TRIP

If enough interest is generated I am willing to facilitate a CSMS-sponsored field trip to western Utah in June. The schedule is as follows:

Saturday 19 June: individual participants arrive Salt Lake City.

Sunday 20 June: group travels west, collect Sunstones, examine dumps near Eureka (if possible), perhaps examine other localities, arrive Delta, UT.

Monday 21 June: travel to trilobite beds and collect, possibly at a pay site; return to Delta. Also chance to collect Pleistocene Lake Bonneville snails.

Tuesday 22 June: travel to Thomas Range and collect at Topaz Mtn; return to Delta.

Wednesday 23 June: individuals travel back to Colorado Springs or perhaps back to trilobite beds (individual's choice).

Another possibility would be to travel from Delta to Vernal on Wednesday and look for agates late Wednesday afternoon and examine the gilsonite mines in the Uinta Basin (overnight Vernal or your choice). Travel back to Colorado Springs on Thursday.

I am willing to supply information about motels and camping facilities and to try and find other collecting localities; however, I am unable to facilitate travel arrangements to and from CO SPS. I will supply names and emails of participants in case someone is interested in car pooling.

If you are interested please contact me (csrockguy@yahoo.com) ASAP via email but no later than 1 June.

Mike Nelson

April 2010 Silent Auction









































June 2010

THINGS TO DO FROM CSMS MEMBER PETE MODRESKI

Sat., June 19, Annual Mineral & Fossil Home Sale, at "GEOdyssey". All specimens are a minimum of 10% off, with bigger discounts for volume purchases. Drinks and snacks provided. 15339 West Ellsworth Drive, Golden; go south on Indiana St. from 6th Ave., into Mesa View Estates; turn right at McIntyre Circle, right at Ellsworth Drive. We're about midway down the street on the left. 9:00 a.m. to 4:00 p.m.; 303-279-5504.

Fri-Sat., June 25-26, some may be interested in a "South Park Symposium" on history and natural resources of South Park, to be held at Fairplay RE-2 School these two days. Talks will include local history and historic preservation, "Sheepherding", "South Park Salt Works 1862-1883", "Miner's Partner--the Burro", "Evolution of Colorado water use and laws", & an afternoon field trip to see Ice Age landforms in South Park. One can register for a half day, full day, or both days; complete 2-day registration is just \$15. Email Pete (pmodreski@usgs.gov) & he will forward an e-copy of the program & registration flier.

Sat.-Sun., June 26-27, "Rock Fair" at the Western Museum of Mining & Industry, Colorado Springs, co-sponsored by the CSMS; a mini-mineral show with related activities, in tents outside the Museum. For more info: <u>wmmi.org</u>.

Aug. 12-15, "Contin-Tail" mineral show and swap, Rodeo Grounds, Buena Vista, CO.

Aug 20-22, Lake George Gem & Mineral Show, Lake George, CO. For more info: www.lggmclub.org.

Sep. 10-12, Creede, Colorado, Mineral Field Symposium, to be held in Creede, CO, sponsored by the Colorado Chapter, Friends of Mineralogy, & the Colorado School of Mines Geology Museum; a twoday symposium with lectures & field trips. More info will be available soon; contact Lou Conti, <u>dlconti@aol.com</u>

Sep. 17-18, Denver Gem and Mineral Show, Denver Merchandise Mart. For more info

see <u>http://www.denvermineralshow.com/</u> Combined with Colorado Fossil Expo. Dealers, many museum and club exhibits; admission charge; free parking. The theme of the 2010 show will be "The Creede Mining District". **Sep 15-19, Colorado Mineral and Fossil Show,** Holiday Inn - Denver Central, 4849 Bannock St. Free parking and admission, many mineral dealers; see <u>http://www.mzexpos.com/colorado_fall.htm</u>

FROM THE LIBRARY by Frank Rosenberg, 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.

Book report: By Kevin Witte, CSMS:

<u>Colorado Gem Trails and Minerals</u> by Richard Pearl 1972. I'm sure some of us have started out our rock-hounding exploits by reading a book on Colorado rock-hounding. I found the book by Richard Pearl to be very similar to a later guide written by James Mitchell titled <u>Gem Trails of Colorado</u> written in 1997. Pearl starts his book with a history of Colorado prospectors to include Endicott, Hart, Over, and Cross. Many of these men led the way in the discovery of various mineral and gem finds in Colorado. A lot of interesting historical information is included in the book. Did you know that amazonite was first called amazonstone, or that CSMS used to meet at the First Christian Church on North Cascade and Platte avenues?

Pearl divides his book into14 travel segments. The segments include sites along 14 roadways throughout various parts of Colorado. Most of the sites were familiar, though not all are open to rockhounds now, such as Crystal Peak near Florissant in Teller County. I found Pearl's discussion of the Colorado Springs segment to be the most interesting. Pearl discusses rock-hounding along Gold Camp Rd. when it was open for auto travel, and references many interesting sites for those willing to hike up into the Front Range. I found one reference to a lost bastnasite and fluocerite collecting area interesting and may have to explore that area this summer. Pearl's book is very comprehensive, even though some of the sites he describes may now be inaccessible. I picked up on a few collecting leads which I will check out this summer. Maybe you can find a 46 lb. smoky quartz crystal near St. Peter's Dome as described by Pearl. Happy Rockhounding!

ASK A GEOLOGIST BY MIKE NELSON, CSMS



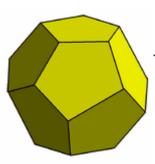
Jason writes: *Mr. Rockguy I am a Cub Scout in Utah and learning skills for the wild. Can you really start a fire with fools gold?* Well Jason, I can't say that I have completed that little task but it now ranks high in my top ten list for "Things I Want to Try"!

Fool's Gold is really the mineral pyrite, or sometimes it is called iron pyrite, and is an iron disulfide with a chemical formula FeS_2 (about 47% iron and 53% sulfur). It often appears in nature as cubes with striations (fine parallel lines) on the



Fig. 1. Mass of intergrown pyrite cubes displaying striations on crystal faces. Photo courtesy of Wikipedia.com. cube faces (Fig. 1). Collectors also may observe octahedral or pyritohedron crystals (Fig. 2). The brass yellow color is quite distinctive and pyrite has a hardness of about 6 to 6.5. The luster is metallic and the specific gravity is around 5. The mineral is also brittle and breaks quite easily into

Fig. 2. A sketch of a pyritohedron crystal. The most com-



nearon crystal. The most common form of a pyrite crystal is a cube, as seen above. However, some pyrite crystals take on this form. Photo courtesy of Wikipedia.com.

small pieces or powder. When rubbed on a streak plate the mineral smells like sulfur and leaves an almost black streak. Unlike

gold, pyrite is not malleable (flexible and pliable)

and hence the story that miners gave a shiny specimen the "bite test" to determine if it was gold! The name pyrite comes from the Greek and means fire. Perhaps that is a clue to answering your question.

Pyrite is perhaps the most common sulfide mineral and is found in all groups of rocks from sedimentary to igneous to metamorphic. The mineral marcasite has the same chemical formula as pyrite but whereas pyrite is in the isometric crystal system, marcasite is orthorhombic (marcasite is called a polymorph of pyrite). Sometimes the two are difficult to distinguish from each other; however, marcasite is "lighter in weight" with a density of about 4.8 and seems more brittle. Interestingly, marcasite jewelry seen at the trade shows is actually made of pyrite!

Pyrite is a very collectable mineral and some of the specimens are quite spectacular (Fig. 1) and sell for many dollars. On the other hand, it is possible to purchase small crystals for a very reasonable price and is a great way to get youngsters hooked on collecting minerals. In Colorado one may collect small crystals "by the dozen" at some of the mine dumps near Leadville. Jason, if you live close to Salt Lake City, look for pyrite crystals in the old mine dumps near Alta.

One of the more interesting occurrences of pyrite and/or marcasite is when the mineral becomes the replacing mineral in the process of fossilization. This type of fossilization, while not rare, is relatively uncommon. The fossilization process takes place in stagnant solutions or waters with poor circulation and where large amounts of hydrogen sulfide is created, often by decaying animal or plant matter. The sulfide then combines with iron in the sediment to form FeS₂ and begins to replace the original shell material. Some of the more spectacular pyritized fossils are the Devonian brachiopods (*Mucrospirifer*) from the Midwest (Fig. 3).



Fig. 3 The brachiopod Mucrospirifer where the original material is replaced by pyrite/marcasite. Photo courtesy of Humboldt State University.

To be continued next month...

WOODLAND PARK GEM, MINERAL & JEWELRY SHOW

Kim and Bodie Packham (of the Rock Gypsies) present the Woodland Park Gem, Mineral & Jewelry Show to be held August 19- 20 - 21 - 22, 2010, at the Woodland Park Saddle Club.

The Woodland Park Saddle Club is located on Hwy. 24, just west of the Wal-Mart, in Woodland Park, CO.

There will be Rocks– Gems– Minerals– Crystals– Jewelry– Rough Material– Cut Stones– Colorado Specimens– Free Gold Panning– Spheres– Fountains– Gifts– Lapidary– Faceting– Prospecting Equipment, and more!

Best of all, Admission is Free, as is the Parking!

There will be food available.

Contact Kim or Bodie at 719.360.9665, or at

runninboar@hotmail.com.

CREEDE MINERAL SYMPOSIUM 2010

The Creede Mineral Symposium will be held September 10-12, 2010, at the Creede Underground Mining Museum Community Center.

The tentative registration fee is \$50/person, with small additional fees for optional visits to the Creede Underground Museum. Registration DOES NOT include lodging, and is limited to the first 75 individuals, due to space limitations.

There will be an optional banquet (estimated cost is \$26/person) at 7 p.m. on Saturday, September 11, 2010.

There will be talks on Creede area history, economic geology, mineralogy, current events, and artifacts from those who have been involved in the Creede mining district over the years. Displays of classic mineral specimens found in the Creede district and the local area, as well as a special micromount display by the Rocky Mountain Micromineral Association, will be available for viewing. There will be dealers offering materials for sale to those wishing to bring home some of the local treasures.

For more information or to remit checks for registration and/or the banquet, contact:

Lou Conti 303.797.3205 dlconti@aol.com

6987 S Hill St.

Littleton CO 80120

General Assembly Minutes, Cont. from Page 15

This is the fund that supports our general membership and includes such costs as RMFMS insurance, space rent and the Pick & Pack. All of these costs have gone up dramatically in the past few years and as a result our dues structure is no longer in line with the costs we are incurring. Therefore, the Board is bringing the following motion to change our By-Laws to the General Assembly for their consideration: Dave made the motion: It is moved that effective 2011 membership dues for CSMS will increase to: Juniors-\$10, Regular Individual)-\$30, Family-\$40, and Corporate-\$100. It was seconded. This motion has been printed in the Pick & Pack in accordance with the By-Laws.

Discussion: There is concern that the regular dues are too high. Others (thought the increase was fine. The expense of mailing/printing the P&P is draining the funds. It was suggested that we decrease the size of the P&P or that folks who want the P&P mailed can pay extra (However, life-time members don't pay for them.). Decreasing size won't fix the problem. Yam feels most of the items included are high quality. Someone wanted to know if we could increase the dues \$5-7 and charge extra for mailing. Another suggested allowing dues paid in parts. Yam restated that there is still a break if people pay before Jan. A call for a vote was made. All in favor: 31, all opposed: 14. Motion carried.

Yam noticed that we don't have a definition of a corporate member. We'll be forming a committee to define a corporate member and the benefits.

Vice Presidents Report (Dave Olsen): The speakers for tonight will not be here; one's going to Europe and the other needs to study for finals. We're still looking for speakers. Dave was late because he was saving a greathorned owlet.

Secretary's Report: Jennifer Beisel-nothing

Members-at-Large Report: Sharon Holte & Bob Germano-nothing

Membership Report: Roni Poteat-Dues for 2010 are past due. Please make sure you provide complete updated information on your application form so that our database is accurate. Dues can be paid to Roni Poteat if you want to pay tonight. Roni also has copies of the Application Form so you can do your update. Anyone who did not pay their dues by April 30th will be dropped from the roles and will no longer receive the benefits of membership (including the Pick & Pack).

Annual Banquet Discussion: Ann Proctor–Ann suggested we have the banquet here and wanted to get an idea of whether folks wanted a buffet or plated meal. Ann mentioned that future banquets at a hotel might cost more.

There's a case in Old Colorado City that's filled with fossils. Might want to check it out.

Meeting adjourned at 8:40. Close Meeting.

CSMS FIELD TRIPS

Field Trips for 2010 have already been set. As usual, check the CSMS website (<u>www.csms.us</u>) for the latest list of Field Trips. Also, if you have an idea about a field trip or would like to lead a field trip, contact Yam our Field Trip Chair at <u>ron.yamiolkoski@aecom.com</u>.

June <u>5</u>: **Peridot Claim,** Yam, ron.yamiolkoski@aecom.com

June 5: Sedalia Copper Mine, Don Bray, dbraylarkspur@att.net—this event may be booked, contact Don before adding it to your calendar!

June 6: Gold Camp Road, Steve Russell,

sprussell@plcmail.net

June 12: Spruce Grove Topaz, John Rakowski, LGGMC, rak873john@centurytel.net

June 19: **Florissant Fossil Beds**, Steven Veatch, for the Pebble Pups & Juniors,

steven.veatch@gmail.com

July 10: April Fools Claim, John Casto, Jcasto@fvs.edu

<u>Aug 21</u>: **Peridot Claim,** Yam, <u>ron.yamiolkoski@aecom.com</u>

EXHIBITING AT THE 2010 ROCK FAIR

This year the 2010 Rock Fair at the Western Museum of Mining and Industry will be a two day event on June 26th and June 27th. Our club has a reputation for having many good collectors and, in particular, many self-collectors. The 2010 Rock Fair is a great opportunity to encourage new people to become interested in our hobby and your participation by entering an exhibit is one of our best advertisements. We have space inside the museum to setup exhibits. The space at this facility is more limited. The earlier that you can let us know that you are interested in exhibiting, the better chance that we will have to make sure that we can provide space for everyone's exhibit. There is no real theme this year, so why not show your favorite specimens or feature your favorite collecting locality.

Bob Landgraf – Exhibits Chairman

PEBBLE PUPS/JUNIORS BREAK

The Pebble Pup and Junior program will follow the academic year and will meet September through December. We have a break in January, and then will go from February to May. Since attendance drops off in the summer, we are making the change effective this month. The month of May was our last regular third Thursday meeting until next September. We will not meet June through August. These meetings will be replaced with our summer field trip season. Our first summer trip will be to the Florissant Fossil Beds National Monument.

THE SUBURBAN ROCKHOUND AND SEEING SAFELY

Last weekend my wife and I headed north to see some friends for dinner. We left a bit early and slipped into Boulder to visit my favorite hardware store. They were having their annual garage sale, so I picked up a few items that I may need. One item that caught my eye last year and was on my list for this year was safety glasses. You may ask why I would go that far for safety glasses. Well, it turns out that I need glasses to read and to see things that are up close—like minerals and fossils—many of us have this problem. With regular safety glasses, I am always putting on and taking off my reading glasses or safety glasses when I am out collecting and using a rock hammer or chisel or pick. The problem is then I can't see close-up, so I take off the safety glasses to put on my reading glasses and then I need to put my safety glasses back on and so it goes. After a while, I get lazy and don't put the safety glasses on and that's not good. It turns out that hardware store that starts with "M" carries "Bifocal Safety Glasses." The top part is a clear lens and at the bottom is the reading lens that I need. They have them as sunglasses as well for you fisherman, but for rockhounds the regular ones are great. They cost a bit more, but what good is a pair of safety glasses if you're not wearing them when you should. Please make sure that you aren't finding yourself not wearing your safety glasses when you should. This suburban rockhound doesn't want to hear about any of his friends having an accident!

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	JUNE 2010 -	- CSMS CALENDAR				
		1	2	3	4	5 9 a.m. Peridot Claim 9 a.m. Salida Garnets
6	7	8 7 p.m. Micro-Mounts	9	7 p.m. Board Meeting	11	12 12-14 Lapidary Group 9 a.m. Spruce Grove Topaz
13	14	15 7 p.m. Fossil Group	16	17 6:30 p.m. Rock Fair 7:30 p.m. General Assembly	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	29	30			

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS Feb—Crystal May—Jewelry Aug—Picnic

Mar—Faceting June—Lapidary Sept—Projects April—Fossil July-Micromounts 00

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		Area Code 719)	
President	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	Lo
VICE PRESIDENT	David Olsen	495-8720	Djnvgo_95@yahoo.com	_
Secretary	Jennifer Beisel	434-2574	jenniferbeisel@comcast.net	Board Me @ 7:00p.
TREASURER	Al Zelenak	598-3515	adzelenak@comcast.net	Olsen: 495
Editors	Teri Stoiber and Ann Proctor	N/A 684-9010	blacklabaccounting@gmail.com annmgmt@msn.com	Crystal Thursday o Senior Cen
Membership Chair	Roni Poteat	390-6065	talknrocks@gmail.com	634-4576 Faceting (
Member-at-Large	Sharon Holte	217-5683	SHolte@csu.org	@ 7:00p,
Member-at-Large	Bob Germano	487-8945	(gliders1@hotmail.com	Berry, 578
Past President	Drew Malin	531-7594	advanceone@comcast.net	Fossil Stu day @ 7:00
Field Trip chair	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	Senior Ce 522-1608
HISTORIAN CHAIR	Brenda Hawley	633-5702	bghsprings@hotmail.com	<u>Jewelry</u> (@ 12:00p
LIBRARIAN	Frank & Ellie Rosenberg	594-0948	emr80918@yahoo.com	Circle, Peyt 2328
Social Committee Chair	Maria Weisser	229-1587	mariaweisser@yahoo.com	<u>Juniors &</u> Thursday
Show Chair	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	Senior Cer
Store Keeper	Ann Proctor	684-9010	annmgmt@msn.com	748-5010 Lapidary
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net	@12:00p,
FACETING GROUP	Paul Berry	578-5466	paulpopsplace@aol.com	Colorado S ley, 638-81
FOSSIL GROUP	Mike Nelson	522-1608	Bill.Arnson@live.com	Micromou
JEWELRY GROUP	Bill Arnson	749-2328	ritaarnson@msn.com	Tuesday @
LAPIDARY GROUP	Jennifer Bailey	638-8169	Notes_test@yahoo.com	Hancock, <i>acc@frii.co</i>
Juniors & Pebble Pups	Steven Veatch	748-5010	Steven.Veatch@gmail.com	2673
MICROMOUNT GROUP	Phil McCollum		acc@frii.com	Project C
PROJECTS GROUP	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com	TBD, Ron "
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com	
lune 2010			ΡΙΓΚ&ΡΔΓΚ	

cations

eeting: 1st Thursday Senior Center, David 5-8720

Study Group: 4th of the month @ 7:00p, nter; Kerry Burroughs:

Group: 4th Thursday Senior Center, Paul 8-5466

udy Group: 3rd Tues-Op every other month, enter, Mike Nelson,

Group: 3rd Saturday o, 15610 Alta Plaza ton, Bill Arnson, 749-

& Pebble Pups: 3rd @ 5:15p & 6:30p, nter, *Steven Veatch,*

Group: 2nd Saturday 6570 Ramrod Road, Springs,, Jennifer Bai-169

unts Group: 2nd @ 7:00p, 1514 North , Phil McCollum, om, Moyra Lyne, 442-

Group: Meeting time "Yam" Yamiolkoski

June 2010

PICK&PACK

MAY 20, 2010 GENERAL ASSEMBLY MINUTES

BY JENNIFER BEISEL, CSMS SECRETARY

At 7:37, Yam called the meeting to order and followed with the salute to the Flag.

Announcement of deceased and a Moment of Silence: None

Approval of March and April, 2010 Minutes as they appeared in Pick & Pack: Motion was made to approve the March minutes and seconded. All were in favor; motion passed. Motion was made to approve the April minutes and seconded. No discussion. All were in favor and motion passed.

Treasurers Report–(Al Zelenak not present) Ann read the report. There is now a notebook with the club financial information for members to check out. Terry asked about current standing for the silent auction. Final numbers depend on selling the rest of the auction items.

Introduction of New Members - none

Introduction of Guests - Jude, Chris & Rich Mott

Chair's Group Introductions:

Crystal Study Group: Kerry Burroughs-4th Thurs. of the month at 7 p.m. at S.C.

Fossil Study Group: Mike Nelson-3rd Tues. of every other month (Jan, Mar, etc.) at 7 p.m. at S.C.; willing to lead a 3-day trip to Utah to collect sunstones, trilobytes, topaz. Email Mike if you're interested. Jack is preparing a case for the rock fair and if anyone wants to contribute, see Jack.

Micromount Group: Phil McCollum (Moyra Lyne)-2nd Tues. of the month at 7 p.m. at S.C. and the 3rd Sat. of each month (except Dec and Jun thru Aug) from 10 a.m. to 4 p.m. at 3609 Windsor Ave. in Colorado Springs, CO;

Faceting Group: Paul Berry-4th Thurs. of the month at 7:00 p.m. at S.C. Classes closed for the summer.

Lapidary Group: Jennifer Bailey-2nd Sat. of the month from Noon until 4 p.m. at 6570 Ramrod Rd., Colorado Springs, CO. Equipment has been moved into Jennifer's garage.

Jewelry Group: Bill Arnson-3rd Sat. of the month from Noon until 4 p.m. at 1560 Alta Plaza Circle, Peyton, CO. Bill is still looking for a volunteer to take over the meetings for the summer. In the meantime, if anyone is interested in one-on-one sessions contact Bill at 719-749-2328.

Pebble Pups/Juniors: Steven Veatch-3rd Tues. of the month at S.C. Juniors meet at 5:15 PM and Pebble Pups meet at 6:30 PM; have a field trip on

19th with Lake George Club. Steve needs samples (about 20). Folks can just bring them to the club meeting.

Librarians: Ellie & Frank Rosenberg–if anyone wants to check out a book from the library, just email the Rosenberg's

Webmaster: Allen Tyson

Rock Fair Chair: Ronald "Yam" Yamiolkoski-The dates have been set for June 26 & 27, 2010. Have about 15 dealers and 7 speakers. Currently, we have not been able to find a location for the Annual Show. Yam wants to include a silent auction at the Rock Fair to support the scholarship fund. Mike Wetoo will be a vendor instead of security. We'll need someone to step up and help out with that. Please see Yam if you're interested. If any groups would like to have some space for demos, please let Yam know and he'll get you some space. All volunteers are welcome to join the potluck on Sat.

Field Trip Chair: Ronald "Yam" Yamiolkoski-We have 8 Field Trips posted on our website as of today. No change. Terry's talking about a trip to Kremlin. Couple of sign-up sheets for Jun 5 trips to St. Peter's Dome & Sedalia Copper Mine. Please sign up. Jean has a place out in Salida and folks can camp out there; please contact her.

President's Report: Yam-Thanks to Teri Stoiber and Ann Proctor as Co-Editors of the Pick & Pack, and in particular Teri for getting out the April and May issues of Pick & Pack since the last meeting. If anyone would like to help out, please contact Teri &/or Ann.

The Annual Show for 2010 is dead. I was unable to find a venue for the Show. Roni Poteat is still trying to see if there is any hope in doing it. For that and personal reasons, I am resigning the Position of 2010 Show Chairman and Roni Poteat, as the previous Co-Chair, will continue as the Chair until she exhausts any hope. We do need a volunteer for Chairman of the 2011 Annual Show if we plan to continue to do the event.

It was suggested at the Board meeting, that unless we have some possibility of doing an Annual Indoor Show by the time of the Rock Fair that we call the Rock Fair in June the "Second Annual Rock Fair at WMMI and the 47th Annual Pikes Peak Gem & Mineral Show." This would continue the string of Annual Shows and allow us to call next year's Show the 48th Annual Pikes Peak Gem &



Mineral Show. Unless anyone wants to make a motion against this idea, we will do this.

The Annual Spring Silent Auction and Bake Sale was a great success. Thanks to the items from the Dale Corbin Estate many Club members walked away with some real bargains. We still have a few items that we are presenting tonight for bidding. Please remember when bidding that the money will go to help support the Pebble Pups/ Juniors Program and other Group needs. Special thanks to Maria Weisser, our Social Committee Chair for providing coffee at the Silent Auction, and of course, thanks for all who helped out.

Since we may not have a separate Annual Show this year, I am asking the General Assembly if they want to include an outdoor Silent Auction at our Rock Fair. The proceeds for this, like at our normal Annual Show would go to our Scholarship Fund. Can I have a motion to that effect?

The Board is trying to balance the budget for CSMS. Due to the way our funds are segregated, we cannot take money from one area of the budget to cover another area. This means that some areas are OK and others are not. The one area that is in the most difficulty is the General Fund.

Cont. on Page 11



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Time Value Do Not Delay June 2010

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. <u>Visitors are always welcome</u>.

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.