

# ***The Sooner Rockologist***

Vol. 65 Number 8

September 2010

## ***Oklahoma Mineral & Gem Society Purpose***

*The purpose shall be an educational relationship among the members for the study of rocks, gems, minerals, fossils, and lapidary techniques, and for the exchange of the results of such studies and classifications with similar societies and the public. (We have fun, too!)*

## ***Membership & Meetings***

*General Membership meetings are held on the third Thursday of each month at 7:00 p.m. (with the exception of June and December when we celebrate with an anniversary picnic in June and a December Christmas party in lieu of regular meetings). Guests are welcome!*

*On the first Monday of each month at 6:00 p.m. (except on holidays), we meet for a Demonstration & Work Night to give members an opportunity to share information and teach each other and assist each other with various personal projects.*

*Meetings and work nights are held at the Will Rogers Garden Exhibition Building, 3400 N.W. 36th Street in Oklahoma City. Annual dues are \$10.00 for a single membership and \$15.00 for husband and wife (children also). A \$1.00 per person initiation fee applies to new members, subject to application and approval.*

The following article is taken from *U. S. Fish and Wildlife Service* web site: <http://www.fws.gov/southwest/refuges/oklahoma/selenite.html>

## **Selenite Crystals At Salt Plains National Wildlife Refuge**

The Salt Plains are a flat expanse of mud, completely devoid of vegetation, located in north central Oklahoma. The name, Salt Plains, is derived from the thin layer of salt that covers the flats. This salt was used by Native American tribes and early pioneers who first settled the area.

The plains are 7 miles in length and approximately 3 miles wide and lie within the boundaries of the Salt Plains National Wildlife Refuge. The plains border the Great Salt Plains Reservoir, constructed by the U.S. Army Corps of Engineers in 1941.

### **What is Selenite, and How are Selenite Crystals Formed?**

Selenite is a crystallized form of gypsum. Chemically, it is a hydrous calcium sulfate. Gypsum is a common mineral that takes on a great variety of crystal forms and shapes. On the Salt Plains, the crystals are formed just below the salt encrusted surface. They are seldom found deeper than 2 feet below the surface.

Crystals take on the characteristics of their environment; the finer the soil, the more clear the crystals. Iron oxide in the soil gives the crystals their chocolate brown color. Because these crystals form in wet soil, sand and clay particles are included within the crystal. These particles often form an "hourglass" shape, found only in this area. Other foreign objects in the soil, such as sticks, rocks, bones, and even cockleburrs, are sometimes included as the crystal forms.

Single crystals, penetration twins, and clusters are the typical crystal shapes most frequently encountered on the refuge. Exceptional individual crystals measuring up to 7 inches long have been found, along with complex combinations weighing as much as 38 pounds.

In certain places on the Salt Plains, gypsum and saline solutions in the soil are sufficiently concentrated to promote crystal growth. When temperature and brine conditions are ideal, the crystals may form very rapidly. When heavy rains or floods bring great quantities of freshwater to the plains, some of the selenite crystals may go back into solution until conditions are right for recrystallization.

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#### *2010 Elected Officers*

##### President

*Donna Davis 405-760-6566*

##### Vice President

*Dale Moore 405-834-0765*

##### Secretary

*Jeannie Manners 405-577-2029*

##### Treasurer

*David Read 405-789-2997*

#### *Board of Directors*

##### *One year term:*

*Paul Cinnamon*

*Darla Wood*

*Elaine Welch*

*John Bode*

##### *Two year term:*

*Bill Chaney*

*Donna Dove*

*Joann Carroll*

#### *Appointed Officers & Committee Chairpersons*

*Anniversary Picnic: Donna Davis*

*Audio/Video: Tom Manners*

*Christmas Party :*

*Property Custodians: John Bode & Paul Cinnamon*

*Education: John Luna*

*Federation Activities: Arlene Burkhalter*

*Field Trips: Debbi Cunningham*

*Historian: Joann Carroll*

*Hospitality: Ambrosia Geffre*

*Librarian: Norma Cinnamon*

*Meeting Display: Doyle McCown  
Billie Marie Nedd*

*Membership: Wanda Manderscheid*

*Programs: Vernon Dorton*

*Parliamentarian: John Bode*

*Publicity Open*

As long as nothing happens to change the mineral content of the waters draining into the Salt Plains, these crystals will continue to form, just as they do today.

## Wildlife Associated with Crystal Digging

The most productive area in which the selenite crystals are found has been divided into sections. Each section is used on a rotating basis to allow time for crystal growth replacement. It is also important to restrict crystal digging to particular sections because many bird species use the area for nesting purposes. Among these species are threatened snowy plovers, endangered interior least terns, and American avocets.

Snowy plovers can be found throughout the crystal digging area. Interior least terns and American avocets are mostly seen along the stream. It is important that these birds not be disturbed. Furthermore, it is illegal to harass or destroy the bird's eggs and nests.

## Observation Tower

For the pleasure of viewing wildlife, an observation tower is located at the entrance of the selenite crystal digging area. The tower is open year round from sunrise to sunset. During fall months, white pelicans and sandhill cranes can be seen in the area, also an occasional whooping crane may be sighted. In winter, several thousand geese can often be seen along the lake shoreline.

## Crystal Digging

Crystal digging is permitted April 1 through October 15, sunrise to sunset.

No special permit is required. Collectors are permitted to remove up to 10 pounds of crystals plus one large cluster for their personal use in any one day.

## How is it Done?

Use a shovel to dig a hole about 2 feet deep and 2 feet across until you reach wet sand. You may feel the shovel break through the crystals as it goes down. This cannot be helped as there is no way of predicting exactly where a bed of crystals is located.

Allow 2 or 3 inches of water to seep in from the bottom.

Use your hand or a container to splash water gently against the sides of the hole. The agitated water will wash the soil away from the crystals.

When you find a crystal formation, continue splashing to wash it free of the supporting sand and clay.

At this stage of the process, the newly exposed crystals are wet and fragile. Use great care in removing them.

After removing crystals from sand, place them where sun and wind will dry them. Egg cartons or other containers may be used for transporting the crystals.

## Safety Precautions

Once in the digging area, please drive your car only on the pre-

**Newsletter Editor:** Tom Manners  
**Scholarship:** John Bode  
**Show 2009:** Open  
**Sunshine:** Donna Davis  
**Telephone:** Open  
**Ways & Means:** Dean & Wanda Manderscheid  
Doyle McCown  
**Workshop:** Open  
**Web Master** Open

*The Sooner Rockologist*  
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*If you have articles of interest that you would like to see printed in The Sooner Rockologist, please be sure to contact the editor.*

*Please submit your contributions no later than the first of each month. Your submissions may be edited for punctuation, clarity and space. If you have an announcement or a trip report to share, please e-mail me or give it to me at the monthly meetings. E-mail attachments in MS Word are appreciated so as to prevent retyping the information. Unless otherwise noted, articles are written and/or contributed by the Editor.*

*If you owe membership dues, please mail your check to:*

**OMGS**  
Attn: Jeannie Manners  
P. O. Box 2084  
Oklahoma City, OK  
73101-2084

scribed lanes of travel.

Due to the white salt surface, it is easy to get sunburned. Sunglasses and protective clothing are recommended.

### Where is Crystal Digging Permitted?

A map is available from refuge headquarters that shows the area selenite crystals are found, along with the roads leading to the area. **Caution:** Driving a car upon the plains can be hazardous. Beneath the surface crust, which is comparatively shallow, lies a quagmire of quicksand. For this reason, visitors are permitted to drive only on the prescribed route.

The gate leading into the crystal digging area, is located six miles west of Jet, Oklahoma, on U.S. Highway 64, then north on a dirt road for three miles, then east one mile to the gate.

The visitor coming from Cherokee, Oklahoma, can reach the gate by going 3 miles south from Fifth Street in Cherokee on U.S. Highway 64, and then 5 miles east on a paved road to the gate.

Crystal digging will be confined to areas posted for such activity. We are pleased to have you as guests on the Salt Plains Selenite Crystal Digging Area. Enjoy your visit.

## Let's Explore with OMGS

By Debbi Cunningham

Being new to the state of Oklahoma, my husband Scott and I decided to explore the unique and beautiful offerings of our adopted state. We could not think of better way to do it than with our new friends in OMGS. As the field trip coordinator, I have set up several interesting trips that will definitely fit the bill for combining adventurous exploring and rock hounding.

October 2 and 3 we will be at the Salt Plains National Wildlife Refuge just west of Jet, OK looking for selenite crystals. The Great Salt Plains has an abundance of selenite crystals, including one 38 pound cluster that was unearthed over 40 years ago. The refuge is the only spot in the world where crystal enthusiasts can dig for hourglass selenite crystals, a rare and fragile form of selenite. It is also the home for the endangered interior least terns, endangered whooping crane and over 300 species of birds.

The area available for public digging is rotated every year to allow crystals to form and to protect the area. Digging for the selenite crystals is hot and tedious work so to avoid the heat we decided that October would work well for our group.

We have rooms on hold at the closest motel, the Cherokee Inn. Double will run \$74.60 including tax. Our plan is to drive out on the 2nd, check in and go straight to the park to dig in the cool of the evening. A group dinner is planned at the Cherokee Steakhouse right next to the motel. Early breakfast the next morning will be at the Cherokee Diner and then on to the park for another round of digging for the perfect

***NOTE:*** We would like to receive input from each and every one of our members on what you would like to see happening during our work night the first Monday of each month, so we can determine who will give instruction in those particular areas of interest. Thank you

**A BIG THANK YOU TO EVERYONE WHO CONTRIBUTED TO THIS MONTH'S NEWSLETTER.**

*Regarding health issues, Donna Davis is on our sunshine committee. She said she hasn't been receiving any notifications lately of folks being ill or having difficulties. In that regard, no news is good news!*

*But if you don't know who to contact to tell about these things, she is the person. She asked that I be sure to remind everyone.*

*Her phone number is 760-6566, and her e-mail is*

*robertdavis3@cox.net.*

*Please be sure to keep her abreast of these issues so our club can help out if needed. Thanks!*

crystal. Check out is late morning but members can still continue digging and drive back to OKC on their own. If you wish to camp or use one of the cabins at the park, these are available with showers and picnic areas.

During the long weekend of Nov 12 - 14 (or 15) we will be taking a long road trip up to the far corners of the panhandle to Black Mesa State Park. Scott has obtained permission from a local Bed and Breakfast (Hoot Owl Ranch) to dig for fossils and rose agates on their property. The Ranch also has caves which we will be allowed to explore and hopefully see some petroglyphs. There are Native American sites on the ranch as well as many different species of wildlife and birds. The rock formation and vegetation are of great beauty.

Nearby Black Mesa State Park features Black Mesa which is the highest point in Oklahoma at 4,973 feet. It is topped with black lava from an extinct volcano. The park offers camping and a few cabins (no plumbing) are available. Although tons of fossilized bones have been found in Cimarron there are still plenty left. Petrified wood, fossils and dinosaur bones may be found during a hike in the park. An excellent view of a fossilized dinosaur footprint makes history come alive. This entire Cimarron river area offers excellent areas of hunting for rose agates and coprolite fossils.

We will be staying at several different locations depending on the number of people attending. The Hoot Owl Ranch has limited rooms but will host our group for dinner both nights at their Steakhouse. The Black Mesa B & B is available for \$45 single and \$70 for a couple. This does not include tax but does include a full country breakfast. Camping at the park is another option. RV hookups are available.

Please join us as we explore the wonderful world of Oklahoma. For more information please call me at 405-585-7259.



## From The President's Desk

**Aloha!**

We had a wonderful time in Hawaii. Robert had a great time swapping stories with some of his old friends. We took a historical tour of Hickam AFB that was very interesting. We went to the beach some and ate very well at the dinners.

I talked to Dave - the foreman - at General Materials and set up a field trip for Saturday, Oct. 23rd. We will start at 8 a.m. and have to leave at noon. Dave said they have a lot of rocks piled up for us.

See you at the General Meeting.

Donna

# OMGS Board Meeting

August 12, 2010

**Members Present:** Dale Moore, Donna Davis, David Read, Joann Carroll, Paul Cinnamon, John Bode, Donna Dove, Bill Chaney, Elaine Welch, Darla Wood, Jeannie Manners.

**Guests Present:** Robert Davis, Oscar Carroll, Norma Cinnamon, Bill Dove, Brenda Hibbler, Tom Manners.

Dale Moore, chairman, brought the meeting to order, with a quorum present.

The minutes are printed in the *Rockologist*. Donna Davis moved and John Bode seconded that the minutes be accepted as printed. Approved.

**Correspondence:** We have received newsletters. We have also received a letter tendering Tom Manners' resignation as editor of the *Rockologist*, effective next January. Donna Davis received a request from a member of an out of state rock club for information regarding rose rock hunting.

**Treasurer's Report:** David Read's report will be filed for future audit.

**New Member Applications:** We have received member applications for Faye Horn, and Denise & Greg Bennett. After discussion, Elaine Welch moved and Jeannie Manners seconded that we accept these new members; motion passed.

**Committee Reports:**

**Field Trip:** General Materials has suggested a tentative date for late October or early November for our next field trip at their site.

**Sunshine Committee:** Vi Holmes fell outside the bead show. Dottie Smith was ill at the bead show. Bill Dove is recovering from kidney stones.

**Nominating Committee:** All officer positions have been filled.

**Old Business:** The club now has business cards. They will be available at local businesses, shows, and through club members.

August Fest is this Sunday, for those who signed up.

The storage shed repairs are still waiting for cooler weather.

Contact Debbi C. to make reservations for the field trips.

**New Business:** We need to include our monthly meeting in the newspaper's list of free activities.

It's time to work on our schedule/contract with the Will Rogers Garden Exhibition Building. A suggestion was made to consider adding more dates, i.e. another work night at least in June, if not all year.

Our largest annual expense is the *Rockologist*. It was suggested that emailing the newsletter would save expenses, but a minimum number of issues must be mailed to get the low postage rate.

It was suggested that we figure out a way to encourage all members to wear their name tag, making it easier for all of us to identify each other. We might include an order form for name tags in the new member packet.

Our next board meeting will be September 9<sup>th</sup>.

Meeting adjourned.

Jeannie Manners

## OMGS General Meeting Minutes

August 19, 2010

Vice President Dale Moore called the meeting to order in Donna Davis' absence, as she is in Hawaii.

We welcome our guests this evening – Anna W., Michelle H. & John D., Faye H., Denise & Greg B., Irene M., Jacob B. and a friend.

**Correspondence:** We have received newsletters from other clubs, and some junk mail. The Tah-lequah show is this weekend. We have a directory update available.

**Kevin Christopher** made a motion to accept the July minutes as published in the *Rockologist*; **Debbi Cunningham** seconded, motion passed.

**David Read** gave the treasurer's report, which will be filed for future audit.

**Displays:** **Jim Williams, Dottie Smith, Bernie Possenreide, Billie Marie Nedd, David Read and Bob Welch** brought items for display.

**New Members:** **Faye Horn and Denise & Greg Bennett** received their new member packets.

#### **Committee Reports**

**Sunshine Committee:** **Chet Hazelwood** is ill. **Ovetta Vermillion** is ill.

**Field Trips:** We're looking at a General Materials field trip in late October. Trips have been set up for **Black Mesa State Park** November 12-14 and the **Salt Plains State Park** October 2-3.

**Show Committee:** The show will be held a year from November, and will need many volunteers. Submit name suggestions for the show; the winner will receive a prize.

**Announcements:** The library has magazines for sale.

The club has business cards now; you may get some from **Joann Carroll**.

Our program this evening will be presented by **David Read**, about tumbling.

Thanks to **Debbi C. and Joann C.** for cookies tonight, and **Lou D.** for helping in the kitchen. **Volunteers for September:** kitchen help – **Lou Dorton and Dale Moore** the ice man; cookies – **Nell Walraven and Faye Horn.**

The door prize provided by **Vernon Dorton**, a rock clock, was won by **Maritel Schafer.**  
Meeting adjourned.

Respectfully,  
**Jeannie Manners**, secretary

## **New Members**



***(Left)*** July new members **Shawn & Maritel Shaefer** received their new member packet from **OMGS President Donna Davis**

***(Right)*** August new members **Faye Horn and Denise & Greg Bennett** received their new member packets from **OMGS Vice President Dale Moore**



# I'M GONNA CLEAN THIS SPECIMEN

By Mel Albright, AFMS Safety Chair, March 1999

Like many rockhounds, I have some mineral samples. Like many rockhounds, the samples need cleaning up. Ugly stuff is on the surfaces of the pretty stuff. Like many rockhounds, my first thought is "I'll soak it in some acid." Like many rockhounds, I may be headed for trouble.

First, the perennial warning - AAA - always add acid. If you are going to dilute acid with water, always add the acid to the water. Why? The heat of solution of acid in water is high. If you add water to acid, it turns to steam and blows acid into the air. Very bad if your hand is still over the acid. Even worse if your head is, also.

Now - about cleaning up. The list of possible acids contains some that YOU AND I should NEVER get near. Hydrofluoric acid (HF) cleans fluorite. BUT, it is so dangerous that we should never consider using it. To quote from the Material Safety Data Sheet (MSDS) for HF: "Vapors may be irritating to skin, eyes, nose and throat. Inhalation of vapors may cause irritation or burns of the respiratory system, pulmonary edema, or lung inflammation. Liquid and vapor cause severe burns that may not be immediately painful or visible. Substance is readily absorbed through the skin, penetrating the skin to attack underlying tissues and bone, Ingestion may cause severe burns to the mouth, throat, and stomach. HF may have adverse effects on kidney function, and may be fatal." The MSDS goes on for some time. What the above does not say is all those bad things occur with VERY low exposures. Convinced? It is NOT something for amateurs to be around. It is something professionals treat with much protective equipment, safety hoods, training, and care and only when required.

Hydrochloric acid (muriatic acid) (swimming pool acid) (HCl) can be used for cleaning. Because it is so common, many people consider it as not too dangerous. WRONG! The HCl MSDS says: "Inhalation of vapors may cause pulmonary edema, circulatory system collapse, damage to upper respiratory system, collapse. Touching it is even worse. With eye goggles and rubber gloves, you can use this material. But you must be very careful with it.

Nitric acid (HNO<sub>3</sub>) is sometimes considered for cleaning since many nitrates are soluble in water. Trouble is that nitric acid is a strong oxidizer. That means it reacts strongly with all organic material - like people. It is also extremely corrosive. Contact with skin or eyes may cause permanent damage. The vapors can be dangerous, too. Most important - it is so reactive that it may well boil when you pour it onto your specimen to be cleaned. Use goggles and rubber gloves if you do try to use this stuff.

Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) is also available for use. Vapors can cause severe irritation of the respiratory system. Liquid can cause severe burns to the skin and eyes. Ingestion may be fatal.

Now a couple of more benign materials. Acetic acid (vinegar) can be used to clean specimens. It is dangerous when in strong solution - corrosive, and can cause serious burns. In the form we get it from the grocery, it is safe for us, but still corrosive.

Oxalic acid is often used to remove iron stains from quartz. Again we often underestimate its danger because it is common. Contact with the skin or eyes may cause severe irritation or burns. Ingestion may be fatal.

In summary - DO NOT USE ANY ACID unless you are trained to do so. If you do, use protective gloves, eye protection, have good ventilation, and remember AAA and that use may generate heat and cause rapid and immediate boiling.

References: Applicable MSDS's

from AMFS Newsletter 3/99

## ***OMGS Calendar***

**Sep 11 - Indian Nations Artifact & Fossil Show, Mabee Center (south entrance), 7777 S. Lewis Ave. Tulsa**

**Sept. 15 - Bead Class @ Alouette 10:30 a.m.**

**Sep 16- General Meeting - Program To Be Announced**

**Sept. 25 - Bead Class @ Artworks 1 p.m**

**Oct 2-3 Great Salt Plains Field Trip - Dig for selenite crystals**

**Oct. 4 - Work night**

**Oct. 14 - OMGS Board of Directors Meeting**

**Oct 21 - General Meeting - Program To Be Announced**

**Oct. 23 - Field Trip to General Materials 8 a.m. - 12 p.m.**

**Nov 12-14 - Black Mesa State Park - Rockhounding for Petrified wood, fossils and rose agate.**

**If you have changes, corrections or additions to the OMGS Calendar, please e-mail me at [trmanners@sbcglobal.net](mailto:trmanners@sbcglobal.net) or call me at (405) 577-2029.**

**For a complete listing of ALL the rock and gem shows around the nation please go to the web site:  
<http://www.rockngem.com/showdates.asp>**

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