

# **Bulletin of the Mineralogical Society of Southern California**

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## **The 865th Meeting of The Mineralogical Society of Southern California**

**Silica Minerals, Particularly Agate**

**By**

**Conrad (Connie) Grundke**

**Friday, June 11, 2010 at 7:30 p.m.**

**Geology Department, E-Building, Room 220**

**Pasadena City College**

**1570 E. Colorado Blvd., Pasadena**

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### **Featuring:**

- May minutes and program brief**
- CFMS/AFMS Show and convention**
- CFMS field trips north in June**
- Mid Year Public Lands Advisory Committee Report**

## **--A recent fossil collecting trip**

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### **June 11 Program**

Our June speaker is Conrad (Connie) Grundke who will speak on the subject of agates. Connie spent most of his working life as an engineer working for IBM. His interest in science has led him into subjects such as geology, paleontology, astronomy and mineralogy.

He is an authority on the art form of Intarsia/ commesso. Originated in Roman times, this art form in which pieces of stone are fitted together to form pictures reached its peak in Florence during the 16th century. Connie has taught at Saddleback College and his lectures, articles, teaching and exhibiting have revived interest in intarsia/commesso.

His lecture will begin with the molecular structure of quartz and other silica minerals and particularly focus on agates. The presentation will help the listener to better understand the relationship between the minerals and different forms in this family and will allow an increased enjoyment and recognition of these materials as they are used in lapidary

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### **Minutes of May Meeting**

By Jo Ann Ritchy

The 863rd Meeting of the Mineralogical Society of Southern California was called to order at 7:30 by Jeff Cappleite.

Bruce Carter, Vice President, introduced Dick Flaharty who gave a talk on Sapphires of Montana. Dick began collecting at age 10 and just celebrated his 90th birthday. He brought a nice display of rough and finished sapphires and Montana Agates he had found. The program began with pictures of the general area on Montana. The sapphire rough is found in ancient gravel bars located on the south side of the Missouri River near Helena. We were treated to pictures on his collecting over the years at several mines.

The basic way to collect sapphires is to first put gravel into a rocker box. Then that concentrate is put into a vibrator type piece of machinery that is connected to a water hose, thus concentrating the gravel further. Finally the concentrate is "puddled", a kind of rinsing operation. Lastly the concentrate is turned over and finally comes the picking of sapphires out of the concentrate.

Dick Flaharty had pictures of various types of each piece of equipment as well as

several mines. Currently many of the mines are no longer available for collecting. They have gone to the selling of buckets or bags of concentrate instead. Insurance has been given as the reason for the change.

After the program we had several announcements of upcoming shows: GemFaire in Pomona this weekend and the AFMA/CMFS Show in Whittier from June 18-21, 2010.

Meeting was adjourned at 8:20 pm.

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## May Program Brief

By Bruce Carter

The May program "Sapphires of Montana" was presented by Dick Flaharty. Through much of his 80-year collecting career, Dick has especially fond memories of collecting Sapphires along the Missouri River in Montana. From his first trip with an old car towing a trailer, he related many memorable experiences such as running out of gas, finding rough campgrounds, fly fishing in the rivers and enjoying the beautiful scenery of the area.

He treated us to many slides showing the scenery and also the diggings that mainly occur in glacial drift (gravel and sand) deposited along the valley floor of the Missouri, mostly parallel to the river. Sapphires are widely dispersed within these deposits and finding them takes a lot of hard work, usually with a shovel and bucket.

A favorite locale is the Gem Mountain mine where the price of a bucket of sediment used to sell for \$2, but currently goes for \$15. Camping at the Castles campground and working every day at the mine has been a favorite activity over the decades. The mine operators will often bulldoze off the overlying gravel, leaving 2-3 feet above the bedrock available for digging.

The sand and gravel is concentrated in a rocker box and then examined for sapphires. More sophisticated operations use vibrating separators and are quite effective in concentrating ilmenite and sapphire grains. Because the density contrast between corundum and normal sand minerals is less than in the case of gold, achieving effective concentration is a real challenge. An interesting "puddling" technique leaves the concentrate in the center of the box where sapphires can be picked out.

Dick also showed mining operations at the El Dorado and Spokane Bar mines. Unfortunately liability concerns have resulted in closing these mines to public digging in recent years. Now, the operators simply fill up sacks and sell them to members of the public who can then use pans, rockers and separators to find the sapphires. It's not really quite the same experience as digging the material oneself!



*Sapphire ring. All stones in this ring are uncut sapphire crystals found at Chassez Mine. Photo by Shou-Lin Lee*

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## **CFMS/AFMS SHOW & CONVENTION**

June 18-20 2010 10 to 5

So. CA University of Health Sciences Campus 16200 East Amer Valley Road

Whittier, California

- Information about the show is listed on the CFMS website at [cfmsinc.org](http://cfmsinc.org). Also MSSC Federation Director, Jo Ann Ritchy, can get you the forms.
- If you need to stay in the area for several days, the show chair have chosen a very nice hotel, Anaheim Park Hotel (877) 491-1011, in a very convenient location and negotiated a fabulous price. The special price is extended beyond the show for our special price for those who plan to go on the fieldtrips.
- At least 120 pieces of petrified wood from Walt Wright's collection will be on display and Mr. Wright will be there to answer any questions.
- The CFMS Director's meeting will be held on Saturday June 17, at 9:00AM at the La Habra Community Center. It is just a little way northeast of the show.
- The American Lands Access Association (ALAA) meeting will be held immediately after the Director's meeting.
- The Editors Breakfast will be held on Sunday June 18 at the Anaheim Park Hotel.
- All of the field trips are planned for after the show. Field trips to six locations are planned.

Following are the list of the dates and locations:

- June 21st: The Oceanview - Fee Dig \$50 (this is a \$25 discount per person). The group will caravan to the Lake Henshaw Resort. The show chair is working on a group rate reservation for the spaces next to the mine.
- June 22nd: The Himalaya – Fee Dig \$50 (this is a \$15 discount per person)
- June 23rd - Two trips planned. Trip one - Ant Hill, a more strenuous option and trip two – Jalama Beach lead by Joan Meredith, a less strenuous option.
- June 24th - Two trips planned too. Trip one – Lavic Siding lead by Jay Valle, a more strenuous option, and trip two – LA County Natural History Museum lead by Dr. Larry Barnes, a less strenuous option

## **2010 Mid-Year Public Lands Advisory Committee Report**

*(reprint from C.F.M.S. Newsletter, XLVI#6 June 2010)*

By John Martin

Listed below is the latest status on Proposed Legislation that will have an unfavorable affect on Rockhounding when passed. Getting involved with the process can help to keep our collecting locations open and accessible to all Rockhounds.

### **S. 787: Clean Water Restoration Act**

A bill to amend the Federal Water Pollution Control Act to clarify the jurisdiction of the United States over waters of the United States.

- April 2, 2009: Introduced
- Jun 18, 2009: Committee on Environment and Public Works. Ordered to be reported with an amendment in the nature of a substitute favorably.
- April 9, 2010: Still in Committee

### **S. 796: Hardrock Mining and Reclamation Act of 2009**

A bill to modify the requirements applicable to locatable minerals on public domain land, and for other purposes.

- April 2, 2009 Introduced
- July 14, 2009: Committee on Energy and Natural Resources. Hearings held. Hearings printed: S.Hrg. 111-116.
- April 9, 2010 Still in Committee

### **H.R. 699: Hardrock Mining and Reclamation Act of 2009**

To modify the requirements applicable to locatable minerals on public domain lands, consistent with the principles of self-initiation of mining claims, and for other purposes.

- January 27, 2009 Introduced
- February 26, 2009 the bill has been referred to the following committees:  
House Natural Resources, Subcommittee on Energy and Mineral Resources --  
Hearings Held
- April 9, 2010 Still in Committee

### **S. 799: America's Red Rock Wilderness Act of 2009**

A bill to designate as wilderness certain Federal portions of the red rock canyons of the Colorado Plateau and the Great Basin Deserts in the State of Utah for the benefit of present and future generations of people in the United States.

- April 2, 2009 Introduced
- April 2, 2009: Read twice and referred to the Committee on Energy and Natural Resources.
- April 9, 2010 Still in Committee

### **H.R. 1925: America's Red Rock Wilderness Act of 2009**

To designate as wilderness certain Federal portions of the red rock canyons of the Colorado Plateau and the Great Basin Deserts in Utah for the benefit of present and future generations of Americans.

- April 2, 2009 Introduced
- Oct 1, 2009: The bill has been referred to the following committees:  
House Natural Resources, Subcommittee on National Parks, Forests and Public Lands -- Hearings Held
- April 9, 2010 still in committee

### **S.2921: California Desert Conservation and Recreation Act**

A bill to provide for the conservation, enhanced recreation opportunities, and development of renewable energy in the California Desert Conservation Area, to require the Secretary of the Interior to designate certain offices to serve as Renewable Energy Coordination Offices for coordination of Federal permits for renewable energy projects and transmission lines to integrate renewable energy development, and for other purposes.

- December 21, 2009 Introduced -- California Desert Protection Act of 2010 - Amends the California Desert Protection Act of 1994.
- December 21, 2009 Senate Energy and Natural Resources
- April 9, 2010 still in committee with no (0) co-sponsors

### **H.R. 2454: American Clean Energy and Security Act of 2009 (CAP and TRADE)**

To create clean energy jobs, achieve energy independence; reduce global warming pollution and transition to a clean energy economy.

1. May 15, 2009 Introduced
2. June 26, 2009 Passed House 219 -212
3. July 7, 2009: Read the second time. Placed on Senate Legislative Calendar under General Orders. Calendar No. 97.
4. This is the most restrictive and regulating bill to come before congress in US history. If passed and signed into law it will have some controlling effects on each and every one of us in our daily lives. Even the short summary is too long to place in this article and the full text of the bill is over 1000 pages. To see the full text of the bill go to <http://www.govtrack.us/congress/bill.xpd?bill=h111-2454> .

For more detailed information on these issues go to the American Lands Access Association Website [www.amlands.org](http://www.amlands.org)

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## **A Recent Fossil Collecting Trip**

By Dan Krawitz

The Ford bus was traveling slowly down a lonely road east of Flagstaff. The rear shocks were noticeably depressed and the bottom half of the vehicle was covered by reddish-brown dirt, obviously from the nearby Painted Desert. It was after 10:00PM and the flashing red lights of a local police car were illuminating the interior of my heavily loaded vehicle, providing momentary glimpses of the many occupants in my 15-seat vehicle.

The cop walked up besides me..."I clocked you doing 30 and this is a 40 MPH zone." The bus was stone silent, and the officer's curiosity was getting the better of him. The seats were definitely occupied, and the bulging tires indicated a full load. His flashlight began to illuminate the interior, and to his surprise the seats were full of trees, petrified trees. All were of museum quality...complete bark, no cracks, full color, the best of the best. He seemed relieved that I was the only person in the vehicle. The tension in his voice disappeared and in a relaxed tone, we started to talk and chew the fat. If you go down a ways and turn left you will find a motel that is quite good and far from the railroad...nice and quiet. I thanked the officer and got away with a warning. I slept well knowing that I had gotten a great deal and no ticket.

Early that morning, I told my guide that I would purchase the entire collection of petrified tree stumps that were too large to fit into his saw. It would require two trips and to make the deal even better, he told me that I could field collect on his private land for free. The only catch was that I had to carry everything...his back was out and I had to do the grunt work. I found the work quite refreshing and between collected and purchased specimens, I was able to add several pieces to the educational outreach program.

What a deal it was and all for a bulk rate that has not been seen in years. One petrified log was completely covered by smoky quartz crystals, and another was unidentified, with a portion over at the University of Arizona.

I felt generous...I told my guide about the fish fossil dig this summer. The caravan of collectors will leave California on July 24th and we should be at the dig site around July 28th. We will be collecting in the Green River Formation in Wyoming. He asked about the cost. It is only \$595/person (food and lodging is separate) and all transportation is provided. If you take your own car, the fee is only \$395/person. He was definitely interested but was unsure if he could take the week off. I also planned to give him a bunch of fish fossils to make up for his generosity on the recent acquisitions. Where can I read about it...is there anything on line?

I gave him the website URL. Just go to [www.scienceattractions.com](http://www.scienceattractions.com) and click on the field trips and vacation section. You could also go directly to the webpage by typing [www.scienceattractions.com/fieldtrips.htm](http://www.scienceattractions.com/fieldtrips.htm)

I told him that I would be back in about two weeks to get the rest of the material. Before I left, I gave him some pictures from an earlier fish fossil dig and a 10-page written summary of the entire adventure [www.scienceattractions.com/fieldtrips.htm](http://www.scienceattractions.com/fieldtrips.htm) with day-by-day details.

As I was leaving, I took notes so that I could find his ranch again without an escort. Let's see, it was 0.6 miles on the dirt road and two miles on a graded washboard gravel road. Turn right after the cinder cone and follow the tire tracks to the paved road. Drive 9.5 miles along the paved section and make a left when you get to the end of the road. Then follow the road around and it will eventually get to I-40 east of Flagstaff. Oh yes...drive slow near the bushes at the end, as there are usually cops there...it's a well known speed trap. Just don't drive too slow.





## 2010 Calendar of Events

**June 4-6 2010, Woodland Hills, CA** Rockatomics Gem and Mineral Society Pierce College 6201 Winnetka Ave., Woodland Hills Hours: 9-5 Email: [Show@Rockatomics.org](mailto:Show@Rockatomics.org) Website: [Rockatomics.org](http://Rockatomics.org)

**June 5-6 2010, Glendora, CA** Glendora Gems Goddard Middle School 859 East Sierra Madre Hours: Sat. 10-5; Sun. 10-4.

**June 18-20 2010, Whittier, CA** AFMS/CFMS Show and Convention Hosted by North Orange County Gem and Mineral Society So. CA University of Health Sciences Campus 16200 E. Amber Valley Rd., Whittier CA Hours: 10-5 daily Don Warthen (626) 330-8974. Website: [www.nocgms.com](http://www.nocgms.com)

**June 19-20 2010, Cayucos, CA** San Luis Obispo Gem & Mineral Club Cayucos Vets Hall (next to Cayucos Pier) 10 Cayucos Drive Hours: 9-5 Daily Mike Lyons (805) 610-0757. Website: <http://www.slogem.org/>

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