



PICK & SHOVEL

P.O. Box 5342, Lincoln, Nebraska 68505-0342, www.lincolngemmineralclub.org

The purpose of this corporation shall be to study, promote an interest in, and disseminate knowledge of lapidary and various Earth Sciences including but not necessarily limited to Geology, Paleontology and Mineralogy. It shall be a particular purpose of the corporation to provide education in these fields to its members and the general public, especially to youth and student groups.

UPCOMING EVENTS

2013 Meeting Dates

Board

*Meetings held at
Gere Library*

Wed., September 4

Wed., October 2

Wed., November 6

General

Thurs., September 19

Thurs., October 17

Thurs., November 21

Sunday, December 1
(Christmas Party)

Regular monthly meetings are held at 7:00 p.m. at the Bethany Park Shelter House. Youth activities begin at 6:30 p.m. Summer activities will be announced as they are planned.

General Meeting

Thursday,
September 19, 2013
7:00 p.m.
Program: TBA

Mineral Monkeys

Thursday,
September 19, 2013
6:30 p.m.
Lesson: TBA



August Rock Party

August 17 at 5:00 p.m.

Home of Susy McMahan
5636 Greenwood Street

Susy will serve Tastes and those good old German-Russian sour cream noodles. Bring accompanying dishes for a great pot luck!

There is electricity available, so bring your equipment to set up outside of Susy's shop. If the weather is awful, her shop is air conditioned.

Join in the fun! See you there!



Aug. 24-25: MOUNTAIN HOME, AR. Ozark Earth Science Gem Mineral & Fossil Club's Annual Show and Sale; Van Matre Senior Citizens Center, 1101 Spring Street; Sat. 9-5, Sun. 9-4; Contact: Sharon Waddell, 417.256.8948 (home), 417.274.8712 (cell), www.ozarkearthscience.org.

Aug. 24-25: PEORIA, IL. PAS Geology's Annual Rock and Mineral Show; Grand Hotel, 4400 N. Brandywine Dr.; Sat. 9-5, Sun. 10-5; Contact: Jim Travis, 309.645.3609, boatnick@aol.com.

August Birthdays:

Rowdy Cropp
Karen Messenger
Andrew Tiedje

BOARD OF DIRECTORS

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jm24122@windstream.net

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Board Member

Richard Peterson, 402.489.2996
pdr20@yahoo.com

Board Member

Charles Wooldridge, 402.416.3233
charles.wooldridge@nebraska.gov

If you don't attend club functions,
you are missing out



PRESIDENT'S MESSAGE

by James Marburger, President

What are you looking for from the club or hobby? If you have been an LGMC member for at least 12 months, have you considered calling Richard Peterson to offer your name as nomination for a position on the Board of Directors ("Board")? The Board is the governing body that directs the club. And to those of you who have been on the Board for the past year, why not let it be known that you would like to be President? I want to say that being a Director takes dedication to the club and the hobby, but it is also a lot of fun on many levels. If the club is to survive, your fresh ideas are needed!



If you think being on the Board is more than you can handle, why not offer to chair a committee? The only qualifications are a willingness to share ideas, hold an occasional meeting (when needed), and to have been a member of the club for one year. The incoming President will need your help.

July, the HOT month, provided us with a beautiful, cool, nice, breezy, and sunny day for the Grinding Party at the Pioneers Park Nature Center, Chet Ager Building. We had a lot of club members attend and answer questions for the public visitors. We had over 180 visitors in the four hours that went by quickly with all of the questions on rocks and "how do you do it?". Afterwards, we found a nice picnic area in the park and the breeze kept the critters at bay. Great food and stories were shared, and everyone had a great time

Field trips are happening all over the area and around the Midwest. Plan to bring some items you found this summer to the September meeting for show and tell. The next opportunity for great collecting will be Labor Day weekend at the Crawford, Nebraska Swap. They will have collecting trips and a great swap. If you missed the Kadoka, South Dakota field trip, this would be good opportunity to collect similar items from Nebraska.

The Pick and Shovel is in need of short articles on any facet of the hobby or most anything that is of interest to you. It is a way to share your knowledge with others. We all need to learn and enjoy the hobby. Life is short!

James

REFRESHMENTS SCHEDULE

Sep 19:	Andrew Tiedje, Nancy Akins	Cookies, Meat tray
Oct 17:	Jayne Beer, Wendy Braden	Bar Cookies
Nov 21:	Mark Awakuni-Swetland, Ed Ridge	Undetermined
Dec. 1:	Everyone - Potluck Supper	Hot/Cold Dish
Jan. 25, 2014:	Everyone - Snacks for Mid-Winter Swap (Pizza Supper follows with Anniversary Cake!)	

COMMUNITY OUTREACH

by Karen Messenger and Sharon Marburger

Grinding Party Pioneers Park Nature Center, Chet Ager Building July 14, 2013

It was another warm, but not horrible, bright and shiny Grinding Party Sunday. We had 12 displays, several with two and three displayers, plus various other club members mingling with the guests.

Attendance was good with 123 adults and 62 kids, for a total of 185 people as of 4:00 p.m., with more visitors trickling in.

Thanks to all the faithful displayers for all of their hard work and patience with the public. We really appreciate your involvement.

The 2014 Geology Day is scheduled for March 9 and the 2014 Grinding Party is planned for July 13. Both events run 1-4 p.m. at the Pioneers Park Nature Center, Chet Ager Building. Mark your calendars and start planning your display and demonstration!

Club members attending were Charles Wooldridge; Mark Awakuni-Swetland; Jim & Sharon Marburger; Aulden Stewart; Brian, Jayne, & Corey Beer; Ed & Pat Dvorak; Ed Ridge; Andrew Tiedje; Vera Lyman; Philip Paul & Carolyn Ashmore; Bob & Pat Gritmit; and Charlie & Karen Messenger.

Displays and demonstrations included tumbling, artifacts, beginning rockhounding, how to grind and polish a "window" in a stone, cabochon making with a flat "lap" wheel, general lapidary, wire wrapping, and club information. Thanks to the Messengers for being our hosts.



(Continued on page 4)



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Here's your sign!**

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The Jewelry Connection
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syslo@msn.com

Contact Betty for class information.

Volume 55, Issue 12: August 2013



JOHN HARRISON

by Jim & Sharon Marburger

LGMC member, John Harrison, passed away on Monday, July 15. His wife, Lee, is planning a memorial service to be held at a yet-undetermined date.

John had been a member of LGMC since 1971. He served as President, Audit Chairman, Dealer Chairman, Show Chairman, and was on many other committees, performing an assortment of duties in the club, including being on the Board of Directors. He always shared information and friendship to everyone. His dedication to the hobby and the club earned him the honor of being awarded an LGMC Active Life Membership in 2009.

Many people knew John as one of the owners of J.J.&L. Rocks & Minerals. The shop traveled around the Midwest, Rocky Mountains, and South Central U.S. Many people will be affected by John's passing, and he will be missed.

In addition to the rock hobby, John loved genealogy. He spent many hours in libraries across the country, researching his and Lee's family histories.

See the obituary below for more on John's life.

OBITUARY FROM THE LINCOLN JOURNAL STAR:

John Doane Harrison Jr., 76, of Hickman, passed away Monday, July 15, 2013. Born in Lincoln to John & Madoline (Barker) Harrison. He was a renowned mechanic in Lincoln. He retired from Nebraska National Guard & was a partner in J.J. & L. Rocks and Minerals. John was an active member in the community as an assistant fire chief at Hickman Fire Department, past president of Hickman Old Settlers Association, & past president of Gem & Mineral Club of Lincoln.

Survived by his wife, Eleanore Lee TeSelle; sons, John P. Harrison (Jean) of Lincoln, Ladd M. Harrison (Sue) of Gering, and Eric C. Harrison of Lincoln; daughters, Kelly (James) Gilliland of Eagan, Minn., Tracy Harrison of Arizona, and Stephanie Stanard Antill (Paul) of Hickman; eight grandchildren. Business partner, James (Sharon) Marburger.

Services at a later date. Memorials to the family for future designation. Condolences at wadlowrozanek.com.



John offering advice to Mineral Monkey Corey.

COMMUNITY OUTREACH—CONT'D

(Continued from page 3)



Sharon demonstrates how to cut and polish a "window" in a rock



Al demonstrates cabochon cutting on a flat wheel



Wooly (above), demonstrates rotary barrel tumbling. Wooly always has specimens to hand out to the kids, young or old.

Ed (left) displays a large variety of collectable materials. He, too, usually has specimens to hand out.

(Continued on page 7)

Take a field trip around the world and go no further than Hickman, Nebraska!



J.J. & L. Rocks & Minerals is reducing its inventory. Rough material from trim saw size to yard boulders available. Visit the Rock Yard Sale from 9:00 a.m. to 6:00 p.m. on August 3 & 4, 2013 and August 10 & 11, 2013. Reasonable offers accepted on designated materials. Other items and materials available upon request.



J.J.&L. Rocks & Minerals
330 Locust
402.792.2337



Paid Advertisement

PICNIC IN THE PARK

By Sharon Marburger

Following the Grinding Party, LGMC members met for a picnic in the park. It was a beautiful afternoon, perfect for a grill-out. Jim Marburger lit the charcoal and prepared to cook hamburgers and polish sausages.



Supper is served!



Proof that rock collecting can occur anywhere, at any time.



Good food + Good friends = Good time



Relaxed conversation while waiting for the food to cook.



J J & L Rocks & Minerals

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Hickman, NE 68372

Lee Harrison
Eric Harrison
402.792.2337

330 Locust
Hickman, NE 68372

James Marburger
Sharon Marburger
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jimandjohn@jllrocksandminerals.com
www.jllrocksandminerals.com
jllrocksmin - Ebay Username



Proudly serving
the hobby for
36 years

COMMUNITY OUTREACH—CONT'D

(Continued from page 4)



President Jim offers a suggestion to Andrew who is polishing specimen ends on the Genie

Jim also demonstrates a vibrasonic tumbler. He explained the differences between the rotary and vibrasonic tumblers all afternoon.



Corey demonstrates cabochon cutting while Mom Jayne looks on



Secretary Mark shows young enthusiasts some Native American artifacts and fossils he has collected

Silversmithing classes

The Jewelry Connection Ltd.
Indian Village Shopping Ctr.
13th & Arapahoe, Lincoln

Tuesdays
August 13, 2013
thru
October 1, 2013
7:00 p.m. - 10:00 p.m.

Tuition: \$120 plus \$30 supply deposit

Contact:
Jayne Beer 402-890-3307
Judith Bay 402-423-7058
or e-mail
jbeer60070@aol.com



Ed D. demonstrates wire wrapping while wife Pat looks on

ROCK HOUNDING IMPROVES FAMILY COMMUNICATION

by Charles Wooldridge

Family rock collecting in Nebraska is an underappreciated recreational activity and is more than just fun. Families who rock hound together experience better mental health and improved communication with each other.

All leisure activities contain elements which may be more or less helpful to families. Playing video games or watching television add little value to a family's communication. They are passive, individualized interactions and can have negative results. A parent or parents taking their children to a ball game is usually a more positive experience. In this situation, the family members communicate and interact more, although as spectators, their level of activity is limited.

During family rock collecting, there are a number of positive factors that make it, in my opinion, one of the best shared recreational activities. Rock hounding offers an opportunity for family members to have a positive influence on each other, while offering a chance to be alone without being lonely. Finding a spot to hunt away from the other family members can provide a sense of separateness, while maintaining a sense of others being close by. The development of boundaries is an important element in our psycho social development. Rock collecting reinforces the establishment of personal boundaries. A person, for example, should not cross another person's line of sight while searching for specimens. It is inappropriate in rock hounding to crowd into another person's spot.

Watching someone, especially kids, playing video games, as well as many other leisure activities, I get concerned about the high level of competition. In rock collecting, there can be healthy competition on the size, quality, number, or even smallest specimen found. As the atmosphere of competition focuses on doing the best

you can, rather than beating someone else, valuable lessons are learned.

While people rock collect for a wide range of reasons, increased cooperation and communication can be developed during the hunt. When rock hounding, people, even strangers, tend to share information about locations where rocks are located and what techniques work to find them. Collecting encourages children to gain independence through building their own collections, choosing their own collecting spots, accepting or rejecting advice, and taking responsibility for their own equipment, displays and collections.

Most people find rock hounding to be relaxing. Locations in nature have been recognized through the ages as areas for reflection and tranquility. It is often a welcome relief to get away from the fast pace of urban life and the day-to-day problems that work, school, or even home life brings to us all.

This year, make a plan to take your family rock hounding. You deserve it!



The Beer Family Rock Hunts Together

Photo by Jim Marburger

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Why do Some Minerals Change Color When You Turn Them?

by Dr. Bill Cordua, University of Wisconsin-River Falls
Leaverite News 2009,
Vol. 34, #6, p. 3

There are minerals that change colors when you turn them in the light. Perhaps they go from dusky yellow to purple as in cordierite, or purple to amber as in axinite or blue to violet to green as in tanzanite. These minerals show the amazing property of pleochroism.

Pleochroism ("many colors") is a well-known property to geologists. Normally, to see this property, rocks are sliced and ground down to 0.03 mm "thick" and placed under a microscope that uses polarized light. Polarized light is light filtered so that it vibrates in only one direction, rather than many different ways. The polarized light interacts with thin grains of various minerals producing different optical effects, including pleochroism, which help geologists to identify the minerals. For example, various amphiboles have strongly pleochroic properties in thin section.

But looking down a microscope and seeing a property in carefully filtered light is one thing. Seeing it in

a big chunk of a mineral in regular sunlight is another. How does this happen?

Light and minerals interact in lots of ways. The interactions are complex enough that using filtered polarized light makes them manageable, which is why geologists use the microscopes that they do. Light always slows down when passing through a mineral. Sometimes it is split into 2 or 3 different rays by the particular arrangement of atoms in a mineral's structure. This is best seen in "Iceland Spar" calcite, where images seen through the calcite are doubled due to the fact that calcite splits light into 2 rays. Lots of minerals do this, but in most minerals the separation of the images is so slight you can't see it. But the separation of the images in calcite is unusually large. By the way, the rays that come out of a mineral like calcite are also polarized by the mineral's structure. In pleochroic minerals, these 2 or 3 light rays also differ in the wavelengths of colors they absorb as they move in different paths through the mineral's atomic structure. Thus when you turn the mineral, you will see different colors in different directions. Axinite, tanzanite and cordierite have unusually strong differences in the ways they absorb light, hence the pleochroism shows up even in large samples. That being said, then, how do these

minerals show this effect in sunlight, rather than requiring a fancy microscope with carefully filtered light?

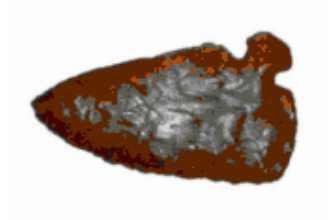
It turns out that polarized light can be made in lots of ways. Light can be polarized by bouncing off a surface, such as a pond or a road surface (this is the glare your polarized car windshield cuts down). It can be polarized by passing through plastic films made of long polymers oriented in the same direction. This makes the Polaroid you get in sunglasses and camera filters. But, most importantly here, light is partially polarized by passing through the air. If you take Polaroid sunglasses and look at the sky (NOT AT THE SUN) and rotate the glasses around when looking north, south, east and west, you'll see the sky lightens and darkens in different directions. It darkens in the places where some of the light polarized by the air can't get through the filter of your sunglasses. With the right mineral, pleochroism can be seen in the polarized light that reaches us every day. Our observant ancestors knew this fact. Strongly pleochroic minerals such as cordierite were used as compasses before the age of GPS. Since this effect is noticeable even on cloudy days, it is useable for navigation in all kinds of weather, when stars are not visible.

As published in the LOESS Bulletin, July 2013

9th Annual Nebraska Artifact Show

Saturday, August 17, 2013
9:00 a.m. to 5:00 p.m.
Seward County Fairgrounds – Harvest Hall
Seward, Nebraska

*Worldclass Displays of Prehistoric Stone Artifacts
from the Great Plains Region*



Adults \$3
Children 12 & Under Free

Bring the Family!
Concessions Available



*Over 100 Display Tables
Free of Charge*

*Professional
Identification of
Artifacts & Bone*

Atlatl Demonstration



*Presentation:
"The Search for Engineer
Cantonment" by
John (Rob) Bozell, NSHS
1:30 p.m.*

*Flint Knapping
Demonstration*



The Nebraska Artifact Show
is a non-commercial show sponsored by
the Nebraska Archaeological Society.
No buying or selling of antiquities is permitted.

For More Information Contact

Dick Eckles - 402-225-2525 - eckleswr@gmail.com
Kevin Hammond - 402-423-5700 - hammond100@windstream.net
Exhibitor forms at: <http://sites.google.com/site/webnas>



STANDING COMMITTEES CHAIRMEN

Audit	Ed Dvorak James Marburger Roger Pittard
Christmas Party	Edward Ridge
Education / Librarian	Charles Wooldridge Judy Leick-Cropp
Facebook	Andrew Tiedje
Field Trips	James Marburger
Geology Day Coordinator	Aulden Stewart
Grinding Party	Aulden Stewart
Historian	Sharon Marburger
Legislative Liaison	Robert Cropp
Membership Record	Edward Ridge
MWF Liaison	Vera Lyman
Programs	Jayne Beer/Judy Cropp
Property	James Marburger
Refreshments / Door Prizes	Mary Pittard
Scholarship	Vera Lyman
Show—2014	Charles Wooldridge
Swap—2014	Richard Peterson
Website	Jim Atkins
Youth Activities	Andrew Tiedje Susy McMahan Kay Jurgens

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AND MEMBERSHIP INFORMATION**

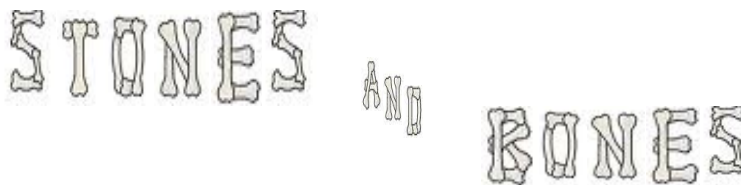
Advertising by rock / hobby business or interest is permitted with the approval of the Board of Directors. Contact the Editor with your proposed ad. The rate is set at \$20.00 per full page; \$10.00 per 1/2 page; \$5.00 per 1/4 page (minimum) per issue, paid in advance to the Club treasurer. Ads will be placed throughout the newsletter as space permits.

Subscription to the Pick & Shovel is \$15.00 per year for mailed copy.

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

Adults (age 16 and over) - \$15 per year or \$25 per couple (within the same household)
Juniors - \$2 per year (with a responsible adult)

All new memberships must be accompanied by a written application. Prospective members must gain Board approval and attend one regular meeting before being approved for membership.



**LONG RANGE PLANNING &
BY-LAWS COMMITTEE**

Richard Peterson, Chairman

1 year:	Charles Wooldridge Sharon Marburger
2 years:	Vera Lyman Ed Dvorak
3 years:	Edward Ridge Robert Cropp

NOMINATING COMMITTEE

Richard Peterson, Chairman

1 year:	Robert Cropp Judy Leick-Cropp
2 years:	Brad Nielsen Roger Pittard
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2014 SHOW COMMITTEE

Chairman:	Charles Wooldridge
Breakfast:	Vera Lyman
Dealers:	Charles Wooldridge
Demonstrators:	Richard Peterson
Displays:	Jayne Beer, Ed Ridge
Event Center Liaison:	Vera Lyman
Finance & Ticket Sales:	Vera Lyman
Floor Chairman:	Ed Dvorak
Forms:	Sharon Marburger
LGMC Club Booth:	Robert Gruit
Nebraska Gem Dig:	Rowdy Cropp
Plants:	Ed Ridge
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PICK & SHOVEL

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