Bulletin of the Mineralogical Society of Southern California

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August 2009

The 857th Meeting of The Mineralogical Society of Southern California

Picnic Time

at

Fallbrook Gem and Mineral Museum

Saturday, August 22, 2009, at 11:00 a.m.

123 W. Alvarado St. Fallbrook, California

Featuring:

- Invitation from Fallbrook Gem and Mineral Society
- Carved gems exhibit at Getty Villa
- California state law regarding rockhounding

August Program

GEM AND MINERAL

POT LUCK/SWAP MEET TIME AGAIN

By Michael T. Evans

Assistant Curator

Fallbrook Gem & Mineral Museum

Once again the Fallbrook Gem and Mineral Society invites its membership and also members of the Palomar, Vista, San Diego Gem and Mineral Societies and the Mineralogical Society of Southern California to participate in a gem and mineral related swap meet and potluck luncheon.

The date is Sunday, August 22 and will be held at the Fallbrook Gem and Mineral Society (123 W. Alvarado Street, Fallbrook, CA 92028). Arrival and setup time will begin at 11 AM and the potluck will be from 12 PM to 1 PM. The selling will be from 1 PM till 4 PM. Table space will be limited. We ask that you limit your items to things that relate to minerals, fossils, gems and jewelry. Also we are asking for a 10% donation from all your sales. This money will be used towards the mortgage of the building, which includes its museum that is open to the public. Got a bunch of duplicates? Tired of looking at that old fluorite? Got some jewelry you made you're eager to sell? Want to sell some of your collection, but are not a dealer? Want to share some food and good company with others who share common interests? If the answer is yes to any of the above, please mark your calendar for August 22 and we hope to see you there. Please contact our office at (760) 728-1130 if you plan to attend and need table space for your items, as space is limited. Please come even if you don't plan to sell; you can always buy (you will be tempted) and even if you don't, you can share in the fellowship!

Please bring something yummy to share for the potluck (we've all done potlucks before, so you get the idea). We will supply plates, cups, utensils and napkins! It will be indoors!

We hope you will join us for a fun afternoon!

Driving instructions: Take I-15 south from Temecula to Mission Rd exit (exit #51) toward Fallbrook (west). Continue on E. Mission Rd as it joins Old Hwy 395 and CR-S13. It is about 5 miles to downtown Fallbrook. Turn left onto N. Main Ave. Go three blocks and turn right on W. Alvarado St. Park in the lot on the south side of the street, opposite the museum. Driving time from Pasadena is approximately 1 hour and 40 minutes.



Click on maps for a larger view.



Minutes of the July 10, 2009 Meeting

The 856th meeting of The Mineralogical Society of Southern California was held on Friday, July 10, 2009, at Pasadena City College, Pasadena, CA. President Geoff Caplette brought the meeting to order at 7:30 p.m. Vice President Bruce Carter then introduced the speaker of the evening, Dr. Mary Johnson, who gave a presentation entitled: "How Gemology is Different than Mineralogy."

Dr. Johnson has earned degrees in geochemistry from Caltech and in mineralogy/ crystallography from Harvard, and was Director of Research at the GIA. She has also researched sulfide minerals, high-pressure chemistry and physics, and gemstones and their respective cuts and treatments, among many other subjects. Her most recent achievement is the co-authoring of the book "Gemstones," an introduction to the concepts of mineralogy and gemology.

Dr. Johnson defined a mineral as a naturally occurring solid with a fixed chemical composition and a specific internal crystal structure. She stated that both chemistry and structure are needed to define a mineral. Chemistry can be determined by electron microprobes, while structure requires x-ray diffraction.

Mineralogy is a science (a specific method of studying the universe around us involving observation, formulation of a hypothesis, predictions testing, publishing results and eventually developing a theory). Dr. Johnson also related the history of the ways in which mineralogists classified minerals, including a description of the Dana system and its evolution.

A gem is a naturally occurring substance with the characteristics of beauty, durability (usually harder than quartz), and rarity. A gem can be animal, vegetable or mineral.

Practical classifications of gems are ordered by properties, especially color and refractive index, or by importance. The testing of gems must be nondestructive and is performed with portable equipment.

Gemology is more of a practical inquiry, but is maturing as an applied science (e.g. synthesis treatment studies).

Mineralogists and gemologists don't have the same clues; mineral and gem names are defined differently; and, for gemologists, varieties matter.

Vice President Carter reminded members about the Fallbrook Gem and Mineral Society's Annual Pot Luck and Swap Meet to be held on Saturday, August 22, 2009 (details provided in the July 2009 Bulletin).

The door prize was won by Ann Meister.

President Caplette brought the meeting to a close at 8:50 p.m.

Respectfully submitted, Pat Caplette Secretary

Carved Gems Exhibit at Getty Villa

By Shou-Lin Lee

The Getty Villa in Malibu is currently hosting an exhibit of ancient carved gems entitled "Carvers and Collectors: The Lasting Lure of Ancient Gems."

The day I visited the place, a master gem carver, Chavdar Chushev held a two hour lecture and demonstration on how ancient peoples carved gems.

Mr. Chushev opened his lecture by briefly describing how ancient carvers used to carve gems, using olive oil and simple tools made out of wood and copper. Mr. Chushev promised that he would reveal some of these carvers' trade secrets. To demonstrate his point, Mr. Chushev first broke a toothpick in half. He then used half a toothpick as a bur by putting it into the chuck of the hand piece of a flexible shaft, filed the tip of the tooth pick to shape, then dipped the tooth pick in olive oil. He powered up the flexible shaft and lightly touched a piece of preformed red jasper with the tip of the toothpick. As the toothpick rotated at high speed, the clear olive oil gradually turned red, a sign that the toothpick was grinding the jasper. Sure enough, after he stopped the flexible shaft, and cleaned the stone, there was an indentation. There was an audible noise from audience. Mr. Chushev then explained that the olive oil was no ordinary olive oil. The olive oil was mixed with fine diamond powder. And it was the diamond powder that put the dent in the jasper.



Gems from the collection of the J. Paul Getty Museum (detail) Top left: Apollo (detail), attributed to Solon, 30–20 B,C. Top center: Hermaphroditus Beated on an Altar, possibly by Protarchos, 150–100 B,C. Top right: Diomedes and the Palladion (detail), unknown, about 1800 Center left: Mark Antony, Gnaios, 40–20 B.C. Bottom left: Zeus and Kapaneus before the Walls of Thebes (detail), attributed to Giovanni Calandrelli, 1816–27 Center: Antinous, Giovanni or Luigi Pichler, 1750–1850 Bottom right: Cupids Erecting a Trophy (detail), Roman, A,D, 1–100 Bottom far right: Woman and Girl (detail), Roman, A,D, 1–100 Picture and caption from http://www.getty.edu/art/exhibitions/gems/.

Some of the tips that Mr. Chushev shared included: how to make diamond powder out of diamond crystals, how to separate different grits of the diamond powder, how to treat agate to get red color and dark brown color agate.

The exhibit runs from March 19 through September 7, 2009. The admission is free, however, advance tickets are required for admission. Tickets can be obtained online at www.getty.edu or calling (310) 440-7300. Parking is \$15 dollars. A video of Mr. Chushev carving an agate and some of the carved gems on display, is also available for viewing on http://www.getty.edu/art/exhibitions/gems/.

Rockhounding in State Parks



BLM Mining-Related Fees

By John Martin,

AFMS Conservation & Legislation Committee

Reprint from Notes from John C.F.M.S. Newletter, XLV #7, August 2009 pages 6-8

ROCKHOUNDING IN CALIF. STATE PARKS

During the last several months there have been several incidences where rockhounds have had an encounter with an authority figure over collecting in a California State Park or on a California State Beach. After lengthy searches on the internet, hours of reading regulations and several trips to the local State Senator office, there is light at the end of the tunnel, and it is not the headlight of the approaching train. Yes, Virginia, there really is rock collecting within the boundaries of California State Parks and California State Beaches. The collecting regulations are intermixed within several dozen California Code of Regulations documents, which give explicit collecting requirements and conditions. This does not mean that collecting is allowed at all parks and beaches nor does it exclude collecting from all parks and beaches. As it turns out, each unit within the California State Parks System, through its own regulatory processes, may, can and will regulate rockhounding within its own boundaries within the regulations established at the state level. During the search of the regulations covering rockhounding, it was discovered that there is no actual reference to the collecting of paleontological resources, such as fossils, petrified bone or petrified wood, nor is there any exclusion for these. So, during visits to California State Parks and Beaches for rockhounding activities, just keep in mind their definition of rockhounding as defined in the California Code of Regulations. There are over 200 units within the California State Parks System, and therefore there could be over 200 different collecting regulations. After surfing several State Park and State Beach web sites, I discovered no consistency in published unit regulations. For example, Hearst San Simeon State Park allows rockhounding as published in the California Code of Regulations; Carpinteria, El Capitan and Gaviota State Beach web sites had no mention of rockhound opportunities. Some of the State Park web sites included Providence Mountains, which includes Mitchell Caverns, Silverwood Lake, which borders the National Forrest, had no mention of rockhound collecting while Red Rock Canyon State Park states that "All plant, animal, natural and cultural features are protected. Collection is prohibited without a permit." So to be on the safe side and to avoid any confrontation with that big guy with the gun, check at the entrance to the park for the bulletin board where there will be the "Posting of Notices" where special instructions pertaining to areas where activities are curtailed or restricted are to be found for the particular state park or beach. If there is no posting of restrictions, check with park personnel before collecting to avoid loosing the collected specimens or worse yet, receiving a citation from a park ranger where the fine could be between \$10 and \$1,000 or more. Just remember to follow the California Code of Regulations for Rockhounding and you should be safe. "Check before you collect." Below is the California Code of Regulations pertaining to the California State Parks and Beaches to serve as a guide while rockhounding.

CALIFORNIA CODE OF REGULATIONS

TITLE 14. NATURAL RESOURCES

DIV. 3. DEPT. OF PARKS & RECREATION

CHAPTER 1. GENERAL

§4307. Geological Features.

- (a) No person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves.
- (b) Rockhounding may be permitted as defined in Section 4301(v).

§4308. Archaeological Features.

No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value.

§4309. Special Permits.

The Department may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological or paleontological materials; and any person who has been properly granted such a permit shall to that extent not be liable for prosecution for violation of the foregoing.

CALIFORNIA CODE OF REGULATIONS

TITLE 14. NATURAL RESOURCES

DIV. 3. DEPT. OF PARKS & RECREATION

CHAPTER 1. GENERAL

§4301. Definitions.

(i) **Posting of Notices.** The term "posted" as used herein, unless otherwise indicated, shall mean and require that the Department shall set aside at the district headquarters and at the **unit affected and in a location convenient to the general public**, a bulletin board or similar device upon which shall be posted all special instructions, orders, pertaining to units of the district including but not limited to special hours of operation, swimming and boating restrictions, hunting and camping restrictions, and **special instructions pertaining to areas where activities are curtailed or restricted**. Proof of posting shall be filed in the offices of

the division chiefs or the Sacramento California Office of the Division of Off-Highway Motor Vehicle Recreation.

- (t) Unit. Unit means any named and classified unit under control of the Department of Parks and Recreation, as well as any Department projects which have not yet been named or classified.
- (v) Rockhounding is defined as being the recreational gathering of stones and minerals found occurring naturally on the undisturbed surface of the land, including panning for gold in the natural water-washed gravel of streams.
- (w) **Float Material** is defined as materials only occurring naturally on the surface of the land.

TITLE 14. NATURAL RESOURCES

DIV. 3. DEPT. OF PARKS & RECREATION

CHAPTER 6. PROVISIONS LIMITED TO SPECIFIC UNITS

§4611. Rockhounding.

- (a) Rockhounding is authorized by Section 5001.65 of the Public Resources Code.
- (b) Units and portions thereof open for Rockhounding will be posted in accordance with Section 4301(i).
- (c) Commercial Use. Rocks or mineral specimens gathered within a unit may not be sold or used commercially for the production of profit.
- (d) *Maximum Take*. One person may gather, in one day in one unit, not more than 15 pounds of mineralogical material or not more than one specimen plus 15 pounds of mineralogical material.
- (e) *Use of Tools*. **Tools**, except goldpans to be used in gold panning, **may not** be used in rockhounding within a unit.
- (f) Areas for Swimming and Boating. In state recreation areas rockhounding may not be practiced in areas designated for swimming or for boat launching.
- (g) Areas Limited for Collecting. In state recreation areas rockhounding is limited to beaches which lie within the jurisdiction of the Department and within the wave action zone on lakes, bays, reservoirs, or on the ocean, and to the beaches or gravel bars which are subject to annual flooding on streams.
- (h) *Indian Artifacts*. Rockhounding in a unit specifically does not include the gathering of Indian arrowheads, Indian stone tools, or other archeological specimens, even when such

specimens may be found occurring naturally on the surface.

(i) *Panning for Gold*. Panning for gold is considered to be "rockhounding" as the term is applied in the Department. The goldpan is the only exception permitted to the exclusion of tools from rockhounding in a unit as provided in Section 4610.5. Muddy water from panning operations must not be visible more than 20 feet from the panning operation.

California State Beach Regulations

General Regulations (14 Cal. Code of Regs.)

- **6) Geological Features.** No person shall destroy, disturb, mutilate, or remove earth, sand, gravel, oil, minerals, rocks, paleontological features, or features of caves except rockhounding may be permitted as defined and delineated in Sections 4611 (a) through (i) (14 Cal. Code of Regs. 4307).
- 7) Archaeological Features. No person shall remove, injure, disfigure, deface, or destroy any object of archaeological or historical interest or value (14 Cal. Code of Regs. 4308).

BLM Announces Adjustments to

Mining-Related Location & Annual

Maintenance Fees

In June, the Bureau of Land Management published in the Federal Register a notice that it is adjusting for inflation its fees for the location (or "staking") and maintenance of unpatented mining claims, mill sites, and tunnel sites. The location fee will increase from \$30 to \$34 and the maintenance fee will rise from \$125 to \$140 for such unpatented claims, in which no federal land has been transferred to the individual or company staking the claim.

The adjusted fees are due on or before September 1, 2009. Mining claimants must pay the new location fee for any mining claim or site located after the effective date of this final rule, which is today (June 29, 2009). Those who have already submitted maintenance fees for the 2010 maintenance year will be given an opportunity to pay the additional amount without penalty upon notice from the BLM.

Since Fiscal Year 1993, mining claimants staking new claims or sites have been required to pay a one-time location fee. Claimants must also pay an annual "maintenance" fee in lieu of performing annual assessment work and making annual filings.

In accordance with the Mining Law of 1872, as amended, and in light of recent related regulatory actions, the BLM is announcing today a new final rule that establishes a regular schedule for adjusting mining-related location and annual maintenance fees. Specifically, the new rule authorizes adjustments to these fees to reflect changes in the Consumer Price Index every five years after August 10, 1993, or more frequently if the Secretary of the Interior

determines an adjustment to be reasonable.

The BLM has not adjusted location and maintenance fees since 2004. The adjustments made in this final rule are based on the change in the Consumer Price Index from December 31, 2003, through December 31, 2008, as reported by the Bureau of Labor Statistics.

The link to the final rule in the Federal Register is: http://edocket.access.gpo.gov/2009/pdf/E9-15248.pdf



2009 Calendar of Events

August 1-2 2009, San Francisco, San Francisco Gem & Mineral Society San Francisco County Fair Building Ninth Ave. at Lincoln Way Hours: Sat. 10-6, Sun. 10-5 Website: www.sfgms.org

August 7-9 2009, Nipomo, Orcutt Mineral Society St Joseph's Church 298 S. Thompson Ave. Hours: 9-5 daily Wes Lingerfelt (805) 929-388 Website: www.omsinc.org

August 14, 15 & 16 2009, Tehachapi, Techachapi Gem & Mineral Society St

Malachy Catholic Church 407 West E. Street Hours: Fri. &: Sat. 8-7:30; Sun. 8-5:30

August 22-23 2009, Orangevale, Orangevale Communit Center 6826 Hazel Ave. Hours: Fri. &: Sat. 10-6; Sun. 10-5