

# CALENDAR

**Regular Meeting** Saturday, May 22, 1999, 7:30 PM, Bethany Park Shelter, Near Cotner & Vine Streets. Annual Dessert Supper and **Silent Auction**. Club will furnish Coffee and Iced Tea, plates, cups and plastic cutlery. Each Family bring a Dessert to share and a **Special Rock** to put on the Silent Auction. Special summer activities will be discussed.

**Youth:** Meet with adults at 7:30 for Silent Auction & Dessert Supper only.

June 17, 19, & 26--See President's Message - call for further information!

July 25, Sunday 1 to 4 PM Grinding Party at Pioneer Park Nature Center Activities Center

**Next Regular Meeting:** Saturday, September 25 at Nebraska Center, 33<sup>rd</sup> & Holdrege, 7:30 Nominating Committee Report for the year 2000 Officers and your nominations from the floor.

**NEXT LGMC SHOW - MARCH 25-26, 2000, Pershing Auditorium**  
(Our 42<sup>nd</sup> Annual Show)

## Nearby Shows to Visit

May 15-16	SWAP	Central Missouri Mineral, Fossil, & Gem Society, Fairgrounds, Rolla, Missouri. (Editor has further information - call)
May 22	AUCTION	Hemmingford, Nebraska
June 12-13	SWAP	G.I. Earth Science Society, Fonner Park, on the grass
June 12	AUCTION	Museum Auction & Sale, Houghton Michigan-See April P&S
Oct. 2-3	SHOW	Nebr. Gem & Mineral Society, 44 <sup>th</sup> annual, Omaha, NE

Check Lapidary Journal and Rock & Gem Calendars if you are traveling to other areas and wish to see any Rockhound related activities or shops. Have a good summer and bring back lots of rocks to talk about or work with this fall.

## 1999 REGIONAL SHOW SCHEDULE

### EASTERN FEDERATION

August 6-8

New Carrollton, Maryland

### CALIFORNIA FEDERATION

June, 18-20

Turlock, California

### SOUTH CENTRAL FEDERATION

August 21-22

Bossier, Louisiana

### NORTHWEST FEDERATION

June 18-20

Hillsboro, Oregon

### SOUTHEAST FEDERATION /AFMS COMBINED

July 9-11

Nashville, Tennessee

### ROCKY MOUNTAIN FEDERATION

November 19-20

Tucson, Arizona

### MIDWEST FEDERATION

April 10-11

Columbus, Ohio



### President's Message for February Lewis Elrod

Another task completed. The committee assignments have been mailed as promised in the February Newsletter. This was quite a task as I added some items and really attempted to fill all of the spots prior to mailing. There are a few vacancies still and there will also be some corrections to be made during the year. Of particular importance to the success of the publicity campaign we are attempting will be the addition of as many email addresses as possible. Look over the listings and provide the requested information as quickly as possible. Much of the information will also be posted on our new web site.

We announced, in the February Newsletter, that our web site is now up and running. It is already proving popular. Even before the newsletter was delivered the word was spreading and we had several hundred "hits" on the site. As we polish up the site and begin to post it to the search engines I believe that it will be a very popular site on the Internet. [www.amfed.org](http://www.amfed.org)

As more and more of us gain access to the Internet and to email we will find communication much easier and faster. Last month I told of sending a document to an insurance company and the rapidity with which it was processed. This month we have an example that is much "closer to home." Ruby Lingelbach, President of the Rocky Mountain Federation tells in the February issue of the *Rocky Mountain Federation News* of her use of email to send a request for a room in the Tucson Convention Center to hold an "unofficial Rocky Mountain Federation meeting." She sent the email, finished another project in about an hour and checked to see if she had any mail and—there it was. The approval of the meeting room. The center office is, of course, in Tucson, Arizona but Ruby was in Stillwater, Oklahoma. Can you imagine how much longer it would have taken had she

written a letter, addressed an envelope, placed a stamp on it, took it to the Post Office and then waited for days (weeks?) for a reply. This modern day is great.

Now, for another application for our hobby for this new, to many of us, thing. Let's say we learn that an old collecting location will be available for a very limited time for collecting due to construction work being done. To attempt to call or write every person who might be interested would be extremely time consuming and might well not be possible. By the use of email a message could be sent to a large number of persons by simply typing the message one time and then sending it to the entire group at one time. Sounds great, doesn't it? It is, I use it daily and it is a wonderful time saver. Marty Hart, our AFMS Webmaster, and I often send each other several email messages per day. To call each other this many times would interrupt our other work and cause much wasting of time. We can now read the mail when it is convenient, post a quick reply if needed and go on to other matters. I would really hate to do without it and look forward to the day when even more of us have this tool.

One thing that I have learned to look forward to is the many bulletins, which I am receiving. We have some really great people in this hobby. Their talents are displayed in the bulletin articles, which reflect the skills of the persons who are pursuing their interests in faceting, capping, silversmithing, etc. and then writing articles for the enjoyment and education of the rest of us. I am convinced that many of the rest of us are also capable of writing such articles and encourage you to give it a try. I believe you will find that you, as did I, will learn to enjoy this part of the hobby as well.

I am writing this column as I prepare to leave for New Mexico and Arizona on business. This will be my first visit to Tucson and it is with a great deal of eagerness that I await the trip. Next month I will tell of my visits with Bob Keller (Bob's Rock Shop on the Internet), Bob Jones (Editor of *Rock and Gem Magazine*) and others who I am to meet while there. Keller is working toward coming to our convention and demonstrating rockhounding on the

Internet and Jones is to write a two-page article on our Convention and Show for the June issue of the magazine.

Speaking of the convention, in the next few days the show packets will be mailed to all AFMS officers, Committee Chairs and to all Regional Federation officers. The Regional Federation Newsletters will then notify all member clubs of the details. The entire packet will also be posted on the Internet within a few days as well.

## Editor's Column

Update on the timeliness of delivery of the *AFMS Newsletter* - We cannot do much about USPS distribution/delivery. The January issue was late, in part, because Dan had been updating the circulation list and sent the labels to Idaho later than usual. Our printer is the Standard Journal Newspapers in Rexburg, Idaho. They seem to do a good, timely job at getting it out.

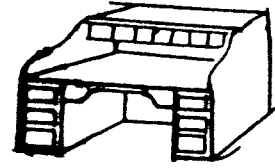
I hope you got the February issue much earlier. The labels were mailed on the 18th and the paste-up on the 20th. In the future, we are planning on mailing, and putting online, by the 15th. Please heed the input deadline of the 10th of the month preceding publication.

Dan McLennan has been "working hard for all of us" on updating the mailing list. He has written about it in the Exec. Officers' column. This is a Major task. Now that the list is in much better shape than ever before, he can mail the labels earlier.

When someone says, "I've been working real hard for you", what does that really mean? In this case, Dan has written about going through all of the Regional Directories to get info for the three in each club who are to receive the *AFMS Newsletter* - a monumental task! Also, whatever other paper, or knowledge at hand, for the annual update of Officers, committees, and others who are to receive a copy. To give one example of what he didn't write, he looks at (reads) every club bulletin he receives, looking to see if someone passed away, changed office, etc. If so,

Balance of this page from MWF Newsletter may be found on page 4, column 2. Hope that you have enjoyed this bit of American Federation reprint at much as I have. They do a lot for 'Rockhounds'

## From The President's Desk



Hello LGMC Members:

I want to give a special "Thank You" to Vera Lyman for preparing the beautiful refreshment trays for the April Scholarship Meeting.

We had a Scholarship Presentation for 1999 to Mr. Chin-Fong Yang who gave a brief introduction to his project for this summer. He may give a final report after he completes his work for his Doctorate from University of Nebraska at Lincoln.

We presented the 'Rockhound of the Year' for 1998 Award to Paul Brauch for his many years of assistance at our annual shows.

We also presented a Gift Certificate on behalf of the club and the 1999 Show Committee to David Heffelbower so that he can replace his 'Precious Opal' grinding equipment that was destroyed in the recent loss by fire at his home.

For the summer months put these dates on your calendars and we'll keep you informed of club plans for them **if you let us know that you are interested:**

June 17, 19 and 26

July 25

August--special event --date to be established later.

Saturday, June 19, LGMC Members are invited to a special visit at Pat Akins 'Rainbow Stone' at 3200 NW 12<sup>th</sup> St, near the Airport Best Western. (Tons more than the huge petrified logs etc. that were at our show.) Pat will be open at 10 AM to dusk. We can go to nearby McDonald's or other facilities for a lunch break.

Saturday, June 26 we are planning a Field Trip, President BD & Past Presidents Picnic. We plan to go to some spots near Weeping Water for fossils until about 2 or 3 PM, then to Wooly's acreage at 21013 A Street, Eagle, NE. for a picnic. Date subject to change for weather or unseen things. Call Ed or another officer for further details. (As of Friday June 17, 1949, at 7:23 PM, -old times- I was born --and things have never been the same since.)

Also in mid June or earlier Roger Pabian will have a field trip that we are invited to share. Call for details.

Sunday, July 25, 1 to 4 PM, our annual 'Grinding Party' at Pioneer Park. I hope to see many of you there to show visitors what we do for our hobby.

We may have a 'Summer Swap Meet' in August that we will let you know about.

Hope to see you all at the May Meeting which will be our Dessert Supper and **SILENT AUCTION** at Bethany Park Shelter--the last meeting until September. If you can't make it, have a good summer and we'll see you in the fall!!

Edward Ridge

**New Members for your 1999 Who's Who**

**Please Welcome** new members who have attended a regular meeting, paid dues & registration fee and been approved as active club members:

Dick Caster	James Parks Mull
5740 Rokeby Road	1224 Glenbrook Ave., #111
Lincoln, NE 68516	Oakdale, MN 55128
423-7472	

**Also Welcome** these persons who have filed applications, paid dues and been approved for membership upon attending one regular meeting.

Eric Fritzsich	Larry Hutsell
3114 No.97th St.	606 SW 16 <sup>th</sup>
Omaha, NE 68134	Blue Springs, MO 64016
(402)572-7910	(816)229-3118

Please add these names to your 1999 copy of "Who's Who" that have been added since February:

Maribeth Milner	Becky & Adam Cooperrider-youth members
5151 Vine St.,#608	
Lincoln, NE 68504	Waverly, NE 68462

**Club & Show News:**

Recently many of our thoughts have been with Dave & Billie who lost their home of many years to fire. They report that things are moving very slowly but they are planning to try and restore. No physical help is needed at this time but may be when they are through sorting things out. They may be reached at 475-3000.

Lincoln Gem & Mineral Club really appreciated the many 'Thank You' notes received from our 1999 Retail Dealers letting us know how much they enjoy doing our show, that they have hopes of coming back soon, that they really appreciated the Sunday Morning Brunch, and that they particularly enjoy the 'comraderie' at our show. In return we 'Thank' our Dealers for helping to make our annual show the exciting event that it has been for over 41 years. Lots of hard work by some of the members and lots of friends contribute to the shows success.

continued from MWF Newsletter clip Page 2

EDITOR'S COLUMN...continued:

who is the Editor, or President, to contact to get the right mailing for that club? When you consider that that attitude and devotion is applied to all aspects of his job, you begin to understand just a little of "what the Federation does for me".

We cannot emphasize too much, even if you get tired of seeing it, that each of you, in all clubs, offices, committees, have a responsibility to notify Dan of your correct title, address, etc. Please do your part. We, the AFMS, want every rockhound to be a participant in our wonderful hobby.

Visit our Web-site, [www.amfed.org](http://www.amfed.org)! I've sent some things from the *AFMS Newsletter*. Marty and I have been talking about some possibilities of what the content should be, and how to present it. Please, we want feedback. What is it that you like, dislike? What would you add, delete?



LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING - April 24, 1999  
Bethany Park Shelter House, 7:30 P.M.

President called the Meeting to order.  
21 Members present; new member Maribeth Milner, and guest Chin-Fong Yang  
February Minutes & Treasurer's report as printed in Pick & Shovel;  
and March Treasurer's report as per hand-out, were all approved.

NO OLD BUSINESS

NEW BUSINESS: Presentation of "Rockhound Of The Year" to Paul Brauch (1998)

Presentation of \$300. Gift Certificate for new machine to Dave & Billie Heffelbower. Their entire home was destroyed by fire.

SHOW: Phyllis P. gave brief report on Show, however not all bills in yet, but will realize a good profit.

FIELD TRIPS: Roger Pabian indicated he would lead a trip on Nemaha in SE Nebraska after mid May.

Also discussion of having a Swap on some Parking lot with permission.

May 22 - Dessert Supper at Bethany Park Shelter with Silent Auction

June 26 - President's Picnic

July 25 - Sunday 1 to 4 P.M. Grinding Party at Pioneer Park

Deadline for May Pick & Shovel copy and Board Meeting is May 5 @ 7:00 P.M. at Kinkos.

SCHOLARSHIP PRESENTATION: In the absence of Dr. Smith, Scholarship Chairperson, Susan Taylor asked Roger Pabian to make the presentation. Roger presented Chin-Fong Yang with the \$ 700. scholarship (\$350. from Club and matched by UNL with \$350.) Mr. Yang gave an excellent presentation of his studies and also a copy of his Masters Thesis from Oklahoma State.

After presentation, all enjoyed refreshments of meat/cheese/ crackers along with coffee , tea & punch.

Respectfully submitted,

*Vera Lyman*

Vera Lyman, Secretary

**LGMC Treasurer's Report for April 1999**

NBC Checking Balance 3-31-99 **\$6379.85**

Receipts:

1999 Membership Dues	30.00	
Youth at '99 Show	1.02	
Miscellaneous Show Income	<u>112.68</u>	143.70
Matured Certificate of Deposit (Show Funds)		4000.00

Payments:

UNL Scholarship Deposit for year 2000	500.00	
April Board Meeting	20.00	
April Pick & Shovel printing	37.10	
April Meeting Refreshments	51.50	
Prepayment Oct. & Dec. Meeting Space	120.00	
Sub.Rock & Minerals for UNL Geology Dept.	118.40	
Stamps for May & Sept. Pick & Shovel	66.00	
Misc. Copies & Postage	32.72	
Friday Set-up Refreshments Show	<u>274.92</u>	1220.64
1999 Show Expenses paid in April		5103.51
Return Pre-Show Funds to Money Mkt. Acct.		<u>2500.00</u>

NBC Checking Balance 4-30-99

\$1699.40

LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - April 7, 1999  
Kinkos Conference Rm. 48th & Vine 7:00 P.M.

President called the Meeting to order with 5 Board Members and the following visitors present: Jerry Moore, Francis Belohlavy, Roger Pabian, and Susie McMahan.

The Minutes and Treasurer's report were approved as presented.

BILLS: Club bills approved with motion by Vera L., 2nd by Grant B. Show bills approved with motion by Marcia H., 2nd by Vera L. Both motions carried.

NEW BUSINESS:

Question of Club renewing subscription for "Rocks & Minerals" magazine for Love Library. (1 yr = \$74. 2 yrs = \$118.40

Motion by Marcia Hamilton to renew for 2 years at greater saving. 2nd by Phyllis Parks. Carried.

Show Certificate of Deposit matures on 4/10.

Motion by Phyllis Parks to return \$1500. to Money Market; \$500. to UNL Foundation for Year 2000 Scholarship; remainder to checking until all Show bills are paid. 2nd by Vera Lyman. Carried.

SCHOLARSHIP RECIPIENT: Chosen unanimously by the Board was Chin-Fong Yang. He is a student of Roger Pabian and doing his research in Nebraska. Scholarship presentation at April Meeting ( \$700.)

40th ANNIVERSARY PINS: During Show, approval by 6 Board members to reduce the price (Pins=\$4. Patches=\$3) to \$2.00 each. Then reduce to Club asset.

NE ACADEMY OF SCIENCES: No scholarships have been awarded since 1980's Table info until next meeting and then have Club action.

No Delegate for MWF Show/Convention.

Fire destroyed home of Dave & Billie Heffelbower. Motion by Phyllis P. 2nd by Marcia H. to donate \$300. to purchase new machine. (\$ 150. from Show Fund- \$ 150. from Club) Presentation at April Meeting. (form of Gift Certificate)

Refreshments of meat/cheese platter, coffee & punch at April Meeting.

May Meeting - Desserts shared by members and Silent Auction.

Respectfully submitted,

*Vera Lyman*  
Vera Lyman, Secretary

LGMC Clubmembers:

We never have room to print all of the many communications that we receive during the year but we do try to share some notes and have them available for you to inquire about and share.

This month we have the Spring 1999 letter from UN State Museum giving us a lot of activities throughout the state that we can participate in as well as information about staff and new employees Look for it at the May Dessert Supper at Bethany Park.

Also the Newsletters from Midwest Federation and American Federation have many things of interest including news of Federation Shows, registration blanks, news of national significance and much more.

## Ruby, July's Birthstone

Ruby celebrates the birthday of those born in the Month of July. The ancient *lapidaries* (books that described the physical and metaphysical aspects of gems) spend considerable time with ruby. "Those be rubies, fairy favors." a line from Shakespeare's *Midsummer Night's Dream* was the theme for our 40<sup>th</sup> anniversary show in 1998. Shakespeare mentioned rubies several times in his various writings and you are referred to the classic reference by George Frederick Kunz for the remainder of these. So not only is ruby the stone to celebrate July's births but it is also the stone to celebrate the 40<sup>th</sup> anniversary of special occasions.

Fine rubies are probably one of the world's rarest gems. If you were to walk into any jewelry store, the jeweler could probably show you many fine diamonds but probably only a few fine rubies.

**Rubies** are a red to orange-red to purple-red variety of the mineral **corundum**, aluminum oxide ( $\text{Al}_2\text{O}_3$ ). Ruby and its companion variety of corundum, **sapphire**, are very hard---9 on **Mohs** scale of 10. Only diamonds and a few manufactured abrasives such as boron carbide and silicon carbide are harder.

Ruby crystallizes in the **hexagonal** system---well-formed crystals often appear to be tiny barrels. There are three crystallographic axes of equal length that intersect one another at 120° and a fourth longer axis that is perpendicular to the other three. Ruby as all other varieties of corundum is very tough. It shows no cleavage but the crystals sometimes exhibit a basal parting. Rubies are fairly dense---the

specific gravity ranges from 3.95 to 4.10 but most is almost exactly 4.00.

Because of its high specific gravity rubies that come from alluvial sources such as Sri Lanka and Burma are collected in a deep cone-like separator. Gravel and water are placed in the cone and the cone is rotated. Minerals with low specific gravity such as quartz, mica and calcite wash out of the cone as it is rotated. The miner will finish with an aggregate of higher specific gravity minerals near the vertex of the cone. If the miner is fortunate, a few of these stones might prove to be rubies. Red spinel may also be included in these heavy minerals but they are easily separated from ruby by both physical and optical properties.

Since ruby crystallizes in the hexagonal system it has two **refractive indexes**, the numerical measures of how much a beam of light is refracted (bent) and slowed down when it enters the crystal. These range from the **extraordinary ray** (the one that varies) of 1.762 on the low end to the **ordinary ray** (the one that remains fixed) of 1.770 on the high end. Since the stone has only one index of refraction that remains fixed (the optic axis), it is said to be **uniaxial**. Since the lower refractive index varies upward to meet the higher, the stone is said to be **negative**. Ruby is said to be uniaxial negative.

Rubies may be **dichroic**---that is, one wavelength of light is transmitted along a crystallographic axis while another wavelength may be absorbed along the same axis. A small instrument called a dichroscope is needed to detect dichroism. A dichroscope may be made with a pair of calcite prisms that are oriented to take advantage of the strong birefringence (numerical differences in refractive indexes) of this mineral. One

of the calcite prisms will transmit a certain wavelength and the other will absorb it. Thus, the viewer sees two different colors in the two windows of the dichroscope. A simple dichroscope can be constructed by orienting two pieces of polaroid material perpendicular to one another. The Polaroid separates the two beams just like the calcite prisms do.

Color is the most important character of a ruby when it comes to a jeweler properly representing the stone. All rubies must be shades of red, orange-red, or purple red. There is no such thing as a pink ruby. By definition pink corundum is a sapphire. There are standard color sets such as those manufactured by Pantone™ that will guide the jeweler or hobbyist in determining where rubies leave off and where sapphires begin so far as color is concerned. I utilize such a set in my gem stone classes at UN-L. It quickly clears up any distinctions for the students.

There are not many stones that can be confused with a ruby (spinel has a much lower RI and tourmaline is strongly doubly refractive) and the biggest problem the jeweler or hobbyist usually faces with these stones is separating the natural from the synthetic stone. In earlier times all of the synthetic rubies were made by the flux fusion process where powdered aluminum was passed through a very hot gas flame. The Aluminum melted and combined with Oxygen to produce synthetic corundum. These stones all had curved growth lines, gas bubbles and flecks of aluminum powder in them. They were easy to spot. Such is not the case now. There are some synthetic (now called created) rubies that are grown in bombs or crucibles of various kinds that are much more difficult to detect. Diffusion

treatment may impart a red to colorless or pale corundum.

Kashan™ rubies are a flux grown form---as I write this I am looking at an example with veils, step-like and rhomboid crystal inclusions. Douros™ synthetic rubies are produced in Greece and have been marketed only since about 1995. I recently obtained a piece of Chakravorty™ ruby with only the word of the dealer telling me that it contains about 15% natural ruby.

The pages of the last decade of *Gems and Gemology* and its 15 year Index (1996) show many kinds of synthetic rubies, as well as other gems, have come onto the market. Gemological Institute of America now offers a course on detecting natural, synthetic and treated gems. Where curved growth lines and bubbles once sufficed to separate a natural from a synthetic ruby, new technologies have now forced the jeweler and the hobbyist to learn a whole new set of skills to determine the nature of the stone.

#### References for further reading.

- Koivula, J. L., Kammerling, R. C., and Fritsch, E., (Editors) 1994. Douros synthetic rubies. *Gems and Gemology*, Spring 1994, p. 57.
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- Kunz, G. F., 1916. *Shakespeare and precious stones...*J.B. Lippincot Co., Philadelphia, 100 p.
- McClure, S. F., Kammerling, R. C., and Fritsch, E., 1993. Update on Diffusion-Treated Corundum: Red and Other Colors. *Gems and Gemology*, v. 29, Spring, p. 16-28.
- Schumann, W., 1977. *Gemstones of the World*. Sterling Publishing Co., Inc., New York, 256 p.
- Stockton, C. M., (Editor), 1996. *Gems and Gemology, Fifteen Year Index, 1981-1985*. Gemological Institute of America, Santa Monica and Carlsbad, California, 50 p.

Submitted by: Roger K. Pabian

## 1999 ELECTED OFFICERS

<b>President</b>	Edward Ridge, 2507 A Street.	Lincoln, NE 68502	477-8469
<b>1st Vice Pres.</b>	Kenneth Doe, 925 El Avado Avenue	Lincoln, NE 68504	466-4877
<b>2nd Vice Pres.</b>	Jim Atkins, 1333 So. 15 St., Apt. 1	Lincoln, NE 68502	438-2434
<b>Secretary:</b>	Vera Lyman, 420 N. 56th St.	Lincoln, NE 68504	464-6089
<b>Treasurer:</b>	Phyllis Parks, 2435 So. 19th St.	Lincoln, NE 68502	476-6798
<b>Board Member</b>	Marcia Eddy-Hamilton, 4903 Hillside St.	Lincoln, NE 68506	489-0716
<b>Board Member</b>	Kay Jurgens, 14421 Danvers St.	Waverly, NE 68462	786-2756
<b>Board Member</b>	Grant Bennett, 721 No. 58th St.	Lincoln, NE 68505	466-5377
<b>Board Member</b>	David Heffelbower, 1819 Washington St.	Lincoln, NE 68502	475-4713

## Nominating Committee

<b>3 years</b>	<b>Jerry Moore</b>
	<b>Kevin Schwartzman</b>
<b>2 year:</b>	Roger Pabian
	Bill Rockel
<b>1 year:</b>	Shirley Roockel
	Kenneth Doe

**Chairman:** *Immediate Past President*

## Long Range Planning & By-Laws Committee

<b>3 years</b>	<b>Charles Wooldridge, Chair</b>
	<b>Kevin Schwartzman</b>
<b>2 Year:</b>	David Heffelbower
	Jim Parks
<b>1 Year:</b>	Vera Lyman
	Roger Pabian

## Standing Committees

<b>Membership:</b>	Shirley Rockel	<b>Programs:</b>	David Heffelbower
<b>Education:</b>	Roger Pabian	<b>MWF Liaison:</b>	Vera Lyman
<b>Field Trips:</b>	Jerry Moore, Coordinator	<b>Scholarship:</b>	Susan Taylor
<b>Historian:</b>		<b>Christmas Party</b>	
<b>Hospitality:</b>	Eddie "Lightning" Ridge	<b>1999 Show:</b>	Jim Marburger
<b>Study Coordinator:?</b>		<b>2000 Show:</b>	John Harrison
<b>Housing/Property:</b>	Jim Parks	<b>2001 Show:</b>	
<b>Youth Activities:</b>	Kay Jurgens	<b>1999 Swap:</b>	David Heffelbower
<b>Librarian:</b>	Roger Pabian	<b>2000 Swap:</b>	

**Gem Palette Correspondent:**

**Geology Day Coordinator:** *2nd Vice President*

**L. G. M. C. Web Page Address :**

<http://nesen.unl.edu/lgmc/lgmc.html>

## Your PICK & SHOVEL Staff

<b>Publisher:</b>	Lincoln Gem & Mineral Club, Inc., P.O. Box 5342, Lincoln, NE 68505-0342
<b>Editor:</b>	Phyllis Parks 476-6798
<b>Business Reporter:</b>	Vera Lyman 464-6089
<b>Circulation:</b>	Jim Parks 476-6798

The *PICK & SHOVEL* is the official publication of the Lincoln Gem & Mineral Club, Lincoln, Nebraska. Articles and items appearing within may be reproduced in other club bulletins, provided proper credit is given to the *PICK & SHOVEL* and the author and that a reprint of the bulletin is sent to the editor of the *PICK & SHOVEL*.

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, particularly youth and student groups.

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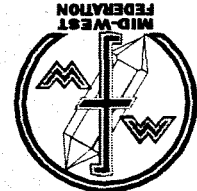
Advertising by rock-hobby business or interest is permitted with the approval of the Board. The rate now set at \$15.00 per full page; \$7.50 per 1/2 page; \$5.00 per 1/3 page; and \$3.75 per 1/4 page(min) per issue, paid in advance. These ads will be placed through the bulletin as space permits.

Subscription to the *PICK & SHOVEL* are \$10.00 per year mailed.

Dues to Lincoln Gem & Mineral Club are as follows:

Adult	(ages 16 and over)	\$10.00/year
Junior	(ages 12 to 16)	\$2.00/year
Family Membership	(Husband, wife, resident children under age 16)	\$22.00/year

New memberships must be approved by the Board, after the applicant attends at least one meeting of the club and pays the above dues plus a \$5.00 registration fee.



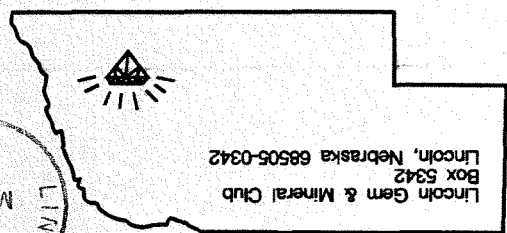
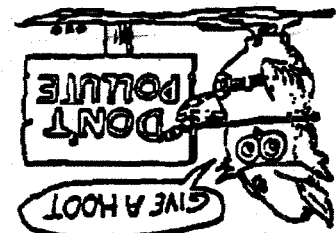
Associated with



Susy McMahan  
5636 Greenwood St.  
Lincoln, NE 68507

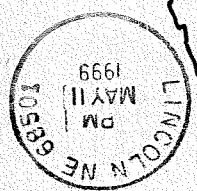
Help Eliminate Litter Please

# H. E. L. P.



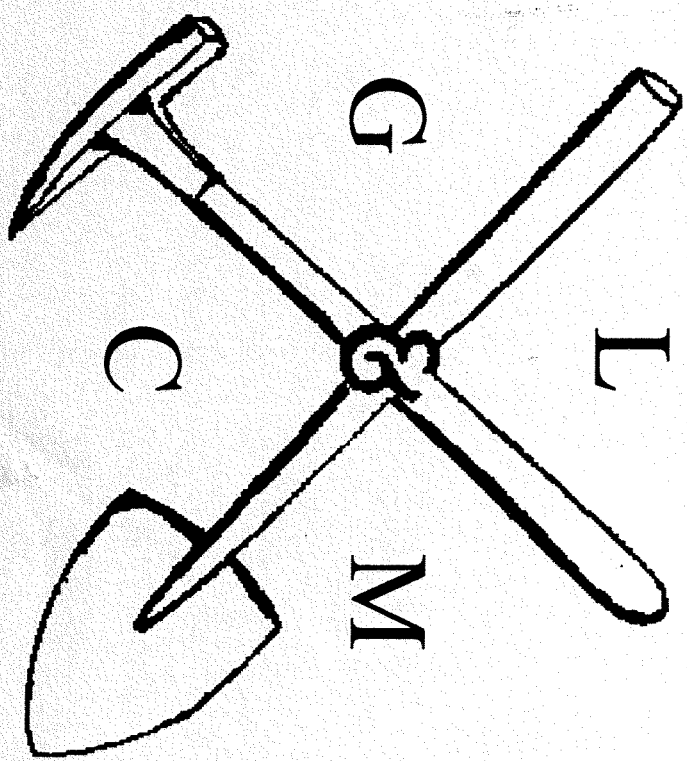
Lincoln Gem & Mineral Club  
Box 5342  
Lincoln, Nebraska 68505-0342

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