

CALENDAR



Regular Meeting Saturday April 25, 7:30 PM,
Nebraska Center Cont. Ed.
33rd & Holdrege Streets.

Program "Opals" Video & Lecture,
C. David Heffelbower

Youth Meeting 7:00 PM, Bring your SHOW
acquisitions

May Meeting **CHANGE OF DATE-**
Saturday, May 16th at Antelope Park
Shelter, 7:30 PM, our usual Spring
Dessert Supper with Coffee and the
dessert of your choice. Plates, cups &
plastic cutlery will be provided.

June 27-Watch May news of **PICNIC** at Wooly's new
acreage!

July 26-Sunday-Grinding Party, Pioneer Park 1 to 4

WELCOME and add to your 1998 Who's Who-
Mrs. Orma Paulson--488-2030
422 Dale Drive, 68510

President's Message

Congratulations on another great show made possible by a lot of hard work from committee chairs, club members, and dealers. If you care to or would like to chair a committee for next year's show please feel free to let me or next year's show chairman, Jim Marburger, know at this time.

If any member has an idea for a field trip or would like to lead a field trip now is the time to get the stone rolling as there are only two meetings left before summer break.

Think Spring!

Jerry

NOTE TO ALL CLUB MEMBERS SEE PAGE 7- INFORMATION OF INTEREST

**NEXT LGMC SHOW - MARCH 27-28, 1999, Pershing Auditorium
(Our 41st Annual Show)**

Nearby Shows to Visit

April 18-19	SHOW	Northeast NE Rock & Mineral Soc., Norfolk, NE
April 19	SHOW	Cedar Falls, IA, Blackhawk Gem & Mineral Club
April 24-26	SHOW	Wichita, KS, Wichita Gem & Mineral Society
April 25-26	SHOW	Roseville, MN, Anoka G & M Society, HarMar Mall
May 16-17	SWAP	Rolla, MO., Central Missouri Regional-Fairgrounds
June 6-7	SHOW	Casper, Wyo., Natrona County Rockhounds
June 13-14	STATE SWAP	Grand Island, NE-GI Earth Science Club
Oct. 3-4	SHOW	Omaha, NE, Nebraska Gem & Mineral Club
Oct. 17-18	SHOW	Grand Island, NE, GI Earth Science Club

1998 REGIONAL SHOW SCHEDULE

EASTERN FEDERATION
November 6-8

Stamford Connecticut

CALIFORNIA FEDERATION
July 3-5

Monterey, California

SOUTH CENTRAL FEDERATION
February 28 and March 1

Corpus Christi, Texas

NORTHWEST FEDERATION
June 12-14

Billings, Montana

SOUTHEAST FEDERATION
November 14-15

Charleston, South Carolina

ROCKY MOUNTAIN FEDERATION
October 23-25

Tulsa, Oklahoma

MIDWEST FEDERATION
/ **AFMS Combined**
August 11-16

Houghton, Michigan

YOUTH NOTES

The show was a great success, THANKS to the excellent help of :

- Anthony Bannister
- Daniel Bannister
- Danny Cromer
- Janelle Jurgens
- Emily Rieur
- Rennie Rieur
- Emerson Wooldridge

Also present was junior member

- Talia Schwartzman

We'll give Talia a few years to grow before we expect her to help us!

Anthony, Daniel, Danny, Janelle, and Emerson worked both Saturday and Sunday. We could not have run the show without them! Thanks also to our friends who helped out, including member Steve Sims.

Special thanks go to Bill and Betty White, who always bring the "dinosaur wheel", which all the children love, and who always remember us with donations. Thanks also to Louellen Montgomery for her donation of boxed specimens and to Roger Pabian, who supports us every year. Marie and Susan Taylor have also have donations for us- thank you!!!!

This year the Juniors ran the gem dig, rock race, 25 cent spin wheel, and 50 cent spin wheel. The spin wheels were not as busy this year, but the gem dig was busy most of the time.

A HUGE thanks to Ken Doe and Debbie Wooldridge for their help in packing up. Their help at the end of a long day was greatly appreciated.

Let's start planning for the '99 show! We want to end the century with a big bang!

CLUB NOTES

Our Club Founder, Irl Everett, with his wife and chief assistant Lois at his side, made a very special presentation on Saturday morning just before the 40th Annual Show opened it's doors. Honorees were Jim Parks and Roger Pabian with 'Founder's Awards' and a recap of part of their many achievements and services to LGMC. Congratulations and Much Appreciation Gentlemen. You will always be a hard act to follow, each in your own way. Also, 'Evie' Thanks for continuing your recognition of special people with many years of service to 'our' club.

ANNUAL MEETING- STATE SHOW

As one of 4 LGMC delegates to the Nebraska Association of Earth Science Clubs Inc. I found it most interesting that we now have ten clubs registered in the group with a total of 378 members. Seven clubs had delegates at the meeting for roll call. The State's elected officers hope to have a new directory by mid summer if all club's comply and get listings to President Randy Fry. Many years ago LGMC Members voted that no listings would be shared with any except our own club members so we should bring this to the membership, hopefully in April, before we submit our list.

(If any LGMC member wishes to withhold address or phone number please let your secretary or treasurer know at once.)

Other business at the meeting consisted of changing the word 'shall' to 'may' in last year's revisions to Standing Rules, regarding the Silent Auction at State Shows and funds over \$200 and the Host Club.

Randy Fry was reelected President, Ed Anderson Vice President and Mrs. Donna Farlow was elected Secretary-Treasurer. All terms to begin January 1999.

\$200. from this year's Silent Auction was presented by the Host Club. Delegates-Grant Bennett, David Heffelbower, Phyllis Parks, Charles Wooldridge.

Thank you! 40th annual show participants.

Thanks are due to those of you who worked dilligently in the production of our 40th Annual Show. The displays from both inside and outside the club membership were superb. Our guests thoroughly enjoyed their visit to Lincoln and their fine minerals, trilobites, petrified wood, and historic materials provided many excellent opportunities for show participants and show visitors. Thank you, again to all of the show participants.

A particularly gratifying moment came about when a young woman who is taking a class on Shakespeare at UN-L returned the second day of the show with several of her class mates so that they might all share in the historical Shakespeare Era display. Thank you, Linda and Lynn, for all of your efforts.

The ruby theme worked well as Linda and Lynn's display demonstrated. The fine examples of rubies from Bob Fixter of Sartor-Hamann Jewelers were especially useful and beautiful and Bob's program on rubies was well received. Bill and Betty white provided a nice case of rubies and ruby substitutes.

Dealers and demonstrators were arranged by Charles Wooldridge and they were probably the finest selection we have had in several years. Their wares were widely varied and of high quality. Several dealers were with us for the first time and one for the 33rd or 34th time. Wooly also filled in as floor manager at the last moment and handled the job very smoothly.

Susy McMahan and Grant Bennett are to be commended for their work with the ruby raffle. The lovely pendant was furnished by Sartor-Hamann Jewelers and Steven Sims was the lucky winner.

Petrified wood was a pretty heavy contender for top honors with the large logs from Pat Akins and the outstanding polished rounds from Norman Balliet. These were

well supplemented by materials from the dealers and demonstrators.

Jim Hurlbut's programs on diamond mining and micromount minerals were outstanding and the display he brought of Colorado minerals was superb. Bruce Stinemetz and Louellen Montgomery both provided some excellent examples of crystals including a National Trophy case. Minerals were truly a star of the show.

Brett and Kay Jurgens helped in the program area and they introduced the speakers to the program attendees.

The display of exceptionally fine trilobites came from Bill Rushlau of Omaha. Bill has collected fossils for about as long as I have and he has provided some very fine research material (crinoids) to me in past years. *A paper is now in preparation.*

The Cretaceous fossils from Jefferson and Thayer counties and lapidary materials from the Little Blue and North Loup rivers were furnished by Donovan Harriss of Fairbury. Donovan has also furnished many superb research specimens to the university.

Many of us missed the Saturday evening post show dinner. Because of new regulations and catering requirements, we were unable to find a licensed caterer who would handle a group smaller than 200. The Rockels worked very hard to try to arrange for something and I was sorry to see them put in so much effort for no return. Thank you, Shirley and Bill.

Eddie Ridge did an outstanding job of arranging the physical plant to handle so many displays. There were only a few feet of table space (less than one table length) that were not covered with some kind of display and the exhibitors had a very easy time moving in and out of the show.

The junior activities area was very busy during the entire show. There were many activities and many of the youth who

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visited and participated were able to take away some very nice samples of rocks, minerals, and fossils. Thank you, Kay Jurgens.

Awards and recognitions were very capably handled by Kevin and Kathy Schwartman and the attractive name tags were one of their productions. They also made sure that the exhibitors received their certificates of appreciation.

Betty White, Louellen Montgomery, and Bruce Stinemetz were all active in the NAOESCI silent auction. They conducted a lot of sales and their efforts netted a nice financial boost for the state association. Thank you to the many people who participated as donors of and bidders on the many lots that were offered. There were many fine lots that changed hands.

Dave Nixon from Trailside Museum at Crawford again provided a very fine demonstration of flint napping and an educational booth. His hands testify that he truly shed a lot of blood to put on a show.

Francis Belohlavy set up a very fine demonstration of internet capabilities as they apply to the rock hound. Thanks are also due to Aliant Communications (NAVIX) and INFOLINC Computers for furnishing the computer and hookups. Jerry Moore and Mildred Belohlavy assisted and they showed many of the services that are available on the internet.

Bill and Betty White arranged for the many fine featured displays that graced the show this year. Their conscientious labors arranged for some super displays and their expenses were well below the projected figure, proving the value of dedication and knowledge.

Vera Lyman performed many of the important tasks that are required to publicize an event of this scope. The many letters that went to local businesses take many hours to generate and seeing that the post cards are all

properly addressed is the kind of sustained effort that brings people thru the gate. Vera also spent much of the time with ticket sales and arranged for Harry Stewart, show security.

Very special thanks are due to Pete Crawford for both bringing show hardware to the show on Friday and returning it to the stash on Sunday evening. Each day takes two separate trips and the show could not go on without this kind of help.

Show finances are so very capably handled by Phyllis Parks and it is this unseen contribution that makes it all work. The job is a lot more than writing checks. It involves seeing that many of the legal ramifications are also attended to such as insurance, taxes, and public safety and seeing that all of these things fit within the budget and are paid from the proper accounts. Thank you, Phyllis!

Many thanks are due to the members, dealers, demonstrators and exhibitors who all helped with our 40th Anniversary Show. I am sure that I have missed sharing some of the credit with someone who is unintentionally not listed above. The oversight is mine, but be assured, your help has been very deeply appreciated. Thank you!

Roger K. Pabian
1998 Show Chair

Diamond, April's Birthstone

By Roger K. Pabian

Diamonds are probably the most recent gem material to be commonly used for gem purposes. Diamonds have been known throughout antiquity but their unique hardness, luster, and brilliance was practically unknown until the 15th Century. The reason for this is that diamond is the hardest substance known. When it was discovered that one diamond could be used to shape another, the gem diamond industry was born. This happened in the 15th Century.

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Mohs hardness scale ranges from 1 to 10 with talc (no. 1) being the softest and diamond (no. 10) being the hardest. The scale is relative but hardnesses 1 thru 9 increase at a nearly linear rate. If the scale were not relative, diamond would be of about 42 hardness compared to corundum (no. 9). Diamond is that much harder than the next one down.

Diamond crystallizes in the isometric system and octahedral crystals (two pyramids attached base to base) are the ones most commonly known. Isometric crystals all have 4 axes of three fold symmetry (minimal symmetry) and quite a few different isometric crystal forms such as the cube, pyritohedron, dodecahedron, etc., are known to exist. All of these have the minimal 4 axes of three fold symmetry; that is, there are 4 axes about which the same patterns will be seen in a 360° rotation of the crystal.

If you are looking at a cube, an octahedron, a pyritohedron, dodecahedron, or whatever, the crystal faces are obvious. What you don't see but what exist inside that symmetry package are the faces of the other crystal forms. A cube contains the dodecahedral faces or the octahedral faces. Because of the atomic structure, there will be a very slight difference in the hardnesses of the crystal faces. The dodecahedral faces in the diamond crystal are just ever so slightly softer than the other faces---that observation makes it possible to shape diamonds. When this observation was made, the gem diamond industry was actually born.

Diamond has several other unique properties that make it highly suitable for gems. In addition to being hard, it is fairly tough, but a sharp blow can cause a stone to cleave along one of diamonds perfect cleavage planes.

Diamond has a fairly high refractive index. This provides an appearance of very

high relief and it accounts for the adamantine to almost sub-metallic luster of the stone. The other unique feature of diamond is a high dispersion (the ability of a stone to break white light up into its component colors). This causes the facets of the stone to appear to be many different colors.

Shaping of diamonds can not be done with an ordinary hobby or many commercial faceting units. These kinds of units have laps that are 6 to 8 inches in diameter and they have a 1/30 to 1/15 horsepower motor. A unit for shaping diamonds has a 24 to 30 inch lap and a 1 to 2.5 horsepower motor. This goes back to diamond's absolute hardness compared to its' relative hardness. It's that much harder than corundum which can be easily done on the hobby units.

Shaping diamonds also generates a lot of heat. A neutral oil is the coolant the lapidary must use here---water would simply boil away or too much would be required to keep your eye on your work. This means that wax dops will not do for shaping diamonds---the heat would cause the wax to melt. The lapidary must use a mechanical dop to hold the stone when working with diamond. A different kind of transfer block is needed---one that transfers from the stone from "side to side" rather than from crown to pavilion.

Before a rough diamond is shaped into a gem it undergoes several processes. The stone is cleaved or sawed (nowadays, mostly the latter) into useable pieces. The size and style of cut are selected and the stone goes through a process called 'bruting' in which the approximate shape of stone is acquired. The bruting process is usually done with coarse diamond powder on a lap rather than on a grinding wheel. Grinding wheels may have irregular little spots of hardness that could cause a cleavage to develop. The lapping process introduces fewer 'shocks' into the system.

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If you ever observe a lapidary working on a diamond after it has gone through the bruting process, you will note that the lap has several surfaces ranging from a dull, freshly charged (with diamond powder) surface to a very highly reflective surface (where the diamond powder is well worn down). All of the faceting operation is done on one lap and the lapidary may be working several stones at the same time.

As the coarse diamond powder on the lap wears down, the surface becomes fine enough for polishing operations. The diamond particles on the old polishing surface eventually become too worn to do their job and the old polishing surface becomes the new grinding surface. Thus, the lapidary can be simultaneously grinding and polishing several stones on the same lap at the same time.

Something as precious as a fine diamond is apt to draw a lot of imitations and fraudulent misrepresentations. Historically, the first of these were probably rhinestones---a clear, leaded glass that has a very high refractive index. These showed up in the courts of Europe in the 18th Century and their production remained a secret for some time. High refractive index glass tends to be very soft because of the excess lead; it is also very dense, its specific gravity being somewhat higher than that of diamond.

Foilbacks, glass of a lower refractive index but with a highly reflective foil or metallic surface attached to the pavilion of the stone have also been used for diamond substitutes. These foilbacks usually have a somewhat lower dispersion than diamonds. A magnifier will help separate them as the glass body will contain bubbles and swirl marks and the conchoidal fracture of the glass will show near the girdle of the stone and at the facet junctions.

Mineral substitutes for diamonds may be a bit more difficult to detect. A piece of colorless quartz that is properly shaped and

proportions may appear more brilliant than an improperly proportioned diamond because all of the light entering it thru the table exits thru the table ---complete internal reflection. Quartz will never have the high dispersion of a diamond. Quartz will alternately lighten and darken in a polariscope.

Demantoid garnet is probably the most reliable mineral substitute. It has a very high refractive index and dispersion. Magnification will show inclusions that differ considerably from those found in diamonds.

Synthetic gem diamonds have been available for several years and many lower quality natural stones have been enhanced by removing inclusions with lasers and filling the cavities with high refractive index resins. Gemological Institute of America has published several charts with colored illustrations that will enable the student to detect synthetic or enhanced stones. The reader is referred to these sources

References

- Anon., 1995. Identification of Filled Diamonds. Gemological Institute of America. Wall chart with 49 colored illustrations and text.
- Anon., 1996. A Chart for the Separation of Natural and Synthetic Diamonds. Gemological Institute of America. Wall Chart with 60 colored illustrations and text.
- Kammerling, R. C., et al., 1994. An update on filled diamonds: Identification and durability. *Gems & Gemology*, v. 30, no. 3, p. 142-177
- Koivula, J. J. et al, 1989. The characteristics and identification of filled diamonds. *Gems & Gemology*, v. 25, no. 2, p. 68-83
- McClure, S. F., and Kammerling, R. C., 1995. A visual guide to the identification of filled diamonds. *Gems & Gemology*, v. 31, no. 2, p. 114-119.
- Schumann, W., 1977. *Gemstones of the World*. Sterling Publishing Co., New York, 256 p.
- Shipley, R. M., 1971. *Dictionary of Gems and Gemology*, 6th Ed., Gemological Institute of America, Los Angeles, California, 230 p.

LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING - March 28, 1998
Antelope Park 7:30 P.M.

"AFTER-SHOW" Meeting with coffee & cookies!

Two guests & 15 members in attendance.

Minutes as printed in March Pick & Shovel approved with motion by Francis B., 2nd by Dave H. Carried.

Treasurer's report as printed with motion by Shirley R. 2nd by Kay J. Carried.

"SHOW BUSINESS":

Chairman, Roger Pabian gave a detailed report and indicated a favorable gain. Gate proceeds were not quite as high as some previous years, but our expenses were down. Not all bills were in yet, but hope to have complete report by April Meeting.

Phyllis Parks reported on the NAOESCI Delegates Meeting. Officers were elected. Same Pres. & Vice Pres. However, Margaret Hohnholt retired from Sec-Treas. position & Donna Farlow was elected. Charles Wooldridge was also elected to the Board of Directors.

We did not join their insurance program because we maintain our own.

SUMMER ACTIVITIES:

Picnic at "Woolys" - June 28 Grinding Party - July 26 @ Pioneer Pk

Possible Field Trip in Sept or Oct. to Midland College (Florence L.)

Jim Atkins won "Door Prize". Meeting adjourned.

Respectfully Submitted,

Vera Lyman

Vera Lyman, Secretary

SPECIAL NOTES TO LGMC MEMBERS

Any club members who did not pick up their HOST RIBBON and name tag for our 40th Annual Show might wish to do so at the April Meeting. Kevin & Kathy designed such a nice one for the show so we kept those that were left over. We plan to insert them in the May Pick & Shovel for those who are out of town or couldn't make the show.

We seem to have an oversupply of the 40th Anniversary 'RUBY' pins & patches which we used to promote the show. If you haven't purchased any before please get them soon. Shirley, Roger and Phyllis have them available.

The Club received a complete packet of informational and registration forms from the 1998 AFMS/MWF Convention & Field Trips Show to be held in Houghton, Michigan on August 11 to 16. See it at club meetings or arrange for a copy if you are planning to make the show. They have a full page of Field Trips and many other fine things on the schedule.

Need some lapidary equipment or have an interest in collectibles? Next Sunday, April 19, 1998, there will be an Auction at 4521 Meredith starting at noon. This is the estate of Nelda Oliver Kickland, former club member who was very active. Her son, Jim Oliver called and mentioned a saw with 12 inch blade, lapidary units on stands, a 14 inch vibro lap and other items. There is quite a list in the Sunday, April 12 Lincoln Journal Star placed by Jan Kaufman, Auctioneer.

LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - March 4, 1998
 Kinkos - Conference Rm. 48th & Vine 7:00 P.M.

Meeting called to order by 1st Vice, Ed Ridge in the absence of Pres. Jerry Moore.

Minutes were approved with motion by Kay Jurgens, 2nd by Phyllis P. Carried.

Treasurer's report approved with motion by Vera L., 2nd by Kay J. Carried.

BILLS: Presented for payment & approval. Motion made by Ken Doe, 2nd by Jim Atkins. Carried.

OLD BUSINESS: Request from Calif Club re: donations of State fossil, rock, mineral, gem, etc. Juniors would make the contribution but need some assistance.

NEW BUSINESS: Juniors working on Show - packaging materials. They are going to pre-measure materials for gem dig prior to Show. Need some butter dishes.

MEMBERSHIP: Application & Meeting attended.

Michelle Crawford 2943 "M" St. Lincoln, NE 68510

Motion by Vera L. to accept, 2nd by Kay Jurgens. Carried.

Club also received its membership card - "Friends Of Museum".

No further business. Meeting adjourned.

Respectfully submitted,

Vera Lyman

Vera Lyman, Secretary

L.G.M.C. Treasurer's Report March 1998

	NBC Checking Balance 2/28/98		\$2100.83
;Receipts:			
1998 Membership Dues	10.00		
Member Donation LGMC Ed./Schol.Fund	40.00		
Anniversary Pins & Patches	109.50		
Ruby Raffle at Show	201.00		
NAOESCI Silent Auction	370.50		
Youth at Show-Gem Dig,Rock Races,Wheel	383.36		
Suspense Show Change Return	900.00		
Show Receipts	<u>3800.00</u>	5814.36	
Payments:			
P & S March Printing (150 copies)	77.34		
Rent Feb.Meeting	85.00		
Prepay Rent Oct.,Dec.	120.00		
Board Meeting March	10.00		
Gem Palette Editor-Jan.Swap Flyers	15.00		
Founders Awards	67.31		
Friday Show Set-up Refreshments	256.88		
Youth at Show	17.07		
Misc. copies/Fax	8.13		
Suspense Show Change	900.00		
1998 Show Expenses	<u>3815.48</u>	5372.21	
Cash Payment of Silent Auction Funds to NAOESCI		<u>200.00</u>	
	NBC Checking Balance 3/31/98		2342.98

1998 ELECTED OFFICERS

President:	Jerry Moore, 2305 So.35th St.	Lincoln NE 68506	489-4184
1st Vice President	Edward Ridge,2507 A Street.	Lincoln,NE 68502	477-8469
2nd Vice.Pres.	Shirley Rockel,1134 W.Avon Lane	Lincoln,NE,68505	464-3069
Secretary:	Vera Lyman, 420 N. 56th St.	Lincoln,NE 68504	464-6089
Treasurer:	Phyllis Parks, 2435 So. 19th St.	Lincoln,NE 68502	476-6798
Board Member:	Jim Atkins, 1333 So.15,Apt.1	Lincoln,NE 68502	438-2434
Board Member:	Kenneth Doe,925 El Avado Ave.	Lincoln,NE 68504	466-4877
Board Member	Marcia Eddy-Hamilton,4903 Hillside St.	Lincoln,NE 68506	489-0716
Board Member	Kay Jurgens, 14421 Danvers St.	Waverly,NE 68462	786-2756

Nominating Committee

3 years	Roger Pabian Bill Rockel
2 year:	Shirley Rockel Kenneth Doe
1 year:	Vera Lyman Susan Taylor
Chairman:	<i>Immediate Past President</i>

Long Range Planning & By-Laws Committee

3 years	Charles Wooldridge Kevin Schwartzman
2 Year:	David Heffelbower Jim Parks
1 Year:	Vera Lyman Roger Pabian
Chairman:	<i>Immediate Past President</i>

Standing Committees

Membership:	Shirley Rockel	Programs:	David Heffelbower
Education:	Roger Pabian	MWF Liaison:	Vera Lyman
Field Trips:	Jerry Moore, Coordinator	Scholarship:	Susan Taylor
Historian:	John & Lilly Lewis	Christmas Party	Shirley Rockel
Hospitality:	Eddie "Lightning" Ridge	1998 Show:	Roger K. Pabian
Study Coordinator:?		1999 Show:	Jim Marburger
Housing/Property:	Jim Parks	2000 Show:	
Youth Activities:	Kay Jurgens	1998 Swap:	Francis Belohlavy
Librarian:	Roger Pabian	1999 Swap:	
Auditing Committee:?			

Gem Palette Correspondent: Vera Lyman
Geology Day Coordinator: 2nd Vice President

L. G. M. C. Web Page Address :
<http://nesen.unl.edu/lgmc/lgmc.html>

Your PICK & SHOVEL Staff

Publisher:	Lincoln Gem & Mineral Club, Inc., P.O. Box 5342, Lincoln, NE 68505-0342
Editor:	Phyllis Parks 476-6798
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Circulation:	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 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 (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.

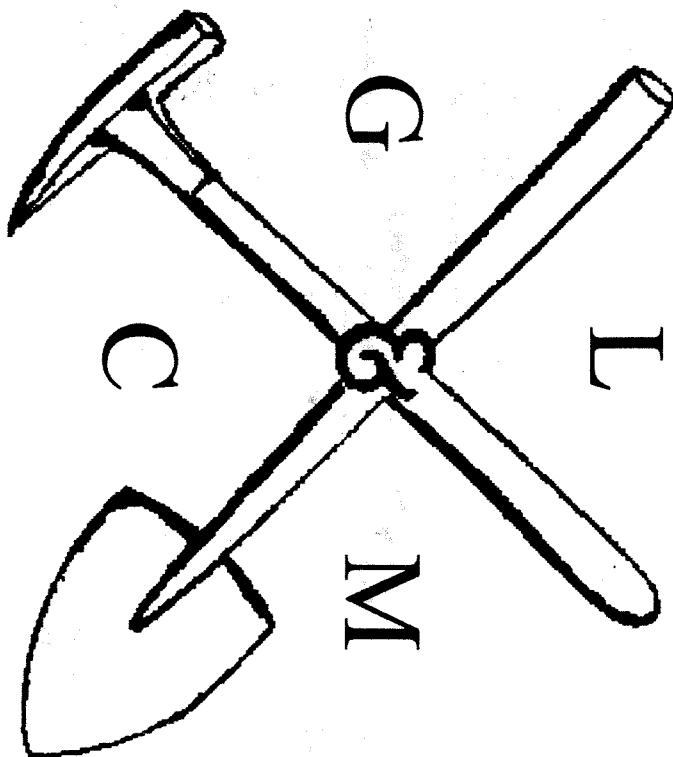
Dues to Lincoln Gem & Mineral Club are as follows:

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

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.

THE PICK & SHOVEL

APRIL 1998



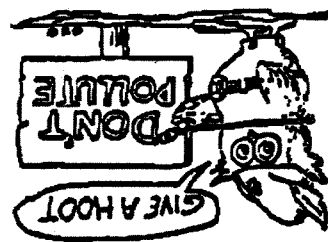
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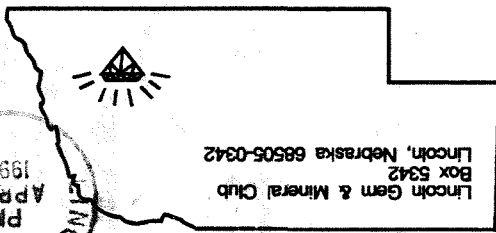
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