



PICK & SHOVEL

Inside.....Show Reports

Housekeeping

Volume 32 Number 8

April, 1992

Lincoln Gem and Mineral Club, Inc.

P. O. Box 5342

Lincoln, Nebraska 68505

1992 ELECTED OFFICERS

President: C. David Heffelbower , 1819 Washington St., Lincoln, NE 68502	475-4713
1st Vice President: Charles Wooldridge , 836 S. 31st St., Lincoln, NE 68510	475-9034
2nd Vice President: Francis Belohlavy , 1919 "K" St., No. 4, Lincoln, NE 68510	477-4337
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: Pam Killion , 3425 "N" Street, Lincoln, NE 68510	477-1780
Board Member: Kevin Schwartzman , 1226 So. 24th, Apt. D, Lincoln, NE 68502	474-9441
Board Member: Billie Heffelbower , 1819 Washington, Lincoln, NE 68502	475-4713
Board Member: Shirley Rockel , 1134 West Avon Lane, Lincoln, NE 68505	464-3059

NOMINATIONS COMMITTEE

3 Years: Dwight Miller
Janet Wright
2 Years: Gerald Moore
Don Phillips
1 Year: James Null
Michael Smith

LONG RANGE PLANNING AND BY-LAWS COMMITTEE

3 Years: Fred Holbert
Roger Pabian
2 Years: Kevin Schwartzman
Jim Marburger
1 Year: Bob Wright
Linda Parks-Lundgren

STANDING COMMITTEES

Membership: Shirley Rockel
Education: Roger Pabian
Field Trips: Kevin Schwartzman
Historian: John & Lillie Lewis
Hospitality: Eddie "Lightning" Ridge
Study Group Coordinator: Ralph Ulrich
Housing/Property: Jim Parks
Junior Activities: Pam Killion
Librarian: Jim Parks/Charles Wooldridge
"Gem Palette" Correspondent: Pam Killion
"Geology Day" Coordinator: Francis Belohlavy

Programs: Charles Wooldridge
MWF Liaison: Vera Lyman

Scholarship: Dwight Miller
Christmas Party: Billie Heffelbower

1990 Rockhound/Year:
Ewald Paul

1992 Show: Phyllis Parks

1993 Show:

1992 Swap: Roger Pabian

1993 Swap:

AUDITING COMMITTEE, 1991-1992

Charles Wooldridge
Francis Belohlavy
Shirley Rockel

YOUR PICK & SHOVEL STAFF

Publisher: Lincoln Gem & Mineral Club, Inc., P. O. Box 5342, Lincoln, Nebraska 68505

Editor: Roger Pabian, P. O. Box 5342, Lincoln, NE 68505

Business Reporter: Vera Lyman

Financial Reporter: Phyllis Parks

Circulation : Phyllis and Jim Parks

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

CALENDAR OF EVENTS

APRIL MEETING: Saturday, April 25, 7:30 PM
Nebraska Center for Continuing Education
33rd and Holdrege Streets.

PROGRAM North American Gemstones, narrated by
Efrem Zimbalist, Jr.

JUNIOR MEETING: 7:00 P.M. MAKING GEMSTONE TREES.
Program to be coordinated by Kevin
Schwartzman. See item on page 4 for
further details.

COMING EVENTS: SHOW: Wichita, Kansas, April 24-26.
Rocky Mountain Federation Show.

REGIONAL SHOWS:

HAYWARD, CA, August 21-23
BRUNSWICK, OH, July 23-26 (AFMS)
ALPINE, TX,, April 17-19

HARRISBURG, PA, Sept. 19-20
WICHITA, KS, April 24-26
BUTTE, MT, date pending

NEW MEMBERS: James L. Woita
6112 Seward #2
Lincoln, NE 68507

Greg Brettman
Apt. 23
5621 Briar Rosa Lane
Lincoln, NE 68516

Jack Anderson
611 North 56th St.,
Lincoln, NE 68404

Mr. & Mrs. O. A. Spencer
Unit 6
7500 South Street
Lincoln, NE 68506

FUTURE MEETING DATES, PLACES:

DESSERT SUPPER, May 23, 1992,
Bethany Park Shelter House
Cotner and Vine Streets, 7:00 P.M.

REGULAR MEETING: September Meeting,
Saturday, September 26, NCCE,
33rd & Holdrege Streets

DISPLAY MATERIALS Faceted Stones. To maximize the impact
of our excellent faceting lecture at the
March meeting, bring along examples of both
faceted stones and faceting rough. Cases will
be furnished.

PRESIDENT'S MESSAGE

Once again Spring is here (during set-up day in fact) and our thoughts turn to outdoor pursuits. Several possibilities come to mind and several more have been voiced to me during the past several weeks; I'll keep you informed.

Our annual Spring Show set records for attendance. We had a great turnout for set-up day; more than thirty people showed up. We got in to work at 9:00 A.M. and made short work of the whole process. Our first dealer came at 9:45 and by noon we had almost everything set up. I wish to thank all who came with an outstanding effort. We all had a lot of fun and no one had to work too hard. Things started a little slowly Saturday but soon heated up in grand style. One dealer needed to go to the bathroom at 1:00 and made it at 5:30!. Boy, talk about hopping! We ended up with 2,363 paid adults, 75 unpaid in groups and uncounted hordes of children. We picked up a couple of new members and lots of people interested. If anyone knows someone interested, get out the thumb screws and get to work, we do need members. Thanks again to our army of selfless workers who made this a success; we couldn't do it without you.

Dave

MARCH MEETING

The meeting date just six days after the end of our super show did not dampen the enthusiams of the hard core gem enthusiasts and there were probably more exhibitors involved in the show and tell part than we have had for a long time.

Fred Holbert displayed some of his recent show acquisitions including very fine Montana dendritic agates and Mexican Lace Agate. Kevin Schwartman and Kathy Pavlisch displayed a gem elephant and some very fine hematite beads. Charles Wooldridge displayed examples of faceted stones that went well with the evening program. Jim Parks gave ample proof that he has been keeping his sphere grinder drawing overtime pay with recent examples of his handy work. David Heffelbower showed a number of opals and a very nice piece of Larvickite that had much larger crystals than we usually see in this gem. Roger Pabian showed some examples of cabochons from Brazilian Agate and a Laguna Agate with a bright red, hematite colored center.

Ralph Ulrich presented an excellent program entitled "Faceting for Fun," and it came complete with a set of lecture notes. Ralph's slides and visual aids were made especially for this presentation and they were of super quality and high educational value. I asked Ralph for copies of the slides showing steps in faceting a round brilliant so that I might use them in my gemstone lectures at UN-L next fall.

Those who missed the meeting missed seeing some excellent examples of gems and minerals as well as an excellent program. RKP

EVVY AND LOIS BACK

Irl and Lois Everett have retruned from their winter home in Texas. We hope that Evvy is on the mend. See letter on page 7.

ASIAN CULTURE CENTER EXHIBIT

Dragon's Tears: Minerals in Oriental Art, changing exhibit 15 at the Lentz Center for Asian Culture has been removed and participants should have by now received back the materials they loaned.

Karen Kordik, Curatorial Assistant at the LCAC, provided the following attendance figures from the January 2 - March 30 time span for the show. January - 2,467, February - 3,336, and March - 3,611, for a total of 9,414. The monthly average was 3,138.

Thanks to LGMC and the exhibit participants for their support of this event. Those who missed it missed a very fine exhibit. RKP

ART HENRY

Word has been received that Art Henry, well-known demonstrator who painted pictures on rock slabs, passed away recently. Art had many friends throughout Nebraska and the Midwest. Our sympathies to his family. +++

EVERETT WEBER

Former LG&MC president, Everett Weber, passed away recently. He had been active in the club through much of the 1960's and early 1970's and still had many friends here. Our deepest sympathies are extended to his family and friends. +++

KANSAS CITY SHOW

The Greater Kansas City Show was held at the Trade Center on March 13, 14, and 15, and proved to be a very fine show. I lectured there and delivered a new presentation on agates and also took a featured display of Mexican material.

The displays were by and large very well thought out by the exhibitors and many unique items were to be seen. My favorite item was a head of Tampa Bay Coral with a sand dollar trapped in the silica gel that formed the banded agate.

Lincoln attendees included Don Phillips, Fred Holbert, Dave and Billie Heffelbower, and myself. Fellow members, Bill and Betty White had a number of outstanding exhibits that they brought to our show the following weekend.

Dealers had many very nice items and they did their part to push many of us closer to the poverty level. I obtained some nice tourmalines that I will be able to use in my gemstone classes at UN-L next fall. +++

LG & MC YOUTH**MAKING GEM TREES**

Submitted by Kevin Schwartzman

Gem trees are an easy and inexpensive form of lapidary art. It is also an interesting way to show off nice rock or mineral specimens without cutting or polishing. During the junior club meeting, I will be demonstrating my method of making gem trees.

Materials needed include:

- * 24 or similar gauge wire.
- * Small (approximately one-quarter inch) colored stones (polished or unpolished).
- * Large rock or mineral for the base of the tree.
- * Cup hook mounted on a wooden handle for twisting wire.
- * Needle- or long-nosed pliers to hold the wire while twisting it into branches.
- * Elmer's glue and rubber bands of various sizes.

Wire will be provided and I will bring several mounted cup hooks to use during my demonstration. We will not have enough time to complete a full tree, so I will have some wire branches made up prior to the meeting.

One word of caution; when doing any type of wire-wrap work (such as gem trees) please be very careful, the ends of the wire are very sharp and can easily scratch or poke bare skin or eyes. I recommend wearing some form of glasses or eye protection while twisting wire.

I invite all juniors and adult members to this demonstration. See you Saturday the 25th.

SHOP HELP

Use a Scripto Sharpie (TM) felt tipped pen to mark your cabochons for trimming and cutting. The ink dries fast and does not penetrate the stone and the ink is neither water or oil soluble. The line is heavy and can be easily seen and can be sanded off when finishing the stone.

Some felt tipped pens have ink that dries very slowly. This ink can penetrate soft stones and aggregates such as agates, jasper, and jade. For that reason, I recommend the Sharpie because the ink dries quickly.

SETTING UP HOUSE KEEPING

By Roger K. Pabian

Two things really stand in the way of the amateur who would like to learn about paleontology or the study of fossil organisms, either plants or animals. The first is parts from the AFMS uniform rules for fossil exhibitors and the second is the air abrasive unit for cleaning or preparing fossils.

In the first case, quality and preparation rules for the fossils require the removal of excess matrix from the fossils, and there is nothing wrong with that in itself. In many instances, exhibitors look upon encrusting organisms (epizoites) such as some inarticulate brachiopods, bryozoans, etc. as a deterrent to the fossil's quality and preparation. The air abrasive units have made it too easy for would-be exhibitors to remove all of those little creatures that make the fossil "complete". To produce a fossil that is thought to be more acceptable to a judging team, a little "paleoecosystem" is often destroyed.

Marine organisms have developed ways of "setting up house keeping" to survive and reproduce in their watery domain. An ecosystem is based largely on the producers or plants that produce proteins and oxygen for food and respiration of the animals or consumers. These functions of the ecosystem are pretty straight forward and observable on a day to day basis. Not as easily observable, but still functioning on a day to day basis are plants or animals that have parasitic, symbiotic, or commensal relationships with others.

Parasites are the the nastiest of these organisms that rely on some other organism for their food and shelter. Parasites are vicious and attack their host with malice and aforethought so to speak. Parasites do not hunt or dig or filter for their eats---they simply attack their host or feed upon the food that host has eaten by getting into the host's digestive tract.

Myzostome worms are among the nasty critters I come into contact with on an almost daily basis. These pesky critters attacked crinoids from almost the beginning of the class crinoidea. They manifest themselves as swellings and borings on the cups or stems of crinoids. I have seen myzostome worm borings on some of the earliest Ordovician crinoids and the are still seen on Permian forms. Success was that of the myzostome because they apparently did not kill their host, which is one of the risks that comes along with parasitism as a way of life.

Some parasites are very host-specific. That is, they will only attack a certain species. Other parasites will live anywhere there seems to be a "*free lunch." *Really, a no no in any ecosystem.

Commensals are more like impolite intruders who come into your house or campground, set up house keeping or camp, are constantly in the way, park in your reserved parking stall, and befoul your living area. They don't eat you or your food though. Rude and stupid best

describes these organisms but malicious they are not. Commensals include such things as inarticulate brachiopods like Crania modesta that often sets up house keeping on the pedicle valve of the articulate brachiopod Antiquitonia americanus. Real hotbeds of commensalism are often the brachial valves of strophomenoid or productoid brachiopods, or the valves of large myalinoid clams.

The biggest danger that a commensals may pose is that they will build their colony or shell in such a place or way that it will interfere with the food gathering mechanism of the creature they built on. My studies have produced brachiopods whose valves have been stuck shut by bryozoa colonies that built across the commissure or opening and bryozoans and corals building over the apertures of other corals. We might compare this to a 75 ton canary building a nest on the roof of our house.

The next time you find some of these larger brachiopod or clam fossils, just wash off the valves with some soapy water and a soft bristled brush. Some of the little surprises you could encounter in addition to the commensal brachiopods are bryozoans, worms, crinoid holdfasts, edrioasteroids, algae, and a whole host of creatures. Use a five or ten power magnifier for best results.

Symbionts are organisms that are essentially dependent on oneanother to sustain their lives. Modern coral reefs often have species of corals who allow only a given species of fish the feed of debris that collect in their tentacles and jam up their food gathering mechanism. In return for their cleaning service, the fish get their food, shelter, and protection from predators, and don't get zapped.

Some species of algae have been known to live in the bodies of corals. They provide the coral with oxygen for respiration and the algae in turn provide the corals with carbon dioxide.

In the fossil record it is often difficult to distinguish what creatures were parasites and what were hosts. Soft bodied parasites that never were preserved will likely never be known. The myzostome worms left the borings, swellings, and their teeth. If you dissolve an infested crinoid stem or plate in dilute acetic acid, the teeth will be there in the insoluble residue.

Commensals generally are not too hard to distinguish in the fossil record. If one animal has built its home on another, you likely see a commensal relationship. Brachiopod and clam shells as well as large clumps of colonial animals provide the best areas to look for commensals.

Examples of symbiosis are probably a bit harder to find in the fossil record. The coprophytic snail Platyceras that attached itself to the anal vent of the crinoid Arthroacantha carpenteri and several other species may be an example of fossil symbiosis. Thin sections of fossil corals often contain irregular brown splotches that have been interpreted as fossil algae, giving another example of symbiosis in the fossil record.

The point that I'm driving at is that it is not wise to clean everything off of the fossil to make it presentable to a few judges or purists. In all likelihood, the fossil never existed as an entity unto itself while it lived and should not have that forced on it when it is dead.

+++

OPEN LETTER TO THE L.G.&.MC.I

TO OUR MANY DEAR FRIENDS::

WELL BY THE TIME YOU GET THIS LETTER I WILL HAVE BEEN OUT OF THE HOSPITAL FOR TWO WEEKS.

FROM THE 7TH OF DEC. TO FEB. 15TH I HAVE BEEN IN & NOUT OF THE HOSPITAL SIX TIMES. IN FOUR DIFFERNT HOSPITALS AND THE LAST HITCH WAS FOR 4 WEEKS STRAIT.

I HAD A HEART ATTACK ON DEC 7th. WE WAS COMING OUT OF MEXICO AND I FELT IT COMING ON BUT DROVE ANOTHER SEVEN MILES WHERE WE WAS TAKING SOME FRIENDS.WHEN WE GOT THERE I WENT IN & LAID DOWN ON THERE BED.LOIS CAME IN AFTER A WHILE AND SAID,"I'M TAKING YOU TO THE HOSPITAL"! WELL FROM THERE I FOUND OUT THAT I HAD HAD A HEART ATTAK AND THAT IT HAD DAMAGED THE BOTTOM OF MY HEART. SO THEY THOUGHT THAT I SHOULD STAY CLOSER TO WHERE WE LIVED SO SENT ME FROM WELSCLO TO MC ALLEN.THEY DID A LOT OF CHECKS AND DECIDED I COULD GO HOME.I GOT HOME AND IN A FEW DAYS I GOT HEART FIBRILLATIONS.WHICH MEANS MY HEART WHEN ITGOT OUT OF RYTHUM SPEEDED UP AND KEPT GOING FASTER & FASTER.IF ONE DOES NOT GET TO A PLACE WHERE THEY HAVE A ELETRIC SHOCK* ING MACHINE AND GET IT SLOWED DOWN TO NORMAL IT WILL KEEEP SPEEDING UP TILL ONE HAS A STROKE OR YUOR HEART BLOWS UP.SO FROM THIS POINT THE DOCTOR'S DECIDED TO TREAT ME WITH PILLS.WHICH WORKED FORAAWHILE BUT THEN AFTER A COUPLE MORE TIMES IN GOING INOTO THE HOSPITIL FOR THIS THE DECIDED TO INSELL IN MY CHEST AREA A A I C D WHICH IS A HEART MONITOR AND REGULATES MY HEART WHEN THIS LITTLE MACHINE FEELS MY HEART GOING INTO THE FIBRILLATIONS IT GIVE THE HEART A LITTLE SHOCK AND GET IT BACK TO NORMAL.NOW MY TELLING YOU ALL THIS IS F OR YOU ALL TO UNERSTAND WHY WE HAD TO TURN DOWN THE L.G.&.M.C.I. SHOW IN MARCH.

LOIS & I REALLY FELT BAD THEAT WE HAD TO DO THIS BUT ALSO I WOULD NOT BEEN PHYSICALLY A BLE TO DO THE SHOW.SO WE ASK THAT YOU REMEMBER US AT THIS SHOW AT LEAST IN SPIRT.WE HAD WANTED TO END OUR CAREER AT LINCOLN BUT WILL HAVE TO JUST REALLY GO INTO RETIERMENT.WE STILL WILL HAVE OUR SHCP OPEN AND HAVE LOTS OF THINGS YET TO SELL.

BUT AS BOB HOPE'S THEME SONG SAY'S.."THANKS FOR TE.MEMORIES"THIS IS THE WAY WE FEEL ABOUT HE CLUB. YOU ALL HAVE BEEN SO KIND TO US AND SO FAITHFUL IN OUR SUPPORT AND WE LOVE YOU ALL FOR HIS.MAY WE ALL BE AROUND FOR A LOT MORE YEARS TO COME.

ROCKSPECFULLY
"EV" & LOIS EVERETT

THE 1992 SHOW IS OVER - Plaudits and Thank You!! are in order!

It was a good show, well planned and carried through by a group of Committee Members who went the extra mile. At this point it looks like a monetary success as well. Our attendance both paid and working hit a new high. Dealers, Promotions, Special Activities, Displays, Demonstrations and Working Exhibits were outstanding.

At this time I want to thank the whole committee for a beautiful show! Later, after our committee "wrap-up" I'd like to take you through the whole 1992 Show Process in order to let you see how important each person on the Committee is - but now I'm going to dwell on two men who really went the distance and made sure everything was accomplished.

My two Assistant Show Chairmen, Francis Belohlavy, in charge of Floor, and Jerry Moore, in charge of Displays deserve a Standing Ovation!! Both had previous show set-up and tear-down experience and (I think) must have orchestrated each hour of those times down to the seconds. They were at all planning sessions, used the best ideas that came forth, had a very workable floor plan, planned the dealer entries and exits to use the space to best advantage, were ready for other exhibits and booth set ups when scheduled and through it all took care of unexpected happenings. I do know that they worked together to put the extra touches on the computer and did many things that had not been tried before. Both of them kept right on working throughout the show as new situations became known.

Please join me in saying "THANKS" to Francis and Jerry. You made it easier for the rest of us.

Roger's Promotions started with the 1991 Show and continued right down through Sunday of the Show. Attendance was up. More youth groups were accommodated than ever, Complimentary Passes were more prevalent, and Displays were more numerous.

David's Lecture Programs were well planned and appreciated by many. We had many compliments on the speakers.

Vera's prompt report on the Gate was received with much applause and the highlights are:

Total paid attendance	2,363	for total receipts of	\$4,291.50
	Sat. 1407	paid of which	548 used discount coupons
	Sun. 956	paid of which	321 used discount coupons
	<u>2363</u>		<u>869</u>

Great job, Vera, shows many hours of hard work!!

Good Job, Charles (Wooley). Your Gem Dig participants, UNL Geology Club, took in for their club \$278.00 over expenses. The Fossil Dig was very popular except for a few splinters. Your Competitive Cases of three Nebraska materials was quite an attraction and the winners were happy.

Eddy, the Rock Races were again a success and took in \$71.81.

Our Junior Activities, under the leadership of Pam Killion and her able assistants, Junior Members and Mrs. Hayes and Kay Jurgens, was a very popular attraction with many fine rock specimen as reward for a Spin of the Wheel. With donations they turned in a total of \$418.55, to add to their account.

Plaudits soon for the many 'unsung' workers and hopefully a good financial report.
Show Chairman Phyllis Parks



The Nebraska Academy of Sciences, Inc.

302 Morrill Hall, 14th and U Streets

Lincoln, Nebraska 68588-0339

Affiliated with the A.A.A.S. and N.A.A.S.

402-472 2644, 2662

January 1, 1992

Dear Academy Member--

Greetings from the officers of the Academy! Your membership card is enclosed. We are pleased that so many of the LIFE and EMERITUS members continue to participate in the activities of the Academy each year.

Please continue to encourage your colleagues who may not be Academy members to join. The activities of the Academy are very diversified and the membership continues to grow.

We hope that many of the current LIFE and EMERITUS members will continue to make financial contributions to the Academy, increasing them if possible, even though they are not required to pay dues. These donations are made either to the regular operations fund or to the Endowment. Some members have even visited about the establishment of endowment funds in their names, which could be used for scholarships, research projects, or general Academy promotions. The Maiben Endowment (stocks, bonds, the Otoe County Farm (Research Center) near Palmyra), which Life Members Rachael and Benjamin Maiben established for the Academy nearly 30 years ago, certainly has made it possible for the organization to expand and have a more active and continuous program.

Sincerely yours,

Francis A. Haskins
1991-1992 Academy President

C. Bertrand Schultz
Executive Director &

Serving the heart of the Great Plains for over a century! Membership Chair.



The Nebraska Academy of Sciences

306 Morrill Hall, 14th and U Streets

Lincoln, Nebraska 68588-0339

~~LINCOLN GEM & MINERAL CLUB~~

15TH YEAR of MEMBERSHIP YEAR 1992

*60 — LIFE

* — Senior

* — Student

Executive Director

OTHERS WRITE

Reprinted from Osage Hills Gems, Bartlesville, OK, December, 1991.

Chatoyancy and Asterism -- Charles A. Stratton

Chatoyancy and asterism are two closely related *phenomena* in certain cabochon-cut gemstones which add considerably to their beauty and give a special effect which is valued by the consumer. Considering that the French spell *cat* with a *ch*, it is easy to see that "chat-oy-ancy" means "cat's eye quality". What is referred to is the slit-like appearance of the cat's eye pupil in bright light. The cat's eye stone, when viewed with a single light source, shows a bright streak of light across its domed top; this streak moves with any motion of stone, light source, or observer. The brighter and narrower the streak, the better the eye is considered to be. *Asterism* is a multiplication of the cat's eye effect in which two or three eyes are crossed to give a star. (I will leave the analogy of two- or three-eyed, cross-eyed cats up to you. Anyway, *aster* is Latin for *star*.)

The principle behind the effects of chatoyancy and asterism can best be visualized by observing a spool of thread by means of a single light source. A streak of light will be observed on top of the threads, running the length of the spool and perpendicular to the threads. The light appears as a streak because the correct angles for reflection occur only at one line of the curved surface. If the threads were all spread out flat, the whole surface would reflect, giving a surface sheen instead of a line. A crystal of quartz can have a set of very fine needle-shaped crystals (*silk*) as inclusions, with all running the same way perpendicular to the c-axis (long axis). If the end is cut and polished parallel to these, the reflection of light gives a sheen. Now, the curving of that surface into a domed cabochon gives the streak effect first observed on the spool of thread. Refraction of light by the domed surface deflects all beams except the ones which hit at the correct angle. What we have now is a *cat's eye quartz*. Suppose that now, instead of only one set of silk crystals, we have three, all perpendicular to the c-axis, and with one set perpendicular to each of the three a-axes of the hexagonal (or trigonal) crystal. The result is a *star quartz*, an effect sometimes seen in prized specimens of rose quartz.

The silk crystals must be very fine in order to impart good chatoyancy or asterism. In fact, they must be too fine to be clearly seen at 30-power magnification. Probably the most common *silk* is composed of rutile crystals or of voids (negative crystals). Finely-divided needles of other minerals are possible, but apparently they are not very frequent or important. The number of rays possible depends on the crystal form of the gem. Six-rayed stars (three rays crossed) are possible in the hexagonal and trigonal (six-sided) minerals: corundum, quartz, and beryl. Of these, the star rubies and sapphires of corundum are by far the most important. By comparison, quartz and beryl star infrequently and poorly. The best cat's eyes are in chrysoberyl and quartz.

Four-rayed stars (two rays crossed) are possible with gems in the isometric (cubic), orthorhombic, and other systems. Starred almandite garnets and star diopside are common and are occasionally of good quality.

Some of the star and cat's eye material mentioned here are feasible for the amateur to procure and cut. In fact, the cabochon cutter would do well to specialize in some of these. Needless to say, the cutting of the star rubies and sapphires would require the use of diamond saws and laps, from preform to polish.

LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - FEB. 4, 1992
7:30 P.M. at Reunion

Minutes of the previous meeting read & approved with motion by Charles W and 2nd by Francis B. Motion carried.

Secretary indicated omission of New Member approval at last meeting. Membership of Katherine Pavlish was approved with motion by Shirley Rockel & 2nd by Pam Lillian. Motion carried.

Treasurer's report was read & approved with motion by Francis & 2nd by Craig TenHulzen.

BILLS: All bills were approved for payment ('91 Club Bills; 2 Show bills; '92 Club bills) with motion by Vera L. & 2nd by Charles W. Carried.

OLD BUSINESS:

Questions discussed regarding our own Club Insurance. Motion by Charles W. that we retain our own insurance. 2nd by Vera L. Motion carried. Motion by Francis B. that we pay the \$ 1.00 per member to NAOESCI Ins. this year in hope that other smaller Clubs in Nebraska can sponsor State Shows & Swaps and other club functions. 2nd by Vera L. Motion carried.

MEMORIAL:

Motion by Phyllis P. that Club donate \$ 10. as memorial to Mrs. Schultz, to be added to the Nolte Retirement Scholarship in memory of Jim Taylor. 2nd by Charles W. Motion carried.

Future Meetings:

General	22 Feb. - NCCE	Board Meetings:	3 March
	28 Mar. - NCCE		6 April
	25 Apr. - NCCE		4 May
	23 May. - Park		1 June
	26 Sep. - NCCE		31 August
	24 Oct. - Park		
	21 Nov. - NCCE		

New Business:

Motion by Charles W. we donate \$ 45. for 1 year only for subscription to "ROCKS & MINERALS" for UNL Geology Library. 2nd by Pam Killian. Carried. Discussion of Club interest and putting in considerable time with an exhibit that Bob Fixter is doing at Children's Museum.

COMMITTEES:

Swap- Roger P. reported another success. Swap dollars - \$ 114.30, AFMS Scholarship - \$ 61.40. Excellent attendance. Coupel reports of thefts, but next year must have case and also no early set-ups.

Show- Phyllis P. reported that meeting on Mon. 2-17 @ Wells home.

Membership- James L woita 6112 Seward #2 Lincoln, NE 68507

Motion to accept by Phyllis Parks, 2nd by Charles W. Carried (Paid but pending attendance of meeting.)

Gift subscription to Pick & Shovel request from Jim & Nancy Crowe for Kuna & Nora Smits 7311 Glynoaks Dr. Lincoln, NE 68516

Juniors- Question of who was in charge since Janet Wright has indicated she no longer desires. Pam Killian will lead Feb. Meeting for Juniors at 7:00 P.M. looking at fossil leaves, etc. and fun collecting.

Respectfully submitted,

Vera Lyman
Vera Lyman, Secretary

LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING - Feb. 22, 1992

Minutes and treasurer's report approved as published and read.

Hospitality reported 37 members, 1 Junior and 10 guests present.

Report furnished by Adeline Nolde regarding the less fortunate members in hospitals and recovery centers. Paul Brauch able to attend meeting. Great to see you, Paul!

No Old Business.

New Business:

Show flyers & exhibit forms from various area shows. Coupons available from Greater Kansas City Show.

Book entitled "Rock Trails & Tails" by a Nevada woman. Copies available by writing her. President Heffelbower has her address.

Geology Day: 247 recorded attendance. Excellent day. Outstanding Stalagmite & Stalagmite display by Junior member, Emily Rieur. Thanks Emily.

Show Report: Phyllis Parks - Need help on set-up day (Friday)

"All Chairpersons doing their jobs to perfection." (Quote)

Friendly persuasion by Charles W. to enter NE Contest.

Workshop participants contact Fred Holbert.

Shirley Rockel has Sat. night dinner lined up. Contact her if you wish to attend.

Annual Grants Awarded:

Recipients this year were Kevin Cornwell - Omaha, NE - Graduate of Ryan High School in 1974, now working on his PhD.

Michael Myers - Auburn, NE - Graduate of Auburn High in 1979, now working on Masters.

They were introduced by Dr. Durrance, Chairman of Geology Dept. at UNL. and awarded with their checks by Dwight Miller, Scholarship Chairperson

Each recipient gave an outstanding report of their studies.

Adeline Nolde Retirement Scholarship:

Gift receipts given by Adeline as a Grant in memory of Howard J. Taylor, Jr. all known to us as Jim. This Grant was presented to Hannon LaGarry Guyon. Roger Pabian made the presentation on behalf of Adeline Nolde.

Meeting adjourned with fellowship, coffee and cookies.

Respectfully submitted,

Vera Lyman

Vera Lyman, Secretary

LGMCL Treasurers Report for February 1992
NBC Checking 2/1/92 \$3111.67

Receipts:

1992 Membership Dues	139.00	
Suspense '92 Gem Palette	10.00	
Susp. Spec. Scholarship/Nolde	10.00	
Accts. Receivable P & S Ads	40.00	
Subscription P & S 1992	10.00	
'92 Dealer Space Show	250.00	
'92 Demonstrator Space Show	25.00	484.00

Payments:

Postmaster-Stamps for P & S	70.00	
Memorial Mrs. Schultz	10.00	
Donation NAOESCI	83.00	
UNL Printing-Feb. P & S	128.53	
Special Scholarship/Nolde Fund	350.00	
UNL Center Cont. Ed. Jan. Meeting	186.03	
Cookies Scholarship Meeting	11.14	
Show Exp. Gem Dig	60.00	
Copies at Astros	6.98	
Treas. copy exp. & postage	19.54	
Cert. Appreciation Show & Comps.	10.87	
Refund to Everett Lapidary	250.00	1186.09

LINCOLN GEM & MINERAL CLUB, INC. - BOARD MEETING - March 3, 1992
Tues @ 7:30 P.M. at Reunion

Minutes of the Feb Meeting were read with correction in wording re: exhibit at museum - To read as follows: "Discussion of possibility of Club putting in exhibit at Children's Museum."

Minutes approved as corrected with motion by Charles W. , 2nd by Francis B. Carried.

Treasurer's report read and approved with motion by Francis B. & 2nd by Kevin S. Carried.

BILLS:

Show & Club bills approved for payment with motion by Francis B. & 2nd by Charles W. Carried.

Motion by Vera L that Board authorize Treasurer to rent Safety Deposit Box at NBC for CDs etc. 2nd by Kevin S. Carried

OLD BUSINESS:

Received videos from Sartar Hamann - Now leader needs to be put on and put in Library. List of videos from Sartar Hamann available through Charles Wooldridge.

NEW BUSINESS:

Members can subscribe to Lapidary Journal & Club retains \$ 6.00 per subscription.

AUDIT:

Treas. Phyllis P. thanked Shirley R. & Charles W. for doing audit. Charles commended Phyllis for a Job well done. Motion by Vera L, 2nd by Francis B. to accept audit. Carried.

ANNOUNCEMENTS:

Phyllis P. announced that a Show Committee Meeting would be at the Wells home again on Monday evening.

Pam K would like to plan a Junior Field Trip to Ashfall.

Meeting adjourned.

Respectfully submitted,

Vera Lyman

Vera Lyman, Secretary

LGMC Treasurer's Report March 1992

	NBC Checking 3-1-92	\$2409.58
Receipts:		
From '92 Show	4706.31	
'92 Membership Dues & Reg.	158.00	
Suspense Member Dinners	340.00	
Suspense Carpenter Paper	47.50	
Sell Donated Saw for LGMC Schol.	175.00	
Junior Activities at Show	418.55	
Ticket Change Fund Return	600.00	
Total receipts		6445.36
Payments:		
'92 Show Expenditures	4197.63	
Liability Insurance	150.00	
February Meeting/Scholarships	84.66	
May Meeting Rent	25.00	
'92 Who's Who Printing	21.50	
March P & S Printing	93.39	
Feb. P & S Copy	9.59	
New Stationary	66.03	
Friday Show Set Up refreshments	35.95	
Suspense Carpenter Paper	47.50	
Junior Project Up date specimen	27.80	
Suspense Member Dinners	340.00	
Change for Ticket Sales	600.00	
Total Paid out		5699.05
NBC Checking Balance March 31, 1992		\$3155.89

President Heffelbower called the meeting to order at 7:35 p.m..

In the absence of the secretary Fred Holbert moved we hold reading of the minutes in abeyance until the April meeting. (The minutes were omitted from the Pick and Shovel due to an error.) Ralph Ulrich seconded. Carried.

Treasurer Phyllis Parks reported the Balance on Hand on February 29, 1992 was \$2,409.58. The report was placed on file.

Hospitality Chairman Ed Ridge reported 24 members and three guests present.

There was no Old Business.

New Business:

- . Adeline Nolde announced Jane Walla is giving classes in Jewelry making on March 31 and April 1. Registration slips were available for entering this class.
- . Roger announced that cars not parked properly within the designated yellow lines will be ticketed by UN-L.

Committee Reports:

- . In Vera's absence, Phyllis gave these gate receipt figures:
 - \$4,291.50 gate receipts
 - 2,363 paid tickets
- . Rock Race chairman Ed Ridge reported \$71.81 taken in with \$16 expenses.
- . Juniors took in \$385.75 and a \$5.00 donation. All who assisted in this booth were acknowledged and thanked for a job well done.
- . The Gem Dig was supervised by UN-L Geology students who profited \$278.00.
- . Show Chairman Phyllis Parks reported she was well pleased with the show. As the bills are not all in, she could not give a final profit figure. This will be available in April or May.
- . Phyllis passed around a gold pin depicting the Club Logo of these many years which will sell for \$5.00. Pins will be made available for purchase in the near future.

Fred Holbert asked for a resounding thanks to Show Chairman, Phyllis for a job well done. He also acknowledged the professional labor - and hard work - of those involved in Demonstrations and displaying Exhibits. He also thanked Woolly for sawing the many rocks for all the young kids and for all the treasures Woolly gave them.

Phyllis commended Woolly for his work done on the Competitive Cases. This, too, was a job well done.

Membership Chairman Shirley reported receiving five new applications and eleven interested applicants who were placed on the mailing list.

President Heffelbower reported he felt there were no weak spots as every task was performed with proficiency and perfection.

The dealers as well as the general members were delighted with the catered dinner served by 70th & "O" Street Hy-Vee Caterers.

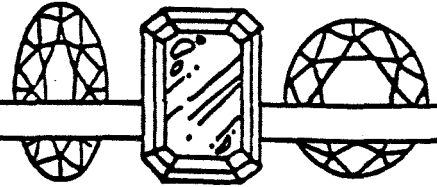
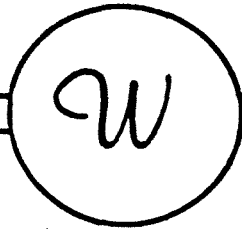
Announcements:

- . Ollie Wittman requested the eleven prospective members be added to the mailing list as soon as possible. Phyllis reported they will receive the next two or three Pick and Shovels.
- . President David commented on the good help setting up. He felt he had tremendous response from all the Club members.
- . President David commended Ewald Paul and Paul Brock for attending the show. He wished them well and wants to see both of these fine members well and happy at our 1993 Show.

With no further business, Billie Heffelbower moved we adjourn. Seconded by Bill Rockel. Carried.

After a short intermission Ralph Ulrich gave a very informative and interesting program on Faceting.

Acting Secretary,
Shirley Rockel



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1/2 page, \$7.50; 1/3 Page, \$5.00; 1/4 page, \$3.75 (Min). These ads will be placed throughout the bulletin as space permits.

Subscriptions to the PICK & SHOVEL ARE \$10.00 per year mailed.

Dues to LINCOLN GEM & MINERAL CLUB are as follows:

Adult membership fee \$10.00 (age 18 and over)
Junior membership fee \$2.00 (age 12-16)
Family membership fee \$22.00 (husband, wife, and all children under 18---permanent residents of household).

New memberships must be approved by the Board, after applicant attends at least one (1) regular meeting of the club, and pays the above dues plus \$5.00 registration fee.



H.E.L.P.

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