# PICK & SHOVEL

Lincoln Gem & Mineral Club Lincoln, Nebraska

www.lincolngemmineralclub.org


## BOARD MEETINGS

All Board meetings are held at 6:30 p.m. at Gere Library, meeting room 1, unless otherwise noted.

**August 25, 2010**

October 6, 2010

November 3, 2010

December 1, 2010

## GENERAL MEETINGS / ACTIVITIES

All activities are held at 7:00 p.m. at the Bethany Park Shelter, unless otherwise noted.

**May 20, 2010**

**May 29-31**
**Field Trip to Hutchinson, KS and Jet, OK**
**(See article on pages 5-6)**

**July 11, 2010**
**Grinding Party (Pioneer Park Nature Center)**

September 16, 2010

October 21, 2010

November 18, 2010

December 12, 2010

Christmas Party

## PRESIDENT'S MESSAGE

Greetings fellow Rockhounds.

I'll keep my message short this month as I have been out of the country and am short on time. I spent a couple of weeks in the southern Yucatán. Jackie and I explored four ruin sights, snorkeled the coral reef, eight Cenotes, and underground caverns. The food and people were wonderful! In the fresh water of Laguna Bacalar, we explored the only living fresh water stromatalites. I'll try to get a program together to present sometime.

I hosted the monthly rock / grinding party and potluck on April 25th. It was a great time to socialize with fellow rockhounds and explore new facets of the hobby.

This weekend is the Midwest Federation meeting in Columbia, Missouri. Hopefully, we will have a delegate or two there.

See page 9 for updates to your Who's Who.

## 2010 Board of Directors

**President**
Charles Wooldridge, 402-416-3233
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**1st Vice-President**
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**Board Member**
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jm24122@windstream.net

**Board Member**
Richard Peterson, 402-489-2996
padr20@yahoo.com

**Board Member**
Edward Ridge, 402-477-8469

## Nominating Committee

| | |
|---|---|
| 3 years | Robert Cropp<br>Judy Cropp |
| 2 years | Vera Lyman<br>Edward Ridge |
| 1 year | John Harrison<br>Aulden Stewart |

## Standing Committees Chairmen

| | |
|---|---|
| Audit | John Harrison, James Marburger, Roger Pabian |
| Christmas Party | Edward Ridge |
| Education / Librarian | Charles Wooldridge / Judy Cropp |
| Field Trips | James Marburger |
| Geology Day Coordinator | Aulden Stewart |
| Grinding Party | Aulden Stewart |
| Historian | Sharon Marburger |
| Membership Record | Edward Ridge |
| MWF Liaison | Vera Lyman |
| Programs | Richard Peterson |
| Property | James Marburger |
| Refreshments / Door Prizes | Mary Pittard |
| Scholarship | Vera Lyman |
| Show—2010 | Charles Wooldridge |
| Swap—2011 | Richard Peterson |
| Youth Activities | Dan Cromer, Kay Jurgens, Vera Lyman |

## Long Range Planning & By-Laws Committee

| | |
|---|---|
| **1 year** | Vera Lyman<br>Roger Pabian |
| **2 years** | Edward Ridge<br>Robert Cropp |
| **3 years** | Charles Wooldridge<br>Phyllis Parks |

Advertising by rock / hobby business or interest is permitted with the approval of the Board of Directors. The rate is set at $15.00 per full page; $7.50 per 1/2 page; $5.00 per 1/3 page; and $3.75 per 1/4 page (minimum) per issue, paid in advance. Ads will be placed throughout the newsletter as space permits.

Subscription to the Pick & Shovel is $10.00 per year for mailed copy.

Membership dues for the Lincoln Gem & Mineral Club are as follows:

Adults (age 16 and over) - $10 per year
Juniors (age 12-16) - $2 per year (with a responsible adult)
Couples - $20
Family membership (with children under age 12 years) - $22 per year

Applications for new membership must be approved by the Board of Directors after applicant attends at least one meeting of the Club. Dues will be payable to the Treasurer following Board approval, with an additional, one-time $5 registration fee.

# PETE'S NOTES

By Richard Peterson

Before feeling confident in going to the field alone, I had to get it into my head that I could safely park my vehicle and leave it unattended for the day. Some degree of trust is required. I usually park near bridges for easy access to the river. Ranches and farmsteads are usually around, but frequently not easily reached on foot. Already tired from a day of collecting, the last thing I wanted was to walk to a distant location only to find no one home. Cell phone coverage can be spotty, and besides, I don't even have a cell phone. Looking back, I perhaps made more of it than there really was, but I was hesitant to trust complete strangers.

Being a relatively healthy 65 plus years, I didn't dwell upon life threatening medical emergencies while in the field. However, with the uneven and sometimes slippery terrain ... were my legs and ankles up to the task? With all the stooping and bending ... would my past lower back problems come back to haunt me? Then there was the matter of river crossings, getting from gravel bar to gravel bar. This would involve walking across uneven stream bottoms against sometimes fast moving water.

First, and most important, make an educated decision as to where to cross. What surface will greet your first step and what might the surface be like where you exit on the other side? Then ask yourself, "What will my footing be while crossing the river?" Your walking stick can help you select an entry point, but your eyes will be your greatest asset.

The shortest route may not be the best choice. A longer wade with potentially firmer footing may be safer, and avoid falling in up to your neck. Gravel, sand, or rocks are the safest walking surfaces; mud and silt the worst. The latter two can be sticky. They can suck off your footwear if you need to quickly take a step to keep your balance. You may encounter mud along your route, in which case you may want to alter your course, or retreat and rethink your crossing options. Starting out in mud is a bad idea.

To be continued ...

HELPFUL TIP:

Gear for your backpack - The following is what I carry in a small back pack when walking the gravel bars. First to be packed is at least a quart of water in a sturdy plastic bottle. You need to keep hydrated when out and about. And the water you carry with you ... don't drink it all in the first couple hours if planning on a six hour outing. If in doubt, carry more water.

Second, don't forget toilet paper. I also carry a Swiss-style pocket knife, sunscreen, bug spray with a high percentage of DEET (more on the little annoyances you may meet in a future Pete's Notes), pocket-sized notebook with a pencil, and a snack (a small bag of peanuts works for me, or your choice). Plus, carry a small, rigid container (like a sandwich Tupperware) with newspaper inside to pack delicate specimens. Hung on the outside of my pack are a couple surveyor flags (plastic flag on a wire) the kind they use to mark buried utility lines. If the weather is uncertain, I may include a small collapsible umbrella. Xerox copies of the pertinent parts of topographic maps are useful if venturing into completely unknown territory. If you are unsure of your route, i.e., maybe having to deal river bank saplings and undergrowth, carry a short machete.

**AND THE WORD IS ...?**

The name of this month's mineral comes from the Greek word for plaster. The colorless transparent variety is called moonstone. The dense granular variety is called alabaster.

Last month's answer is, "What is APATITE?"


Picture from geology.com

Picture from worldofrockhounds.com

## PEBBLE PUPS **SPECIAL** - CONTINUED

Did you know that geologists also study how hard minerals are? Diamonds are the hardest kind of mineral, and talc is the least hard mineral. Table A shows the ten-point hardness scale which uses well-known minerals to compare to.

For over 2000 years, traditions from different groups of people and religions have connected gems, crystals and precious stones to different months of the year. The specific stones haven't always been the same; they sometimes differ for different countries. Table B shows the most commonly recognized birthstones in western countries.

I hope you have enjoyed learning about rocks and the fascinating things on God's earth. As you read this, some rocks were being transformed into the beautiful things that you use every day, like the pencil in your hand or, perhaps, the earrings you're wearing. You could start your very own rock collection as long as you keep on learning more about rocks.

**Table A. 10-point Hardness Scale**

| *Level of hardness* | *Name of the Mineral* |
|---|---|
| 1 | Talc |
| 2 | Gypsum |
| 3 | Calcite |
| 4 | Fluorite |
| 5 | apatite |
| 6 | Orthoclase |
| 7 | Quartz |
| 8 | Topaz |
| 9 | Corundum |
| 10 | Diamond |

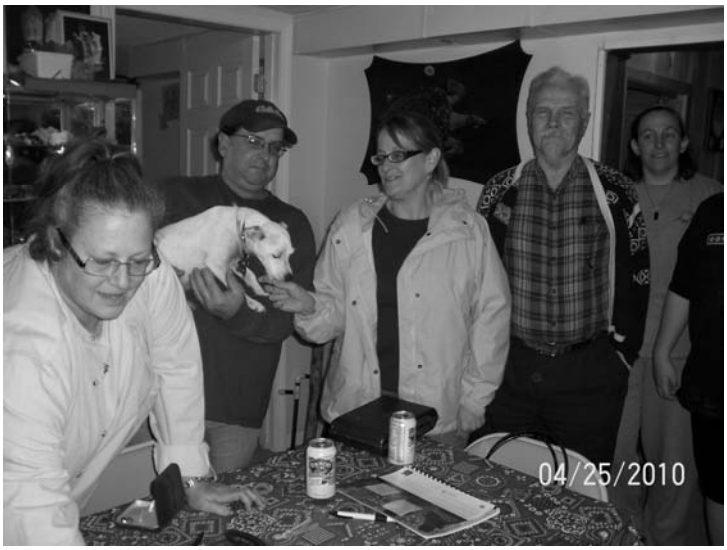
**Table B. Birthstones**

| *Month of the year* | *Gemstone* |
|---|---|
| January | Garnet |
| February | Amethyst |
| March | Aquamarine |
| April | Diamond |
| May | Emerald |
| June | Pearl |
| July | Ruby |
| August | Olivine |
| September | Sapphire |
| October | Opal |
| November | Topaz |
| December | Turquoise |

## APRIL ROCK / GRINDING PARTY

The report from Wooly is that everyone at the gathering on April 25 had a great time. There were people working at faceting, others working on cabochons. Even the library got a little attention as some members worked on further organization.

Due to some technological difficulties, the picture below is the only one available from the April gathering. It looks like a happy crew!




## UPDATES TO WHO'S WHO

Addresses, phone numbers, and other contact information may be obtained at the general meeting. See Secretary Marburger or Treasurer Lyman for the information.

Please correct the following in your Who's Who. Someone had "happy fingers" when typing, and made some incorrect spellings!

Jayne Beer is the correct spelling of her name. Please add daughter, Kelly Beer, to the family.

Brad Nielsen is the correct spelling, as is indicated by his e-mail address.

Welcome to new member Kathy Highstreet! Welcome back to reinstated members James Null; Betty White; Norman Balliet; Brett Jurgens; Nancy and Pat Akins, Sr.; and Terry Anderson with Pebble Pup Leahh Anderson.

## BOARD MEETING MINUTES - CONTINUED

The meeting was adjourned at 7:41 p.m. on a motion by Sharon Marburger, second by Jim Marburger. Motion carried.

## FIELD TRIP TO HUTCHINSON, KANSAS & JET, OKLAHOMA

By Jim Marburger

MEMORIAL DAY WEEKEND, MAY 29 - 31, 2010.

Let me know by May 15th should you choose to join us for this fun-filled adventure. Please RSVP to jm24122@windstream.net or 402.430.6703.

The trip from Lincoln, Nebraska to Hutchinson, Kansas is about 250 miles. Sharon and I plan to head down to Hutchinson on Friday evening (May 28). We will camp overnight at Melody Acres RV Park, 1009 E. Blanchard, Hutchinson, phone 620.665.5048. There is a nightly charge of about $22.50, depending on hook-ups. Motels are available in the area; reservations are on your own.

Saturday morning, May 29, we plan to tour the Kansas Underground Salt Museum located at the corner of Avenue G and Airport Road in Hutchinson. The Museum itself is 650 feet below the visitor's center. The first tour of the day starts at 9:00 a.m. and we should be there a little before that. Joint tickets for the Underground Museum and the Kansas Cosmosphere Space Museum cost $29.00 each for adult and $23.00 child.

The Gallery Tour is a self-guided walking tour of the underground museum, which includes mining, transportation, equipment, and geology exhibits. It also includes an exhibit about Underground Vaults & Storage, plus authentic movie costumes on loan from Sony and Warner Bros. The Dark Ride is a guided tour on a tram into an undeveloped portion of the mine. It includes the opportunity to collect a souvenir piece of salt. The whole tour takes about 1½ hours.

After the Salt mine tour, we will move on to the Kansas Cosmosphere and Space Center, located at 1100 North Plum Street. It is one mile north, 4 miles west, then ½ mile north of the mine. The Cosmosphere grew from a planetarium established on the State Fairgrounds in 1962. The 105,000 square foot facility now houses the largest collection of Russian space artifacts outside of Moscow and the second largest collection of space artifacts in the world, second only to the National Air and Space Museum.

The Cosmosphere has four venues: The Hall of Space Museum, The Justice Planetarium, The Carey Imax Dome Theatre, and Dr. Goddard's Lab, which is a live science presentation. Depending on the amount of time spent in each venue, the Cosmosphere can take 1 - 4 hours to tour.

In the late afternoon, we plan on traveling to Cherokee, Oklahoma. It is about 119 miles or about a 2½ hour drive. We plan to camp at the Cherokee RV Park located at 200 N. Grand Ave., 580.596.3326. The Cherokee Inn is available for those who prefer a motel. It is located at 1720 S. Grand Ave., 580.596.2828. Reservations are required, and you must make your own.

Sunday, May 30 will begin our digging for selenite crystals. We will travel two miles south of Cherokee, then turn left onto a paved county road that leads to the dig area. There is a large sign on the left hand side of the highway advertising the dig area. There is a 10-pound limit on the amount of crystals taken. An individual is allowed one cluster in addition to the 10 pounds. That is a lot of crystals!

Facilities are extremely limited at the dig site. There are public restrooms at the entrance, and that is it. Things that you absolutely must have for a successful dig are: Round nosed shovel, water supply 3 to 5 gallons, a can or sprayer for washing the crystals loose, bucket or flats to put the crystals in, a pronged garden digger will help loosen the crystals, drinking water, a change of clothes, sunscreen, lunch, wide-brimmed hat, rubber boots or grungy sneakers, and a long-tailed shirt to protect the plumber's crack from the sun. A small wagon to carry your water and other items might be a good idea.

Monday, May 31 is your choice of a second day of digging or returning to Lincoln.

Continued on p. 6

# PEBBLE PUPS

Hello Pups! This month's puzzle relates to the field trip planned for Memorial Day Weekend. The trip is to Jet, Oklahoma to dig for selenite crystals. The puzzle contains items you might need and things you might see. Have fun solving. Remember to bring your completed puzzle to the meeting on May 20 to claim your prize.

| | | |
|---|---|---|
| BOOTS | HAT | SAND |
| BUCKET | HOLE | SELENITE |
| CLAW | LAKEBED | SHOVEL |
| CLUSTERS | LUNCH | SPRAYER |
| CRYSTALS | MIRAGE | SUNGLASSES |
| FLATS | OLDSHOES | SUNSCREEN |
| GYPSUM | SALT | WATER |

*Puzzle created by Sharon Marburger.*

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | L | R | R | E | T | A | W | L | M | N | A | Y | R | S | T | L |
| H | A | T | B | X | Y | R | P | U | E | D | J | G | O | D | A | R |
| Z | K | M | M | W | F | J | O | L | D | S | H | O | E | S | P | A |
| R | E | B | H | I | P | B | L | C | H | A | Q | Z | R | M | R | R |
| W | B | F | M | Q | G | E | Z | S | Y | L | E | V | O | H | S | L |
| Q | E | W | H | I | B | P | P | R | D | T | M | K | C | D | E | C |
| J | D | H | C | N | U | L | U | N | Z | P | E | B | K | M | F | J |
| R | P | A | N | Z | C | C | K | J | A | R | C | D | W | W | L | M |
| S | T | M | K | C | K | A | T | B | X | Y | R | P | C | L | A | W |
| E | A | Q | Z | R | E | G | A | R | I | M | A | Q | Z | R | T | M |
| S | J | O | L | D | T | Q | G | E | Z | S | Y | D | N | A | S | B |
| S | K | S | U | N | S | C | R | E | E | N | A | N | Z | C | C | K |
| A | V | R | P | W | H | G | S | G | E | Z | G | E | T | A | W | L |
| L | N | E | L | O | H | P | P | T | B | X | Y | T | A | W | L | M |
| G | Y | T | T | M | K | L | R | M | M | W | P | Y | R | P | U | E |
| N | D | S | P | E | B | C | A | B | H | I | S | T | O | O | B | X |
| U | Z | U | R | C | D | A | Y | M | R | R | U | C | Y | T | B | X |
| S | E | L | E | N | I | T | E | H | S | L | M | S | D | M | M | W |
| W | H | C | R | C | D | W | R | D | E | C | X | R | Z | B | H | I |

# COLLECTING ROCKS - PART 2

*Excerpt taken from an article written by Rachel M. Barker, U.S.G.S.*

*Sedimentary rocks* are formed at the surface of the Earth, either in water or on land. They are layered accumulations of sediments - fragments of rocks, minerals, or animal or plant material. Temperatures and pressures are low at the Earth's surface, and sedimentary rocks show this fact by their appearance and the minerals they contain. Most sedimentary rocks become cemented together by minerals and chemicals or are held together by electrical attraction; some, however, remain loose and unconsolidated. The layers are normally parallel or nearly parallel to the Earth's surface; if they are at high angles to the surface or are twisted or broken, some kind of Earth movement has occurred since the rock was formed. Sedimentary rocks are forming around us all the time. Sand and gravel on beaches or in river bars look like the sandstone and conglomerate they will become. Compacted and dried mud flats harden into shale. Scuba divers who have seen mud and shells settling on the floors of lagoons find it easy to understand how sedimentary rocks form.

Sometimes sedimentary and igneous rocks are subjected to pressures so intense or heat so high that they are completely changed. They become *metamorphic rocks*, which form while deeply buried within the Earth's crust. The process of metamorphism does not melt the rocks, but instead transforms them into denser, more compact rocks. New minerals re created either by rearrangement of mineral components or by reactions with fluids that enter the rocks. Some kinds of metamorphic rocks - granite gneiss and biotite schist are two examples - are strongly banded or foliated. (Foliated means the parallel arrangement of certain mineral grains that gives the rock a striped appearance.) Pressure or temperature can even change previously metamorphosed rocks into new types.

*To be continued next month.*