

# The Rock Bag

**April 2009 Volume 47 Issue 4**

**Oxnard Gem & Mineral Society  
Oxnard, California**

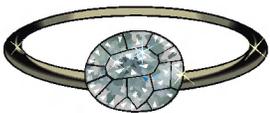


**M. Tetreault**

**OGMS Editor**

**1134 Sunnycrest Ave.**

**Ventura, CA 93003**



## Oxnard Gem & Mineral Society

P. O. Box 246  
Oxnard, CA 93032

**Web address: [www.oxnardgem.com](http://www.oxnardgem.com)**

The Oxnard Gem & Mineral Society is a non-profit organization formed to increase our knowledge in geology, mineralogy and other such related fields in the earth sciences. We classify, cut, grind and polish rocks and minerals for our personal collections and to display at club shows. We learn from each other through club speakers, programs and monthly fieldtrips. We co-operate with other clubs to encourage others to participate in our activity.

The Oxnard Gem & Mineral Society is a member of the State of California Federation of Mineralogical Society and the National Federation of Mineralogical Society.

**Meeting held:** 1<sup>st</sup> Wednesday of each month at 7:30 P.M.

**Place:** Performing Arts Center, 800 Hobson Way, Oxnard, CA (Thousand Oaks Room)

**Dues:** \$15.00 per adult; \$2.00 per junior member (age 12 to 18 years)

### OGMS Officers for 2009

President	Kay Hara	kharaftdoc@aol.com	W 525-5415, H 525-7634
1 <sup>st</sup> Vice President (Programs)	Brett Johnson	bj9709@yahoo.com	822-3836
2 <sup>nd</sup> Vice President (Show)	Norb Kinsler		644-6450
3 <sup>rd</sup> Vice President (Field trips)	Ron Wise	clintwise@hotmail.com	647-4393
Recording Secretary	Lee Leighton	ameritus@sbcglobal.net	647-4594
Treasurer	Stephanie Hagiwara	purplehawk@hotmail.com	986-2006

### Appointed Standing Committee Chairmen

Corresponding Secretary	Louisa Carey	big_L76@yahoo.com	(503) 309-6147
Displays/Exhibits	Brett Johnson	bj9709@yahoo.com	822-3836
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Education Director	Donna Knapton	dknapton@hotmail.com	647-8762
Federation Director	Jim Brace-Thompson	jbraceth@roadrunner.com	659-3577
Historian	Open		
Hospitality	Louisa Carey	big_L76@yahoo.com	(503) 309-6147
Librarian	Karen Bialobreski		(707) 648-7634
Member at Large	Miriam Tetreault	editor_ogms@roadrunner.com	642-5779
Membership Secretary	Anne Lewis		485-6356
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Parliamentarian	Miriam Tetreault	editor_ogms@roadrunner.com	642-5779
Refreshments	Louisa Carey	big_L76@yahoo.com	(503) 309-6147
Sergeant at Arms	Larry Knapton	dknapton@hotmail.com	647-8762
Ways & Means	Jean Wise		647-4393

**Classes:** Silversmithing & Casting: Lois Allmen, Nancy Bogart & Albert Rubio  
Lapidary, Opal & Wire wrap: Kay Hara, Dan Gealy, Brett Johnson & Don Minster  
Location: Durley Park, 950 West Hill Street, Oxnard, CA 93030

**Editor:** All members are encouraged to offer an article of interest or any suggestions as to what their interests are and what they'd like to see in the Rock Bag. Remember it is your bulletin! Articles can be submitted by an e-mail attachment or in writing by the 2<sup>nd</sup> Wednesday of the month.  
**Thanks, Miriam**

## April Program

On Wed., April 1<sup>st</sup>, we will be having our Member Sponsored Silent Auction. Once again, you are encouraged to bring some of your treasures to donate to the Auction. Bring your extra minerals, spare cabochons, miscellaneous jewelry, assorted fossils, rough stone that need some work, slabs ready for cabbing, and other gems of plenty.

The Auction will start at 7:45pm; after the announcements and guest greetings. It will continue for most of the evening until the end is called. So bring as many of your donations and plenty of cash (small bills, please), because you never know what might be on the table.

~ Brett - VP-OGMS

### MINUTES OF THE MARCH 4, 2009 General Membership Meeting

- Call to Order:** President Kay Hara called the meeting to order at 7:30P.M.
- Minutes:** The minutes were approved as written.
- Membership:** We have 67 paid members at this time.
- Hospitality:** There were 25 members and seven guests present. The guests were: Glen Gloyd, Charlotte Ward, Fred Ward, Rob Sankovich, Rudy Martin, Kathy Julian, Roy Boulch. April and Gary Louis were presented as new members.
- Treasurer:** We are solvent.
- Award:** An award was presented to Rudy in recognition of his dedicated prior service to the club. President Kay Hara presented the award.
- Correspondence:** Show notices and ads were put out on the table.
- Audit:** An audit was conducted on the Show books and the club's General ledger. The books are in good order.
- Silent Auction:** The Silent Auction for LuNeal's goodies brought in \$95.
- Business:** New and Old Business was rescheduled to facilitate a longer program tonight.
- Program:** The program tonight was on Rubies and Sapphires, presented by Fred & Charlotte Ward. Sri Lanka and Burma are the major producers of those gems. Sapphires come in all colors. Many of the gems are heat treated to bring out the colors. A heat treated stone is worth less.
- Refreshments:** The refreshments in April will be done by Norb and Donna.
- Adjourned:** The meeting was adjourned at 9:06 P.M.
- ~ Lee Leighton, Recording Secretary

### MINUTES OF THE MARCH 11, 2009 Board of Directors Meeting

- Call to Order:** President Kay Hara called the meeting to order at 7:30P.M.
- Minutes:** The minutes were approved as written.
- Membership:** We have 65 paid members at this time. The roster is almost done.
- Treasurer:** We are solvent. Income and expenses were discussed. A motion was passed to pay the bills.
- Correspondence:** New fliers were passed around for examination.
- Hospitality:** New badges and membership pins were discussed.
- Old Business:** Some of the Durley Park equipment needs to be replaced. The saw motor needs to be replaced with a 1hp motor. We have the motor. Noise pollution at the meetings was

discussed. The Membership Committee was also discussed. Don Minster volunteered to be on the 2008 Audit Committee. The Scholarship money was paid.

**New Business:**

A motion was passed to donate \$100 to the Wright Library. The Ventura Show was discussed. Ventura needs glass display cases for their new museum, because so of theirs were vandalized and ruined. Don Minster was approved as the Covington Lap Supply rep. He will receive discounts from 10% to 20% on club supplies. Don Minster was nominated as an O.G.M.S. Ambassador.

**Officer Reports:**

**1<sup>st</sup> Vice President:** Next meeting will be the member-sponsored Silent Auction. Upcoming will be a program by a synthetic gem manufacturer - Common Fakeries and Fraudulent Minerals.  
**2<sup>nd</sup> Vice President:** There was a show meeting tonight. The trailer storage fees went up. Alternatives were discussed.  
**3<sup>rd</sup> Vice President:** See the Rock Bag for upcoming fieldtrips.

**Federation:**

The Omnibus land act was defeated today. CFMS Show: 4/17 - 4/19.

**Editor:**

Putting the Rock Bag on the website was discussed.

**Education:**

The Rock Boxes are being delivered and instructions given. A motion was passed to donate \$100 to Diamond Dan for teacher subscriptions to the newsletters.

**Library:**

\$3.25 worth of magazines were sold.

**Classes:**

A motion was passed to put new shelving in the Lab. Sean will do the work. The cost is not to exceed \$100. **Cabochons are needed for the new silver students.** Perhaps members have some they could donate. The son of Bill Harris wants to re-open sales of rocks to the local rock clubs. Bill Harris is not in good health.

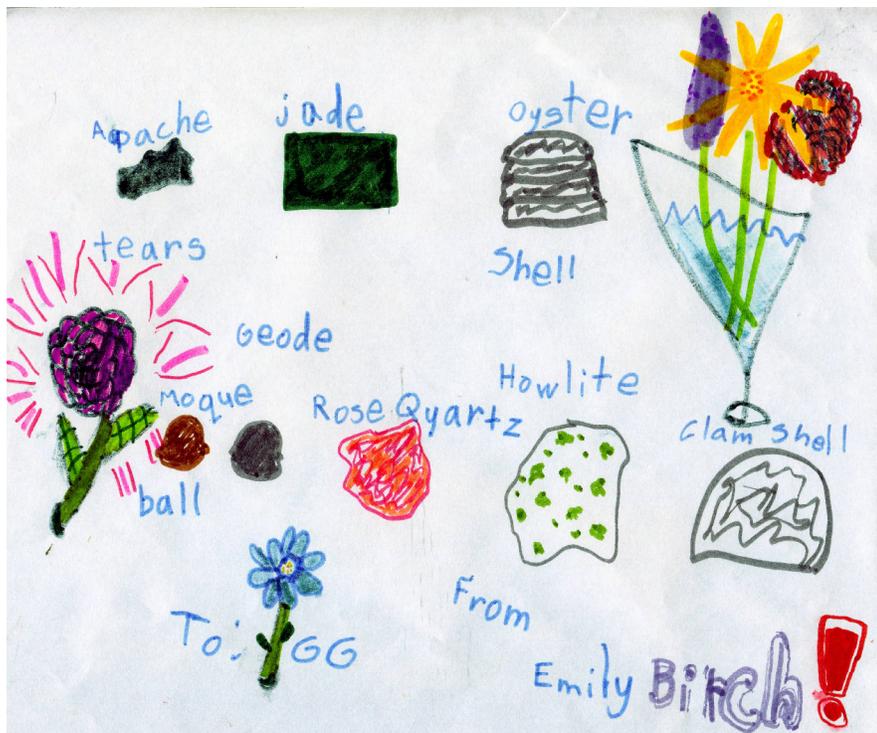
**Ways and Means:**

Policies were discussed for presenting prizes when the Ways and Means Officer was not present.

**Adjourned:**

The meeting was adjourned at 9:15 P.M.

~ Lee Leighton, Recording Secretary



**Local Field Trip!**

This drawing is by Lois' 7 year old great granddaughter, Emily Birch, while on a visit from Montana. She had a field trip in Lois' backyard and drew a picture of the goodies she selected when she arrived home. On occasion her father takes her fossil hunting near their home.

Thanks Lois for sharing it with us.

## April 2009

*Monthly Planner*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: auto;">                     March                      S M T W T F S                      1 2 3 4 5 6 7                      8 9 10 11 12 13 14                      15 16 17 18 19 20 21                      22 23 24 25 26 27 28                      29 30 31                 </div>		1 9:00 AM Sil Cl. 7:30 PM Club Meeting.	2 7:00 PM Adult Lapidary Cl.	3 6:30 PM Youth Lapidary Cl.	4 9:00 AM Opal Cl. 9:30 AM Wire wrap Class
5 CFMS Show 17-19 Santa Clara	6 9:00 AM Silver Class	7 7:00 PM Silver Class	8 9:00 AM Sil Cl. 7:30 PM Bd. Meeting	9 7:00 PM Adult Lapidary Cl.	10 6:30 PM Youth Lapidary Cl.	11 9:00 AM Opal Cl. 9:30 AM Wire wrap Class
12 <b>Easter</b>	13 9:00 AM Silver Class	14 7:00 PM Silver Class	15 9:00 AM Silver Class	16 7:00 PM Adult Lapidary Cl.	17 6:30 PM Youth Lapidary Cl.	18 9:00 AM Opal Cl. 9:30 AM Wire wrap Class
19 Jalama B. 25th See Rob 494-7734	20 9:00 AM Silver Class	21 7:00 PM Silver Class	22 9:00 AM Silver Class	23 7:00 PM Adult Lapidary Cl.	24 6:30 PM Youth Lapidary Cl.	25 9:00 AM Opal Cl. 9:30 AM Wire wrap Class
26 <b>Birthstone: Diamond</b>	27 9:00 AM Silver Class	28 7:00 PM Silver Class	29 9:00 AM Silver Class	30 7:00 PM Adult Lapidary Cl.	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: auto;">                     May                      S M T W T F S                      1 2                      3 4 5 6 7 8 9                      10 11 12 13 14 15 16                      17 18 19 20 21 22 23                      24 25 26 27 28 29 30                      31                 </div>	

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### Omnibus Public Lands Act Defeated

*(Note: In 2008, a huge bill called the Omnibus Public Lands Management Act was introduced into Congress. It was killed by a filibuster toward the end of last year but was reintroduced with the new Congress at the beginning of this year. This Act included bills that would have affected fossil collecting by amateurs and that would have designated huge portions of the American West as "wilderness areas," effectively shutting off access for recreational rockhounding on many BLM lands. Following is a news flash on this.)*

Our voice does count!!! I'm delighted to report that all of our letters and calls appear to have paid off. At 12:30 PM, March 11, the Omnibus Public Lands Management Act of 2009 was defeated by ONE VOTE! The bill, containing over 1, 200 pages, encompassed 160 different bills, including the Paleo Protection Act, which many in the rockhounding community objected to. I'm not certain if this marks the end of the bill for this session or if it can be reintroduced...stay tuned! ~ Carolyn Weinberger, Editor, American Federation of Mineralogical Soc.

### Federation Report

The big event on the immediate horizon is the **Annual CFMS Show & Convention** taking place **April 17-19 in San Jose, California**. I'll be attending the Directors' meeting there and will have a full report to offer on my return with updates from the California Federation. San Jose is quite a drive for those of us in SoCal, but I encourage everyone who can to make the trip north and attend the show—or better yet, participate by entering an exhibit! For the past several months, I've put show packets on our take-one table during our monthly meetings for anyone interested. You can also obtain show info from the CFMS web site ([www.cfmsinc.org](http://www.cfmsinc.org)) or

from the web site of the local society that's hosting the show this year, the Santa Clara Gem & Mineral Society ([www.scvgms.org](http://www.scvgms.org)). But if entering a display, you need to hurry! The deadline to submit exhibitor application forms is March 25.

In other Federation news, **several CFMS-sponsored field trips** are on the horizon, including **Lavic Siding** for jasper and agates on April 25 and **North Edwards** for onyx on May 23. Contact Shep Koss ([freudonetoo@yahoo.com](mailto:freudonetoo@yahoo.com); 661-248-0411) or Adam Dean ([theagatehunter@verizon.net](mailto:theagatehunter@verizon.net); 909-489-4899) for full details. Finally Dick Pankey ([dickpankey@juno.com](mailto:dickpankey@juno.com); 925-439-7509) is one of the leaders of an "Inter-regional Rockhound Rendezvous" for collecting obsidian and other minerals in the **Davis Creek/Lassen Creek** area over the Memorial Day Holiday weekend, May 20-25. This will include tailgate displays, map exchanges to collecting sites, and a "knapp-in" to trade knapping techniques with the obsidian you'll be collecting. Contact Dick today for details. He asks that anyone interested call him to sign up no later than May 16. Finally, if you'd like to attend the spring CFMS lapidary workshops at **Camp Paradise** or the fall workshops at **Zzyzx**, get your applications in as soon as possible! I've placed application forms on our take-one table at club meetings and will continue to do so, but these workshops will fill up fast, especially Zzyzx. You can also get forms from the CFMS web site noted above. ~ Submitted by Jim Brace-Thompson, OGMS Federation Director

## April Field Trip

### Jalama Beach, Lompoc Calif. April 25th Sat. 10am

**Tri Club Field Trip - Conejo, Oxnard, and Ventura:** Our April field trip will be to Jalama Beach. We will be looking for Agate, Jasper, Petrified Whale Bone, Travertine Onyx, and Fossils. They can be found along the shoreline. You can come up for the day or camp overnight. Day use \$6.00, camping \$18.00, electric hookup \$25.00. Campsites are assigned on a first come, first served basis, one vehicle per site. There are 98 campsites, all overlooking the ocean or beach front. Each site has a picnic table and BBQ, with hot showers, restrooms and water nearby. 29 sites offer electrical hookups, and dump station is available. I will not be camping.

**Directions:** From Ventura head north on 101, past Santa Barbara, just past Gaviota as the 101 goes inland take the State Hwy 1 turn off, marked Lompoc/Vandenberg. Go north approximately 13.5 miles to Jalama Beach County Park turn off. Turn left, west, and drives approximately 15 miles to Jalama Beach County Park. It is approximately 122 miles from Thousand Oaks, 2.5-3 hour drive time.

**Meeting:** Saturday afternoon, April 25th 2009, 10am - 4pm. We will meet in the parking lot. I will be driving silver Toyota SUV with a CGMC sign in the window. There will be a short briefing of the site. Please remember to sign a release form to participate in the field trip. We will then walk along the beach south of the parking lot, approximately 2.5 miles to an area that has cement on the side of the hill. The Shale in the area is a good place to look for fossils. Along the beach you can find agate, jasper in shades of brown, honey, gold, and clear. Travertine Onyx can be found north of the parking lot approximately 1.5 miles.

**Tools:** Collecting bags, buckets, day pack, digging tools, rock pick, pry bar, eye protection, trowels, hat, sunglasses, sunscreen, sturdy shoes, newspaper for wrapping fossils, layered clothing, towels, change of clothes/shoes in case you get wet. Drinking water, lunch or snacks, camping gear if you plan on spending the night.

**Contact:** Robert Sankovich [805] 494 - 7734, [rmsorca@adelphia.net](mailto:rmsorca@adelphia.net)

Mike Miller [805] 498 - 9586, [rockfmdr@aol.com](mailto:rockfmdr@aol.com)

Jalama Beach County Park

Star Route, Jalama Rd, Lompoc, CA 93436

Recorded Information (805) 736 - 6316, Park Office (805) 736 - 3504

**Links:**<http://www.sbparks.org/docs/jalama.html>

[http://www.santabarbara.com/activities/camping/jalama\\_beach/movies/MOV00362.MPG](http://www.santabarbara.com/activities/camping/jalama_beach/movies/MOV00362.MPG)

### CFMS Field trip - June

Join us in **San Diego County** to dig up world famous tourmaline:

**Where:** The Himalaya & Oceanview Tourmaline Mines

**When:** June 6 & 7

**Material:** Tourmaline, aquamarine, kunzite, morganite, quartz crystals, etc

**What to bring:** All you need are containers to store your finds; everything else (except food and water) will be supplied by the mines.

We have planned this trip to what we consider to be the two best and most productive tourmaline mines in the San Diego area. This trip is an overnigher. Recommended places to stay are the Lake Henshaw Resort (at the Himalaya site) and the Pala Casino/Hotel (near the Oceanview Mine). The two sites are about 30 minutes from each other. For Oceanview, visit [www.digforgems.com](http://www.digforgems.com) for details of the mine, materials, and policies. The trip includes an optional tour of the mine (very educational). Visit [www.highdesertgemsandmineral.com](http://www.highdesertgemsandmineral.com) for materials, policies and details on the Himilaya, including specific regulations regarding children and pets. Currently, the combined rate for both mines is \$100/person. This rate is subject to change depending on number of attendees. This is open to the first 50 respondents (subject to change on maximum number).

Because there will be no *CFMS Newsletter* for May, please visit the CFMS web site for further details ([www.cfmsinc.org](http://www.cfmsinc.org)). This is the only info available for this trip at this point, but more will develop. For more info on all three trips this spring, contact CFMS Field Trips-South Co-Chairs Shep Koss ([freudonetoo@yahoo.com](mailto:freudonetoo@yahoo.com); land line 661-248-0411) or Adam Dean ([theagatehunter@verizon.net](mailto:theagatehunter@verizon.net); cell phone 909-489-4899. ~ Shep & Adam

### Minutes of the 26<sup>th</sup> meeting of the Tri-Club Education Committee

The meeting was called to order at 7:20, February 17, 2009 by Chairman, Donna Knapton. Present were Brett Johnson, Stephanie Hagiwara, Mitty Scarpato, Jim Brace-Thompson and Larry and Donna Knapton.

Box progress was the first subject. Larry has started a new set of boxes. There was a lot of discussion about the "school" boxes-how much is recoverable and what can be done with them. Mitty has picked up all the materials that were available from Conejo and Larry picked up the boxes from Buena.

We will work on trying to recover some complete boxes from the Buena trays. Though there is no chance we can recover any for the schools, it was suggested that the gentleman who donated the pegmatite material for the boxes and ask for 4 boxes for Tehachapi might be glad to have them for his schools even in this condition. He is on the bottom of the list—several years down the road- and might be happy to have these boxes now. Brett will be in touch with him. It was decided that with the quality of these boxes, neither API nor the tri clubs logos will be on them- just a generic rock box identification on the top.

It is thought that many of the boxes Conejo cut out can be recoverable with some judicious re-cutting, though they will be a bit smaller than normal. That will be explored after the present set is finished.

Two more boxes were scheduled to be delivered to Oxnard Schools before the deadline passed, bringing their final count to 4. Four boxes are being scheduled now, two to Somis and two to Pleasant Valley in Camarillo. Schedules showing which schools have been delivered were reviewed.

The "rock report" was given. Local field trips are needed. Mitty is looking into the shale and plans are being made to get the sandstone. The conglomerate is under snow right now. Stephanie reported we are still financially sound. The API fund still has \$1375.26 in it and the SAGE account has \$475.33. We have a new grant from API for \$875 that will be earmarked for school library books. The

Smithsonian book we wanted is unavailable but a Borders Representative; Todd Fisk is working on other options. How to distribute the books was discussed but was tabled till we see what age group the new books best suit.

Teacher Guide still needs review- Brett will print more cover and backs.

Fossil box activities were discussed. We will get in touch with the "Fossils for Fun" group of the CFMS, to ask about their activities.

Problems with the email list were discussed, as discovered by Jim in sending Ventura Show publicity.

Reports on supplemental boxes status were heard.

The Debbie Bereki scholarship application was discussed in depth.

No work days were scheduled.

Field trips were discussed for spring and summer. ~ Donna Knapton

## You know You're a Rockhound When.....

- You justify your mineral expenditures to your spouse as a sound investment for "our" future.
- The plumber asks, "What are you pouring down this drain, concrete?"
- You think roadcuts are built as tourist attractions.
- You buy muriatic acid by the gallon and you don't own a swimming pool.
- Your PC's screen saver features pictures of rocks.
- Someone talks about cleavage, and you don't think about women.
- Your doctor diagnoses hardening of the arteries and you think, "Cool! Calcification!"

## Fossils ... What Are They?

**Definition:** A fossil is the remains or trace of remains of an animal or plant that has been preserved either by chemical replacement or actual preservation over a long period of time. The word is derived from Latin "fodere", meaning to dig.

### Types of Fossil Preservation

**Actual Preservation:** This is the rarest form of preservation, but possible when bacterial action and decay have been arrested. Animals have been preserved without any chemical or mineral alteration in bogs, tar pits or seeps, in tree sap (amber), or frozen in ice.

**Permineralization:** The porous, bone matter of skeletons becomes filled in the soft tissue spaces with mineral matter that has been carried to it while dissolved in the water that percolates through the earth. This mineral material, precipitated out of solution, fills up such bone tissue without changing the original shape or substance.

**Replacement:** This is the most common form of fossilization. In this method the original animal substance, that is the shell or skeleton, is dissolved and replaced by a different type of mineral matter. Silica usually replaces wood in this manner (petrified or opalized). In corals and shells the actual specimens, other than their soft parts, can be replaced in their entirety by quartz, calcium carbonate or various iron minerals. Such fossils are called pseudomorphs of the original animal.

**Distillation or Carbonization:** Volatile elements or organic materials are distilled away, leaving only a residue of carbon to record the actual animal or plant. This is the most common preservation method for plant leaves.

**Molds, Casts, and Imprinting:** Each type is closely related, and their difference in some cases is a matter of semantics. For example, shells embedded in sandstone, or limestone can be dissolved by percolating ground water leaving a perfect cast by the original specimen. Later, percolating ground waters may deposit mineral substances in the mold creating an exact cast of the original animal. **Via Del Air Bulletin 6/08, Rocky Review 3/09**

## Petrified Wood Explained

By Donna Knapton

Larry and I have been very lucky in that since his retirement in 2003, we have been able to take the whole month of October to travel across the United States. We visit family, rock hunt and mostly indulge in my other passion — genealogy. This year one of our stops was in Wise Co. Texas where my great-grandfather is buried. When we entered the beautifully kept pioneer cemetery to take a picture of his headstone, the rockhound side of me popped to the foreground immediately. It seems that about half of the markers in the cemetery were petrified wood. Some were upright, up to four feet sticking out of the ground, some were surrounding the graves and others simply marking the head and foot of the grave.



Wise Co. Texas petrified wood headstones

Clearly, in Wise Co. Texas in the mid 1800s petrified wood was a plentiful commodity! That is great for the rockhound of today—horrible for the genealogist - no dates, no names. Luckily for me Great-Grandpa John had one of the oldest headstones in the cemetery!

It brought home to me the fact that petrified wood is everywhere. It's found in all 50 of the United States as well as all over the world--notably in Argentina, Denmark, Mexico, China, Japan, New Zealand and Indonesia.

When we first moved to Ventura, there was a rock shop in Oxnard, Geffre's, which had a 3 or 4 foot tall and 2 ½ foot wide section of colorful wood outside its front door from a petrified forest near Red Rock Canyon here in California. It is the state gem of Washington. There are a bunch of petrified forests in several different parts of that state. Petrified palm wood is the state fossil of Louisiana.

### How did wood get hard like that?

Our most common question! Petro is the Greek word for rock or stone. Petrify means literally “turn to rock”. For wood to “petrify” you need only 3 things - wood, water and sediments. Some say the process takes about 100 years, others say it takes thousands and it may be that both are true. The process has been duplicated (with a few laboratory processing “helpers”) in less than a week in England.

The process of turning wood into a fossil (the preserved remains or traces of a living thing) generally involves the wood's interaction with water, being moved by a stream, flood or living and dying in a swampy environment. The wood must be quickly buried in sediments in a watery environment, so that it is not exposed to oxygen, where it could rot, as happens to the vast majority of fallen trees. The wood then decomposes very slowly as the mineral-rich water circulates into the tiny cavities and leave behind silica leached from the surrounding sediments. This process sometimes happens cell by cell so that if you look at the petrified remains with a microscope you can tell exactly what kind of tree it was by the identifying cell structure. That, also, enables you to see features such as tree rings, knots and bark in the fully formed fossil.

Petrified materials of more than 80 tree species have been found, the most common being walnut, sycamore, oak, magnolia, chestnut, redwood, maple, persimmon, dogwood and palm. Occasionally, wood will rot away after the surrounding sediments harden into rock, then at a later date this “mold” is filled with another mineral. The new “cast” may or may not have the outside look of the original piece of wood but none of the internal features since they were already gone. The petrified wood takes on the characteristics, like hardness and weight of the new mineral replacement - generally quartz, sometimes calcite, opal or rarely other minerals. That means that though it has quartz's hardness (6 on the Moh's Scale,) it also has its brittleness and can shatter when under stress. That explains why fossil logs are often found in what looks like sawed sections, when they have broken as the layers surrounding them are deformed by pressures and shaken by earthquakes. Sometimes, the wood will have internal cracks caused by the crushing weight of sediments or decay. These are often filled in with crystals of the invading mineral providing beautiful displays, occasionally in amethyst or citrine (purple or yellow quartz).

### How does it get to be that color?

Our second most common question! If wood, or anything else, is replaced with pure quartz, it will appear to be clear to white or gray. So how is the wood in the Petrified Forest National Forest red, blue, black, pink, yellow, gray, purple and

all those other colors when it is quartz? The answer is that the volcanoes near what is now the park were contributing a great amount of mineral-rich ash to the sediments in which the trees were buried. The crystal structure of quartz allows the inclusion of tiny amounts of these dissolved minerals to tuck away in its structure which changes its appearance. Petrified wood is found in the colors available in the water and sediments surrounding it when it was petrified. If the sediments have only white and black minerals, the wood will be white and black. If there is only chromium it will be green. Multiple and bright colors are generally desirable in collecting samples. Here is a list of minerals that cause colors in the woods:



Copper - green/blue  
 Cobalt - green/blue  
 Chromium - green/blue  
 Manganese – pink/orange/black  
 Carbon - black  
 Iron Oxides – red/brown/yellow/orange/black/green  
 Manganese Oxides – black/yellow  
 Silica - white, grey  
 Uranium – brown/green/yellow

Colors from Chinle Formation (left) in Arizona are dazzling. Fieldtrip 2005

### **Petrified National Forest and the Holbrook, Arizona area**

When you think of petrified wood this is the area most people think about. One of the greatest concentrations of petrified wood in the world is found in the Petrified Forest National Park in northeast Arizona. It was set aside in 1906 but didn't become a park until 1962. Logs, as long as 200 feet long and 10 feet in diameter, have been found in the park. About 220 million years ago, four hundred feet of sediment was deposited on this (then) plain by the rivers that originated from the Mogollon Highland volcanic mountain range. About 60 million years ago it started to erode. At this time, only about 125 feet of this Chinle formation has come to the surface. So there are still 275 feet of discoveries awaiting us!

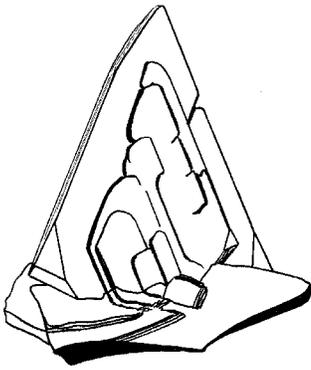
By far the most common tree is *Araucarioxylon arizonicum*, similar to a redwood, with small amounts of two other species, though only nine species in all have been found in the park. To encourage the belief that the trees were washed in from afar is the fact that there are no tree limbs, roots, leaves etc. are preserved in the park. There are however over 200 species of plants identified from other Triassic fossils, such as leaves, pollen, and spores. In fact the value of the park is not measured in the “stars” of this show, the colorful fossil trees. Petrified Forest National Park has one of the best geologic and fossil records of the rare Late Triassic in the world. The plants, the dinosaurs and other animals-- the unique ability to reconstruct a near complete record from the rare upper Triassic when the supercontinent of Pangaea was breaking up—that is the greatest value of this national park.

I started this article with a personal story of petrified wood and I will end it the same way. In 2005, one club that there was going to be a rare chance to get petrified wood from a ranch that bounded the national park near Holbrook, Az. It seems that the government was condemning the ranch and some smaller properties in order to buy it to add to the park and the rancher wanted to make up for some of the revenue he would lose from the government taking the property, Sounded “fishy” but checked out of our members reported to the with the rangers. The park service was more interested in the fossils of the much more rare creatures and plants than it the petrified wood found the ranch. So I present to you pictures of some of the wood from that trip. Please come to our show and see it in person! Maybe you can pick out some cells and tree rings! As a footnote while I was researching this article, I found a comment from the park service about a new dinosaur that was found on newly purchased land adjacent to the Park in 2006.



Field trip in 2005 to the Sell Ranch just outside Holbrook, AZ

## Mineral of the Month Heulandite



**Heulandite crystals  
from Aurangabad, India.**

**Chemical Formula:**  $(Ca,Na,K)_6Al_{10}(Al,Si)Si_29O_{80} \cdot 25H_2O$

**Crystal System:** Monoclinic

**Hardness:** 3 1/2 - 4

**Specific Gravity:** 2.2

**Cleavage:** Perfect in one direction

**Fracture:** Uneven

**Luster:** Glassy; Pearly on cleavage face

**Color:** White, yellowish, brick red, green.

**Streak:** White

**Uses:** None. It is interesting to mineral collectors and scientists.

**Interesting Facts:** Heulandite is a silicate mineral. It belongs to group of minerals that are called zeolites. Other zeolite minerals are natrolite, chabazite and stilbite.

Heulandite crystals are sometimes described as “coffin-shaped” because they look like an old fashioned wooden coffin. Heulandite (and other zeolite minerals) form in round pockets (also called vugs and cavities) in the dark igneous rock, basalt.

**Name:** Heulandite was named by the scientist H.J. Brooke in 1822. This mineral is named after the famous mineral collector and dealer, John Henry Heuland (1778-1856). **Via Mini Miner Publications**

## Snowflakes

How do snowflakes form? It all starts with a speck of dust in the atmosphere. When the conditions are right, water attaches to the surface of the dust particle. This forms a drop of water. When the drop gets heavy enough, it starts to fall through the atmosphere. Imagine, now, that the air it falls through is cold enough to freeze the water. The first shape that forms is the 6-sided or hexagonal prism. As the crystal grows larger, it sprouts arms. Remember that snowflakes are very tiny. They can be blown up and down and around. As they blow around, they can blow through air that has different temperatures. The different temperatures create different features on each arm of the snowflake, like more plates (6-sided crystals) and more arms. By the time the snowflake hits the ground; it has been through many temperature changes and has grown from a simple crystal to a very complicated snowflake! **Via Mini Miner Publications**

## Snowflake Trivia . . .

Most snowflakes are lopsided! Irregular, imperfect snow crystals are most common. Snow can form at any temperature below freezing (32 degrees Fahrenheit; 0 degrees Celsius).

**All of our information about snowflakes comes from The California Institute of Technology website,**  
<http://www.its.caltech.edu/~atomic/snowcrystals/>

This is a wonderful website, filled with fascinating information about snowflakes. It is easy to-read for children and has scientific information for adults, too. **Via Mini Miner Publication**

## Interesting!!!

This is of interest since our February program

## Block Burmese Jade Act of 2008 Takes Effect

The Tom Lantos Block Burmese JADE [Junta’s Anti-Democratic Efforts] Act took full effect on October 26, 2008. No jadeite and rubies for Burmese origin can be imported into the U.S. U.S. Customs issued Phase 1 of its Implementation Plan, containing detailed requirements to import and export non-Burmese rubies and jadeite into and out of the U.S. New Harmonized Tariff System codes must be used for all shipments of non-Burmese

rubies and jadeite, and jewelry containing these gemstones. Importers are required to maintain full records related to purchase, manufacture and shipment of non-Burmese goods for 5 years. Exporters are also required to maintain and file specific records declaring the jadeite and rubies have been subject to a system of verifiable controls from mine to first export, demonstrating that the gemstones were not extracted from Burma. The importation ban does not apply to Burmese jadeite or rubies that are imported for personal use, by the importer. The act does not address U.S. sales of any inventory of Burmese jadeite or rubies currently in the U.S., allowing U.S. jewelers to continue selling their existing inventories already in the U.S. [summary and excerpts from article posted on [www.diamondworld.net](http://www.diamondworld.net), 10/31/08] Via *The Pegmatite*, 3/09

## Upcoming Shows

### **APRIL 3, 4 & 5: BAKERSFIELD, CA**

San Joaquin Valley Lapidary Society  
Kern County Fairgrounds  
1142 South P Street (corner Bell Terrace)  
Hours: Fri. – Sun. 9 a.m. – 5 p.m. daily  
Lewis Helfrich Home (661) 323-2663  
Cell (661) 378-4450  
[lewsrocks@bak.rr.com](mailto:lewsrocks@bak.rr.com)

### **APRIL 4 & 5: MARIPOSA, CA**

Mariposa Gem & Mineral Club  
Mariposa County Fairgrounds  
Highway 49 (So. of Historic Mariposa)  
Hours: Sat. 10-6; Sun. 10-4  
Diane Vereschagin  
(209) 742-7625  
[mineralmuseum@sti.net](mailto:mineralmuseum@sti.net)  
<http://www.thematrixmariposagemmineralclub.info/events.html>

### **\*CFMS SHOW and CONVENTION\***

APRIL 17, 18 & 19, 2009: SAN JOSE  
Santa Clara Valley Gem & Mineral Soc.  
Santa Clara County Fairgrounds  
344 Tully Road, San Jose  
Hours: Fri. 9-5, Sat. 10-5, Sun. 10-5  
Frank Mullaney (408) 265-1422  
[info@scvgms.org](mailto:info@scvgms.org)  
[www.scvgms.org](http://www.scvgms.org)

### **APRIL 18 & 19: LANCASTER, CA**

Antelope Valley Gem & Mineral Club  
Lancaster High School  
44701-32<sup>nd</sup> St. West  
Hours: 9:00 a.m. – 5:00 p.m. daily  
Vivian Watts (760) 373-1309  
[vivlea22@yahoo.com](mailto:vivlea22@yahoo.com)  
[www.geocities.com.av.gem](http://www.geocities.com.av.gem)

### **MAY 1, 2 & 3: BISHOP, CA**

Lone Pine Gem & Mineral Society  
Tri County Fairgrounds, Bishop  
Corner of Sierra St. & Fair Drive  
Fri. 6pm-10pm; Sat 9:30- 4; Sun. 10-3  
Jeff Lines (760) 872-6597  
[franceem@qnet.com](mailto:franceem@qnet.com)

### **MAY 2 & 3: ANAHEIM, CA**

Searchers Gem & Mineral Society  
Brookhurst Community Center  
2271 West Crescent Avenue  
Hours: Sat. 10-5; Sun. 10-4:30  
Jim Williamson (714) 995-9080  
[showchair@searchersrocks.org](mailto:showchair@searchersrocks.org)  
<http://www.searchersrocks.org>

### **MAY 16 & 17: NEWBURY PARK, CA**

Conejo Gem & Mineral Club  
Borchard Park  
190 Reino Road  
Hours: Sat. 9-5; Sun. 10-4  
Robert Sankovich (805) 494-7734  
[rmsorca@adelphia.net](mailto:rmsorca@adelphia.net)  
[www.cgamc.org](http://www.cgamc.org)