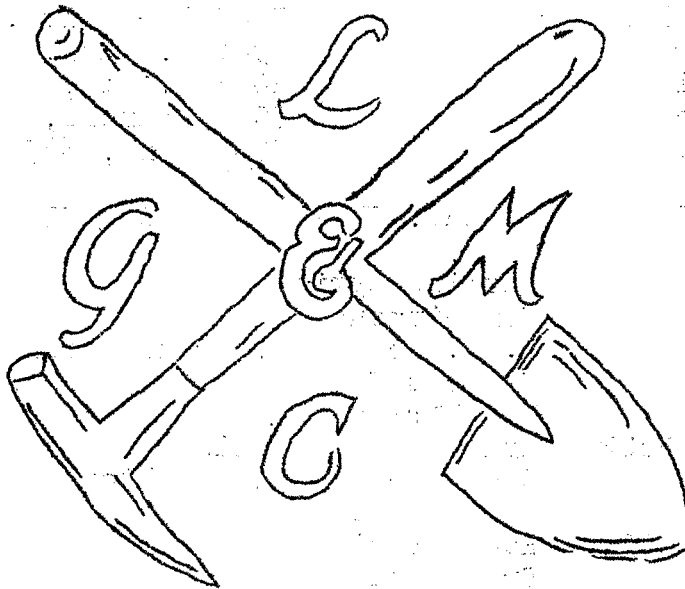


# THE PICK & SHOVEL



OCTOBER 1970  
Official Publication of  
THE LINCOLN GEM AND MINERAL CLUB, INC.

Box 5342  
Lincoln, Nebraska

MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES  
AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES  
NEBRASKA STATE ASSOCIATION OF EARTH SCIENCE CLUBS, INC.  
COMMUNITY ARTS COUNCIL OF LINCOLN

## THE PICK & SHOVEL

Official publication of Lincoln Gem & Mineral Club, Inc., Box 5342, Lincoln, NE 68505, published Sept. thru May, 10 days prior to the meeting date of the club.

The Lincoln Gem & Mineral Club meets at the W.O.W. Bldg., 732 S. 27th St., Lincoln, NE, on the 4th Sat. of the month, Sept. thru May.

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.

### ELECTED OFFICERS FOR 1970

President	Mrs. Phyllis Parks	2435 S. 19th, 68502	423-6798
1st Vice-Pres	George E. McGinnis, Jr.	3444 Somerset Ave. 04	466-4878
2nd Vice-Pres	C. Ray Waddle	2640 Everett, 68502	423-3196
Rec. Sec.	Mrs. Evelyn Ulrich	3521 S. 48th, 68506	488-9051
Treasurer	Ralph Ulrich	3909 Pace Blvd. 68502	423-0419
Board Members	Irl Everett	2941 N. 65th, 68507	466-6204
	Jim Parks	2435 S. 19th, 68502	423-6798
	Roger Pabian	300 Sycamore, 68510	489-3081
	Lynn Wells	2940 Vine, 68503	435-6758

### APPOINTED OFFICERS, CHAIRMEN & COMMITTEES

Liaison Representative	Darline Sprick
Field Trips	Tom Simmons
Program	G. W. McKinney, Frank Marsh, Darline Sprick
Historian-By Laws	Frances Tracy
Library	Kay Ulrich
Membership-Guest Book	Lynn & Marie Wells
Refreshments	Eugene & Marcella Hilton
Coupons-Stamps	Helena Baegl
Show Chairman - 1970	Roger Pabian
Uniform Rules	Frank Rule
Housing & Property	Phyllis & Jim Parks
Rep. to Com. Arts Co.	Edith Holdorf, Norma Miller
Calling Committee	Glenna McGinnis, Nelda Oliver, Vi Van Cleave
Rock Swap - 1970	Howard Taylor and <b>Craw</b>
Communications-State Assoc.	-Norma Miller
Safety Chairman	Lawrence Van Cleave

STEERING COMMITTEE FOR 1974 FEDERATION SHOW: Ralph Ulrich, Chairman; Gene Eno, Vice-chairman; Irl Everett, Secretary; Bruce Simon, Financial Secretary; and Howard Taylor and Larry Rupert.

Editor Norma Miller, 931 Cottonwood Dr. 68510 489-3956  
Co-Editor Phyllis Parks, 2435 S. 19th, 68502 423-6798  
(Members of National Association of Bulletin Editors)

Articles published in the PICK & SHOVEL may be reprinted if credit is given and a copy of the publication sent to the editor. Annual subscription for the PICK & SHOVEL (which is automatically included with full club membership) is \$2.00 per year.

## CALENDAR PAGE

REGULAR MEETING...7:30 PM, Sat. Oct. 24th  
WOW BLDG., 724 S. 27th

BUSINESS...Show reports  
Nominating Committee report

PROGRAM...Color film titled  
"How Mountains are formed"  
Mac McKinney, Program Chairman

REFRESHMENTS...donuts and apple cider, coffee too, of course

NEW MEMBER...Charles H. Kitchen, 3909 U St., 68503 ph 43206006

CHANGE OF ADDRESS: Lt. Col. Lee A. Mestas  
2913 Sopril Ave., Glenwood Springs, CO 81601  
Norman Balliet, 2401 S. 9th, 68502 ph 475-5834

ROOM 104...now in session...every Friday evening from 7:00 to 10:00  
Everyone interested - come and join us.

LAPIDARY CLASSES...now in session but the next session starts  
Nov. 23, 24 and 25. Phone 423-2391 to register.

## COMING EVENTS:

- Oct. 16-18 Platte Valley Rock & Mineral Club, 100th Meridian Rock Club, and Prairie Rock Hound Club Show, National Guard Armory, North Platte, NE
- Oct. 17-18 North Iowa Rock Club Show, Jolly Troll, Hiway 18 west of Mason City, Iowa
- Oct. 17-21 Mid-Iowa Rock Club Show, Fisher Center, Marshalltown, IA
- Oct. 18 Little Crow Lapidary and Mineral Society Show, Senior High School, Wilmar, Minnesota
- Oct. 18 Martin, South Dakota Gem Show, American Legion Auditorium, Martin, South Dakota
- Oct. 25 Northeast Iowa Rock Club Show, Legion Hall, Sumner, Iowa
- Nov. 7-8 Chanute Gem & Mineral Society, Central Park Pavilion, Chanute, Kansas
- Nov. 14-15 Ellsworth, Kansas Gem & Mineral Festival, National Guard Armory, Ellsworth, Kansas

NEWS & NOTES ....How about congratulations to each one of the LGMC Members who "got their geet wet" and entered a case or cases in our first competitive show. Every one of them received a ribbon for their efforts. Blue ribbons were awarded to Kay Ulrich, Jerry Kohn, and Roger Pabian for 1st place in their classes. Blue ribbons for 1st in class and silver cups for high score in division were earned by Norma Miller and Ralph Ulrich. The Best of Show Trophy went to Bruce & Clark Morgan of Valley, Nebraska. Congratulations to you Bruce & Clark, and our sincere thanks for exhibiting your unsurpassed chanel work in silver and stone. ....Now get to work LGMC members and keep all the trophies at home next time. pnp



*Last month...* the September meeting was held on the 12th and was a preliminary Show meeting with 39 members present. Reports were given on progress of the arrangements for displays, dealers, publicity, advertising, awards banquet, editor's breakfast, etc. Roger Pabian, show chairman, commented on aspects already completed and called for volunteers on some incompletd plans.

Elected to the nominating committee were Norma Miller chairman, Larry Rupert, and Hazel Bagg.

Lapidary classes under the direction of John Lewis were to begin Sept. 14th.

Marie Carveth and Eleanor Rupert, Hazel Bagg and Phyllis Parks were responsible for those good cookies last month.

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COMMUNITY ARTS COUNCIL

The September 21st meeting was held at the Lincoln Center Bldg. with the new president, R. L. White, presiding.

Mr. Carroll reviewed the program of work developed during the past summer and presented the budget for the current year. He also reviewed the policy governing the master mailing list which member organizations may make use of in any manner they wish, and any portion they wish, at cost plus 30%.

Brief reports on performing arts activities in Lincoln during the past summer were given.

Ralph Ulrich announced the coming LGMC Show and extended an invitation to all members to attend.

-Edith Holdorf, Co-rep to Community Arts Council  
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OPEN LETTER TO LGMC:

I am interested in Earth Science and am making a collection of rocks, minerals, geodes, fossils, shells and Indian artifacts. Could your club help me make a collection suitable for teaching and for clubs?

I started collecting a few months ago. My teacher was pleased with my collection but told me to continue to collect. I am in hopes to make a worthwhile collection.

Very truly yours, Connie Vincent,  
Fillmore, New York

(Bring your donations to the meeting Oct. 24th with identifying labels and location of the collection. Your editor will see to it that the material is packaged properly and mailed promptly.)

*History*  
*Notes 10 years ago*  
Historian - Frances Tracy

The regular meeting was held at Morrill Hall with thirty-eight members and six guests present. A colored film on "Minerals and Rocks" was presented by Dr. Gibson.

FROM WHERE I SIT ! ! ! !

A message for LGMC Members Only:

I have enjoyed the RARE privilege of presiding at our club meetings thus far in the year of 1970 and I am sincere in expressing the fact that I have enjoyed it - also acknowledging the fact that it has not been the easiest spot in the world to sit. I've used the word rare since it is one of the few times that a club president has not had the immediate experience of sitting on the Board of Directors as 1st and 2nd Vice-President. Having had two years as the elected Recording-Secretary, this followed by several years as Club Editor, I was very pleased-in fact anxious- to run for President when the normal line of ascension was interrupted by personal emergencies in the 1969 Board of Directors.

So far the year has been good- your selection of Board Members (all elected officials being considered members of the Board of Directors) has been most cooperative and enthusiastic for activities which have been discussed. It has been easy to carry through several plans which had been considered or hoped for prior to this year but not accomplished or completed previously. Needless to say there are many other things which we have not yet been able to achieve. I feel that this Board has been effective because we have worked together as a unit not at cross purposes and striving to fulfill the desires of the members whenever those desires are known.

Our January open discussion meeting for all who had special hopes or ideas for the club proved stimulating. Fruit of this meeting was the discussion and purchase of amplifier which has aided some of our members to enjoy the meetings more knowingly. The new evaluation of the Nebr. State Assoc. of Earth Science Clubs, presentation to the club for acceptance and our activities with these fellow Nebraskans interested in the earth sciences has been appreciated by many LGMC members. We have had many short and long field trips (the short ones for cutting materials such as Fremont & Fullerton not yet having been accomplished.) We still have not been successful in establishing a show date for 1971 in time to have it published in the Nebraskaland Calendar, or of getting "Gems on Location" into proper shape to put it on display at Morrill Hall.

If your own ideas and hopes for LGMC have not been carried out - ask yourself if it was brought to the attention of the Board for action. Also ask yourself if you have tried to involve yourself in club activities and leadership in order to achieve these goals.

I have enjoyed this year and being involved with the many active persons in our club. Some of the members do so much for many of our activities because they want to keep our club on the high level which it has always worked for and they have a sincere and deep feeling of satisfaction for each accomplishment of the club. These active members make it all worthwhile.

Now--to lay it on the line very emphatically--I think some of the LGMC members let the club down very roughly when they did not help by providing chairmanship needed to ensure continuation of our

(continued)

FROM WHERE I SIT ! ! (continuation)

established activities. I also feel many let the club down by not contributing cases, displays, or assistance at our yearly show. From the survey made and using the 1970 membership list with the addition of all new paid memberships we have determined that about 37% of the membership was on hand Friday evening to lend a hand in the big task of setting up the show. From this survey we have also determined that 39% of the membership had some form of display to share. A number of members shared several cases of varied and interesting materials. Naturally we can assume that part of the membership may have been away on business, absent for health reasons, but what is your excuse? It is your club and the club did vote to hold a show so it was your responsibility to cooperate. I personally did not want to have a show in 1970 - but the club did and I hope I did not fail to give all the help I was capable of. Should any member do less than their best?

This year we made arrangements to have the heaviest physical part of setting up the display and dealer tables done by the Pershing Auditorium personell by the Floor Chairman laying out his plans ahead of time. This was a great help and did not increase the cost of production too greatly. I'm afraid the lack of support in the sale of advance tickets did cut down on the amount of revenue which we can usually plan on.

This being our first year of competitive exhibits most members were hesitant of submitting their own cases - thus half of the competitive cases were from other towns. I'm happy to say that several members have already started planning for this section in our next show and as a whole I think we should be very pleased with the planning and attention given to this portion of our show by the Show Chairman himself. A fine added feature for our LGMC Shows.

Many people have expressed their satisfaction with the delicious Duck Dinners catered at our own meeting hall on Saturday evening and full appreciation should be expressed to Howard Taylor for the suggestion and carrying out of plans for this event. Howard with the help of Don Lawson set up all the tables and chairs then did a huge assist in clearing it all away.

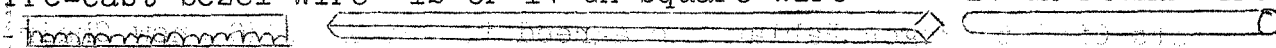
This brings to mind another thought--How many of you as members of the club who attend meetings know that we set up the chairs and tables needed at each meeting then put them all away before we are able to leave the hall. Have you ever offered to help in this time consuming chore? Have you ever volunteered for the coffee serving or bringing of refreshments? Have you ever taken a chairmanship or acted as an assistant when volunteers were needed? Or do you always say "I'll be glad to help but I'm too busy to take the responsibility," and let the activity be dropped because no one is available to plan for it?

I hope not to have tropped on toes but merely to have given you each food for thought as this election time draws near. Take a part in it, Be quick to help when your next president calls for volunteers - either by phone or through your bulletin. As most of you know I am a hearty booster for printing it all as members can read at their leisure. Your comments on this 'sermon' are welcome.

*J. N. Ellis*

Silver buffs...try Larry Rupert's PICKEL FORK

Pre-cast bezel wire 12 or 14 GA square wire 14 GA round wire



Step # 1: Select desired stone and fit bezel wire.  
Solder joint. A back of 24 or 26 GA sheet silver may be used if desired.

Step # 2: Take round wire for fork tines. Sharpen each end to point. Bend wire into horseshoe shape.

Step # 3: Twist square wire and cut to desired length.

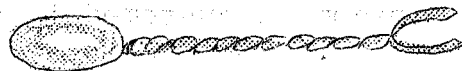
Step # 4: Solder bezel and fork tines together. As you usually have three different sizes of silver it is best to make these two solder joints at the same time. Concentrate heat on square wire as it is largest. Heat all parts as equally as possible for almost simultaneous flow on solder joints.

Step # 5: Polish silver on buff.  
Set stone into bezel by burnishing.

If bezel fits stone no epoxy is needed.

If backing is used on bezel I prefer 24 GA over 26 GA flat sheet because it will not warp as easily from heat.

Silver required: Bezel to fit stone  
2 1/2" to 3" 12 or 14 GA square wire  
1 1/2" 14 GA round wire.



stone square round  
and bezel twist wire

(Thanks Larry...this page will come out of my bulletin and go into my book of "Things to do".)

INTERSTATE BUILDERS HAVE FOUND FOSSIL LAND TORTOISES...Nebraska Department of Roads paleontologists King Richey and Kenneth Quinn, and four students from the University of Nebraska State Museum dug at a site near Lodgepole where the first three-foot tortoise shells were discovered July 21 by grader operators.

All Department of Roads projects are searched for fossils and artifacts as part of Nebraska's pioneer Highway Salvage Program, and this discovery is one of the most important because of the complete shells, limbs, armor buttons and even a beak.

The site has yielded 50 giant land tortoises, mastodon tusks, ancient horse teeth and the skeleton of an unidentified carnivore the size of a cocker spaniel. Quinn speculates that the area was a bog before the Ice Age, when reptiles were inhabitants of Nebraska.

FOR THE RECORD - STATISTICS OF LGMC 1970 SHOW by Jim Parks  
Editing by Phyllis

**THANKS!!!!**

and "Hats Off" to Roger Pabian who agreed to act as LGMC Show Chairman for 1970 and carried it off with a great deal of enthusiasm and very fine ideas- and especially so in view of the lack of experienced chairmen for some of the customary and necessary departments which have become tradition for our annual show. With a shortage of volunteers we still were able to impress all visitors with the quality of our club exhibits and the quantity of special working exhibits and special attractions. Thank you Roger for a job very well done.

Off the cuff I might add that this was especially a great undertaking since Roger was also working on the production of the great book which we were so fortunate to unveil at our show. "Record in Rock", A Handbook of the Invertebrate Fossils of Nebraska by Roger K. Pabian and illustrated by Sally Lynne Heald is a must for any who are the slightest bit interested in Nebraska Fossils. In fact, if you don't already have an interest you might become a convert by investing in the unbelievably low priced book which we hope will become a part of the libraries for all children with a love of Earth Science. Congratulations, Roger, on this achievement and on the Degree which you were awarded at the end of this summer session.

To Sally we also extend our congratulations and appreciation for the excellent art work and for her help in our own pre-show plans. We'd like to have you back as a member of our club since many of us feel you are a part of our group.

Thanks to each of the persons who accepted a chairmanship from Roger and carried out with great efficiency the planning necessary to produce such a show as we have become accustomed to having. You know who you are and how hard you worked. You also know who your assistants and advisors were so please convey our sincere thanks to each of them. Never underestimate your importance as a show has to have planning and muscle.

A very special "Thank You" to 'Sherriff Bob' Bainbridge who has become as much a tradition of our show as our friendliness and fine exhibits have. How many of you are aware that Sherriff Bob is one of the first to arrive and last to leave the show each day and is on constant watch for any unusual activity which might bring displeasure to our club? That is a lot of hours and the constancy of the service deserves much appreciation.

A very complete survey of the display tables at the show was made and each member can thank these persons for displays -(a few of the cases were minus a name so we would appreciate a name for this record)

3 cases

1 Gemolite exhibit and Service - Roger Simmons

5 empty 'come and go' cases for temporary displays (club owned cases)

5 cases - cabs, fossils, wood slabs, brazilian slabs - Roger Pabian

Lighted geode in wire frame - no name

Pseudofossils - septarian, gypsum, horn coral, "weirdos"- Lynn and Marie Wells

(continued next page)

## STATISTICS OF LGMC 1970 Show (Continued)

- 2 cases jade - rough and slabs - Snowy Range Rock Shop
- 1 case - exhibit of Wyoming trip - Bob, Nelda & Jim Oliver
- 1 case minerals - G. W. McKinney
- 1 case jewelry - Bob Bainbridge: 1 case slag - Millie Bainbridge
- 2 cases cabs - Helena Baegl
- Open display - turtle, slab, Hawaiiin Coral - no name
- 1 case - agate marbles - The Simons
- 1 case and an open display - Wyoming and other - C. Ray Waddle
- 2 cases - jewelry and cabs - Fred & Jeanette Claus
- 1 case rhodochrosite and an open display Lysite Agate and Washington jade - Mr. & Mrs. Ralph Bass of Vermillion, S.D.
- 3 cases - minerals and jewelry (1st Prize State Fair)-Darline Sprick
- 2 cases - slabs, fossils and agate - Charles Sheldon & Fern Morris, Dubuque, Iowa
- 2 cases - coral, agate and opal - Guy Helena Miller, Hastings, Nebr
- LGMC School Visual Education Cases - delivered by the Parks
- 1 case - Clarence Suhr
- 2 cases - agate and minerals - Art Howlett
- 2 cases - minerals - Norma Miller
- 1 case - Smithsonite - Fern & Bruce Simon
- 1 case - minerals, and open display of opal and soapstone - C. Ray Waddle
- 1 case - coral and agate - the Ewald Pauls
- 1 case - alabaster vase and barite roses - K. Ulrich
- 1 case - minerals - Ralph & K. Ulrich
- 2 cases - fossils, and open display of geode halves - Rod Woodcock
- 2 cases - ammonites and Brazilian agate - Geo. & Glenna McGinnis
- Center aisle of special displays
- 5 cases - Crinoids, fern prints and fossil fish - delivered and set up by Roger Pabian
- 1 case N.A.O.E.S.C. (Nebraskaland case)
- 2 cases - Ed Carter - antique marbles
- Miniature oil well - working exhibit - Roger Pabian
- 1 case - epidote - John Hufford
- 2 cases - Nebraska wood and mammoth and mastodon teeth - Don Gless
- 440 lbs petrified wood - Coleman Gipson - open display
- 940 lbs petrified wood - Tom Simmons - open display (moonstone???)
- 2 cases - cabochons - John Lewis
- 2 displays - turtles - L. W. (Vi) Van Cleave
- 2 cases - polished wood and jewelry - P. Greenwade
- 4 cases - jewelry - Frank and Tom Rule
- 8 cases - arrow heads, minerals, blue agate, meteorite, So. Pole rocks, Mexican agate, Eden Valley Wood, fairburns - Tom Simmons
- 2 open displays - rose quartz and tube agate - Tom Simmons
- 3 cases - jewelry - Jerry Kohn
- 3 cases - jewelry - Chet and Hazel Bagg
- Open display - Marie Carveth - Daisy Dino, etc.
- 1 case - jewelry - Julius & Myrtle Young
- 1 case - jewelry - Dr. John Neihardt
- 116 lbs petrified wood - open display - Julius & Myrtle Young
- Open display - LGMC - Gems on Location
- 1 case - fossils - Don and Pat Lawson
- Open display - Pleasy cast
- 1 case - fossil teeth - David Lewis

(continued)

## STATISTICS OF LGMC 1970 SHOW (continued)

1 case - John Lewis - cabs  
 2 cases - geodes and Lake Superior agates - David Eno  
 Open display - stone gremlins - Harold Eno  
 2 cases - fossils - Norman Balliet  
 1 case - jewelry - Earl Amen  
 1 open display - what-nots - K. Amen  
 1 case - chess set - Rick Kohn  
 2 cases - silver and jewelry - Larry Rupert  
 Open display - birds, rocks, etc. - The Ruperts  
 Open display - Pick & Shovel Editions and awards  
 3 cases - Marie Carveth - broken heart, eggs with rocks and geodes  
 2 open displays - squintstones and True Americans - Marie Carveth  
 5 cases - fossils, petrified wood, black lace agate and ferns -  
 Jim, Phyllis and Linda Parks  
 4 cases - chess set of onyx, picture, clock and Brazilian agate -  
 Everett Lapidary  
 1 case - lapidary work of petrified wood - Frank & Tom Rule  
 Open display - articles of interest from S. Africa to accompany the  
 slide show - Norma Miller  
 Open display - glass blowing and figures - Lloyd Moore  
 Open display and faceting demonstration - Frank Krejci  
 1 case - lapidary work and wood turning - Frank Krejci  
 Open demonstration - gold casting - Wil Lala  
 Open display - Rupert & Carveth - "salute to fall"  
 Open display and demonstration - faceting - Ralph Ulrich  
 1 case - Ralph Ulrich - faceted stones  
 Swap area display  
 Geological survey display  
 Petroglyphs - display - Carl and Nova Wells - Sioux City, Iowa  
 Displays in conjunction with the working shop - Glen Ulrich  
 4 cases - petrified wood - Harvey and Howard Kenfield, Ogallala, Nebr  
 Roomful - fluorescent display - Ralph Bass, Vermillion, S. Dakota

The Lincoln Gem & Mineral Club would like to express their sincere appreciation to several outstanding exhibitors who are not members of our club: Mr. John Hufford, Bruce and Clark Morgan, Dr. Hal Janzen, the A. Lee Close family, the Carl Wells family, Mr. Ralph Bass, Mr. Edward Carter, Mr. Ted White, and David Eno.

SURPRISE: Want to see tigereye transformed from yellow to red, right before your eyes? Use a blow torch or place on top of your stove burner. Gently at first and then steadily increase the heat until it get the color you want!

via the Rockhammer and Mesabi Media

## I'M THANKFUL

I'm thankful I'm a member of that nature loving band  
 Which explores the mountain vastness, and seeks secrets of the land.  
 We have no need for pills, or use of LSD  
 To shed the scales from our eyes, and let our souls go free.  
 We do not need the city crowds - we dare to be alone;  
 We see glory in a sunset, and beauty in a stone.

Author Unknown - The Rock Rammer and Mesabi Media

## BY WAY OF REVIEW....1974 Show Project

Your Steering Committee for the big national show is still studying, investigating, and probing for all the information they can get concerning the big event. So far we have covered the legal aspects, location for the show, local support from other organizations, the level of enthusiasm within other clubs, and the general management procedures common to all conventions and shows. Our adventure is not as yet completed but we have found that other show managers, the Midwest Federation, and Earth Science clubs are more than willing, in fact, eager to share their experiences and knowledge with us.

Early in the year we found that our position in regards to the Articles of Incorporation concerning debts and personal liability was sound, that the national show was not only permissible but was encouraged by the provisions set forth in the Articles.

The University of Nebraska campus and the State Fair Grounds are possible locations. Other locations have not yet been fully investigated.

The local Chamber of Commerce is eager to actually help put on the event and other organizations have also shown an interest in getting into the act.

The most encouraging experience has been to visit other Earth Science clubs and mention the 1974 National Show. The enthusiasm shown there is really a great experience. In fact, at the 1970 Council meeting of the Nebraska Association of Earth Science Clubs, a motion was passed to support the 1974 Show 100%. I found the same high level response at the Midwest Federation Convention and Show in Minneapolis in July. At several other out of state shows the interest and enthusiasm was also very high. In general, it seems that those people in the surrounding area are looking forward to one of the best shows in the midwest and we can expect them to support us.

We have had financial reviews and a general critique from the show chairman of the national show in Normal, Illinois, the national show in Washington, and the national show in Salt Lake City, Utah. These reviews are a great help in setting up the framework for our own show. We also have a show manual from the American Federation consisting of about 130 pages of very helpful information. This manual was started after the 1959 National Show that was hosted by the Oregon Agate and Mineral Society of Portland, Oregon. Since then each host society has added to the contents.

With all this information at hand, your steering committee is preparing the organization chart, policy file, and procedure outline covering all the duties and responsibilities for those who take part in running the show. These articles are about three-fourths done and are scheduled to be completed some time in December.

The report of the findings of the Steering Committee will be presented to the club membership in detail early in 1971 so you will each

(Continued)

BY WAY OF REVIEW....1970 Show Project

have a full account of what your committee has uncovered and discovered.

I personally discovered that the opinion of a great many club members around the country is that if the Lincoln Gem & Mineral Club decides to put on a show or take on a project, it will be the greatest.

Keeping in touch, Ralph Ulrich, Chairman  
1974 Steering Committee

FORT ROBINSON RECREATION AREA...Historical development, research facilities for the University of Nebraska, and general recreation for tourists are part of a plan considered by three state agencies directly involved in development of the Fort Robinson Recreation Area. Some of the activities included are a swimming pool, golf course, various kinds of overnight facilities, an Indian village, fishing, and a convention center. Also, activities would include the Fort proper, a working or demonstration ranch with horesback riding, and wagon and buggy rides, and other ranch activities, plus a system of hiking trails through the wood reserve. No time table has been set but one should develop as the plan is adopted. Recreation and history can exist side by side and historical zoning is being recommended so that buildings from the Fort that now exist will be best shown. It is hoped that they will be able to show people what the old Fort looked like, let them walk where the soldiers walked, and not concentrate structures for convenience.

(To those of us who know Fort Robinson and its "atmosphere" let's hope the historical aspects of the Fort will be retained. Ed.)

OPALS...GEMSTONE FOR OCTOBER...According to legend, the first opal was a woman who was loved by three gods. Their jealousy angered the Almighty who turned the woman into mist. In order to recognize her, the three gods loaned her their colors. The god of sun gave her his color, gold. The god of the heavens gave her blue, and the god of fire gave her red.. The Almighty then changed her into a stone, the opal, containing all these colors. Opals were the symbol of hope and purity, and were supposed to protect the wearer from illness. Sir Walter Scott created the myth that opals are unlucky in his novel, Anne of Geierstein, in which an opal caused his heroine great misfortune. - via Goodhousekeeping Magazine.

(How about that legend, Pappy? Have you heard that one before? Or do you have a favorite you might share with us? We value your experience and background with opal...write us a legend. Ed.)

SHOP HINT: To keep polishing buffs uncontaminated, cover with plastic bowl covers or shower caps, depending on their size. (Rock Ramblings)

FACT: The phenomenon of fluorescence is responsible for all of the television sets today. Every television tube is coated with fluorescent powder on which the picture is transmitted.

via Loess Bulletin

A FEW WORDS FROM YOUR NOMINATING COMMITTEE...The fiscal year of LGMC for 1970 is two-thirds over; the field trips are a memory; the swap and show are past events. All of these "happenings" have come about through the workings of your officers and the various committees. In retrospect it has been a good year, all things considered. Now we have election of officers for another year in the offing.

The club, any club, needs leadership. To acquire good leadership it would seem that a general knowledge of the mechanics of operation is important and that being involved and holding an office is the way to help make the club "go". Generally speaking the way to the top is through the ranks - that is, working up through the various offices. However, we have gotten into an awkward situation, through no one's fault specifically. Circumstances arise and are such that hinder the advancement of some persons. For the good of the club however, it would appear that we need the building blocks of leadership in officers advancing through various positions.

With this in mind, speak out at the meeting on Oct. 24. If the person that you think would advance to good leadership is not on the slate presented by the nominating committee, get that person's permission and nominate from the floor. Your nominating committee has formed a slate of officers. You are the voice of the people.

NEWS & NOTES....No doubt each of us has had some wierd experience in the aftermath of our early snow storm. We are thankful everyone came through with only inconveniences. Wouldn't it have been a dilly if the temperature had been near zero and the wind 30 miles per hour? It could have been worse!

As a member of the Civil Air Patrol, Roxie Hilton recently spent 10 days attending Cadet Officers School at Maxwell Air Force Base in Alabama. Classes were held in leadership and development of cadets. Numerous speakers included Chief of Staff of the Civil Air Patrol, U.S.A.F. Roxie hopes to pass information she gathered to cadets locally.

Loss of loved ones has occurred in the families of Tom Simmons, Delilah Rankin and Norma Miller. Our regards to all concerned.

Darline Sprick extends thanks to those who helped her during her hospital stay and convalescence.

Everett and Ruth Weber proudly attended the capping ceremonies of their daughter Judy as she finished the first phase of her Practical Nurses training. Congratulations, Judy!

And the Weber family was happy that Terry Weber could spend some time at home this summer on leave. He has now returned to Vietnam for further service.

Marie and Virg Carveth are looking forward to having Judy Weber as a house guest for a week in November while Judy fulfills some requirements at nearby Lincoln General Hospital.

October is a busy month for Irl and Lois Everett...they will even get to visit the Paintons in Oklahoma for a few days. Lucky people!

FACTS ABOUT AMBER....The Baltic Sea has long been dubbed the Amber Sea by the people living on its shores and not only by them, because Baltic amber has been exported to distant lands for centuries.

Science knows of thirty-seven places on earth where amber can be found but ninety per cent of the world's output is from the coast of the Baltic Sea.

Amber lies in your hand an iridescent, shimmering golden crystal, containing all the colors of the sun. It is the fossilized resin of coniferous trees that once grew on the continent of ancient Phennoscandia. The least incision on these trees brought forth a surge of resin which flowed down to the ground and soon hardened. Later it was submerged by a layer of earth, which in turn was covered over by subsequent strata. The sea which flooded the continent gradually retreated and changed the continent's outline. Thus, conditions appeared in the layers of the earth under which organic substances fossilizes instead of rotting.

Because the specific weights of water and amber are almost the same, amber can float in the water, even bob on the surface. Thanks to this quality in amber, the waves carry it ashore where it is a simple matter to gather and deliver to the craftsman.

Far more amber can be obtained by digging up the sea bottom and the coastline. Special vessels, reminiscent of dredges, dig the amber up with the sand from the sea bottom. Where the retreating sea has left generous spreads of amber in the layers of the "blue earth", the digging is done with powerful machines. There is one such quarry in the Kaliningrad region of the U.S.S.R., and a large amber-polishing factory in the area.

via THE PICK & DOP STICK

#### TERMS YOU SHOULD KNOW:

TENACITY...the resistance a mineral shows to breaking, bending, crushing or tearing. The following terms are used to describe tenacity:

Brittle...when a mineral breaks or powders easily.

Malleable...when a mineral can be hammered into thin sheets.

Sectile...when a mineral can be cut into shavings with a knife.

Ductile...when a mineral can be drawn into a thin wire.

Flexible...a mineral that can be bent but does not assume its original position after releasing the pressure.

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CLEANING SILVER: Use an aluminum pan with pre-soak BIZ. All that's necessary is to dip the tarnished silver in, rinse and wipe, and it comes out shiny and clean.

-----  
PRESTONE ANTI-FREEZE can be used in your slab saw as a cooling agent with no odor and will not rust your saw. No evaporation either.

-----  
via PSEPHITE

-----  
A WORD OF WARNING...grinding copper material, such as malachite and azurite, can be poisonous, especially if you grind dry, so good ventilation is a must. Copper poisoning causes severe headaches. Never work on copper materials for any length of time. Another material that is dangerous is abalone shell. It cuts easily and is very lovely but the fumes given off when grinding are treacherous.

-----  
Straddle-leg clothespins make good dop sticks. They are large enough to make for easy handling and can be set over the edge of a box.

Use a glass cutter to cut a thin slice of agate. It saves time and trim saws. via the LAPIDIARY

## METAMORPHISM AND CRUSTAL DEVELOPMENT

by Roger Pabian

## INTRODUCTION

Perhaps the most striking feature of the earth's crust are the folded mountain belts as the Appalachians, Coast Ranges, Urals, Alps, Andes, and Himalayas (Bucher, 1933, 1950).

Along these long and narrow belts great thicknesses of mainly marine sedimentary rocks, especially graywackes and shales, with intermingled basalts, have been subjected to compressional and tangential forces and have been crumpled and the beds have been thrust over one another to form elongate chains of folded mountains whose axes are essentially parallel to the resultant mountain ranges. Associated with and closely related to this folding is "metamorphism", which through increased temperatures and pressures and the introduction and removal of small concentrations of elements, has resulted in a considerable alteration of the mineralogies and textures of the original sediments and volcanics. Contemporaneous with, and sometimes after the deformation, plutonic rocks are introduced to the zone of metamorphism. These are of considerable importance in the development and crustal history of the earth.

Epiorogeny, which is a vertical uplift over a great area with little if any deformation leaves the continents in a position to be deeply eroded and through this many metamorphic rocks have been exposed to the eyes of prospectors and the scrutiny of geologists.

## TYPES OF METAMORPHISM

Turner (1948) and Turner and Verhoogen (1960) define metamorphism to be the mineralogical and structural adjustment of solid rocks to physical or chemical conditions which have been imposed at depths below the surface zone of weathering and cementation and which differ from the conditions under which the rocks in question originated. Read and Watson (1966, p. 147) consider metamorphism to be the changes that take place in rocks deeply buried in mobile belts when they are subjected to high temperatures and pressures and great chemical activity such that new minerals and textures suitable for the new environment develop. In either definition, each explicitly or implicitly indicated that metamorphism takes place below the zones of weathering and cementation and results in new mineralogies and textures. Hence, diagenesis and weathering, though once included (Van Hise, 1904), are now excluded from any definition or connotation of metamorphism.

Sutton and Watson (1966, p. 148 - 149) list three important types of metamorphism as follows:

i) Contact metamorphism is caused by the heat of igneous intrusions into the country-rocks which they invade. Large intrusions may produce a contact aureole of metamorphic rocks up to several miles wide, whereas dikes or sills may modify only several feet or inches of the country rock. The principal control of this type of metamorphism is thermal but stress and the escape of volatiles from the magmas may also be important.

(continued)

## METAMORPHISM AND CRUSTAL DEVELOPMENT (continued) by Roger Pabian

ii) Dislocation metamorphism takes place in rocks subjected to strong earth movements. Stress is the principal control and many of the products are cataclastic rocks.

iii) Regional metamorphism, which is most important in the development of the earth's crust, takes place in active segments of the earth's crust, especially the mobile belts where strong stresses and unusually high temperatures and pressures prevail. In these great fold belts regionally metamorphosed rocks occupy broad tracts many hundreds of miles in length. All of the metamorphic agents (i.e., pressure, temperature, stress, and chemically active fluids) work together to produce new rock types in these active belts.

Regional metamorphosed rocks are developed on very large scales whereas contact - and dislocation- metamorphosed rocks are generally of only local importance, and generally the complexity of the products of metamorphism increase in complexity as the size of the area metamorphosed.

To properly appreciate the significance of metamorphism it is both desirable and necessary to understand the developmental history of a geosynclinal belt. It is these regions the geologist must study to determine the events in the crustal development of the earth.

#### MODEL HISTORY OF A GEOSYNCLINAL BELT Generative and Developmental Stage

Mobile or orogenic belts are long, narrow tracts within which the earth's crust is subjected to abnormal activity, both tectonic and igneous. A newly developed mobile belt usually has a tendency to subside - as O. T. Jones has put it, "it gets a sinking feeling" - and therefore acts as a trap in which considerable thicknesses of sediment may accumulate (Read and Watson, 1966). Such a subsiding belt is known as a geosyncline and some present day oceanic trenches may represent mobile belts in this state of evolution. Such zones of weakness often develop at the margins of continental masses or between two such masses (Read and Watson, 1962, p. 648). As the zone of weakness continues to subside, sedimentary materials begin to accumulate. This sedimentation may be accompanied by igneous activity giving basic lavas and small intrusions, the ophiolites.

(continued next month)

NEWS & NOTES.....Congratulations are extended to the Floyd Olson family, members living in Phoenix, Arizona. They have a new little pebble pup name of Donald Lee who weighed in at 8# on August 11, 1970.

Best wishes to the Jerry Kohns in their new retail outlet at 70th & O Streets. Its a lovely new shop and very easy to reach.

Sincere "Thanks" to Norma, Marie and Frances for planning and programming our recent "Editor's Breakfast." It's a shame more of the club members did not make reservations for the 10th anniversary celebration of our own Pick & Shovel. It was so refreshing to share the comments of Dr. Gibson, Rev. Pfeiffer, and guest speaker Jack Curran, art Director of Nebraskaland Publication.

# Midwest Federation's NEWSLETTER



Published monthly except July and August as a service to member clubs  
All news, articles, subscription orders and requests for information concerning publication  
should be sent to P.O. Box 1130, Des Moines, Iowa 50311

Issue No. 109 - November 1970

## Liaison Officers

### THE PROBLEM OF COMMUNICATION

At every meeting of the Midwest Federation, officers or club delegates, the problem of communication is brought up. It was brought up by Armin Steinhauser, chairman of the Federation convention show in Minneapolis this year, who described his difficulty of getting preregistration blanks and convention information to the clubs. Additional mailings at heavy expense were required because of an apparent breakdown of communication that prevented club members from getting this information.

The Federation some years ago set up a system of liaison officers for clubs that wished to make use of it. The liaison officer is the person in the club who receives all Federation mailings for the sole purpose of bringing them to the attention of the club members at meetings. The subject may be a change in Federation-club relations, some opportunity open to members, some award for which the club may compete, some new book or magazine of interest, some new officers in the Federation with whom the club may do business.

But if the liaison officer does not report on all communications at board and general club meetings; if the liaison officers report is not a regularly scheduled part of the business of such meetings, there is a gap in communication between the club and the Federation. This operates to the disadvantage of both and especially to the disadvantage of the club member, who is thereby deprived of his contact with the hobby as a whole.

The liaison officer has an important role in club affairs and should be an honored officer who carries out his duties with a deep sense of responsibility. If he does not, it should be the duty of the club officers to replace him with a more energetic member.

## 1971 Blanks

### MERIT AWARDS

The Merit Award program of the Midwest Federation is one of its most highly regarded activities both from a public service as well as a public relations point of view. Such activities range in nature from educat-

### UNIFORM RULES BOOKS

A copy of the new AFMS Uniform Rules (Red Book) and a copy of the Approved Reference List of Lapidary Material Names has been mailed to all clubs. If these copies are not received by your club within a reasonable time, please write to P.O. Box 1130, Des Moines, Iowa 50311 and give the name of your club and the name and address of the person in your club who should have received the copies. Additional copies will be available and the price and place to address your request for the additional copies will be announced in the December Newsletter.

ional work with the blind and handicapped and with school children to displays in libraries and schools and cooperation with the Boy Scouts, 4-H clubs and anti-litter campaigns.

Last year 29 clubs sent in their applications for the awards, which were given out at the 1970 convention in Minneapolis. In addition, winners are eligible for American Federation national Merit Awards. Five Midwest clubs won such awards last year.

The awards to be given in 1971 will be for public service projects during 1970. Blanks for application for awards will be sent out by Mrs. Gail Alexander, education committee chairman, early next year. But now is the time for the clubs to assemble clippings, pictures, and other information in a scrap book or other type of exhibit so that the record of the club's community service will be ready for the Education committee's judgment.

A Merit Awards is a high honor that recognizes those clubs which have the energy and leadership to seek opportunity beyond their club's hobby activities to make the community in which the club operates a better place for members and everyone else. A Federation which has more than 220 clubs should be receiving applications for Merit Awards from half of its clubs, because most clubs

-continued page 2, bottom of column 1

## SCHOLARSHIP FOUNDATION REPORT

-by Katharine Steinbrenner, MWF Chairman

Congratulations to the following clubs that have reached the following standings:

- 500% State Line Gem and Mineral Society  
Show Me Rockhound Association
- 400% Kettle Moraine Geological Society  
Wabash Valley Gem and Mineral Society
- 300% Kyana Geological Society
- 200% Ishpeming Rock and Mineral Club  
Family Lapidary Club
- 100% Grand Rapids Mineral Society

This past summer several clubs made their first contribution to the Scholarship Foundation. Checks have been received from the proceeds of Wishing Wells or other ideas at club shows. Keep those dollars for scholars rolling in. Thank you.

### MEMBERSHIP REPORT FORMS

Clubs will be receiving forms in December for reporting membership to the Federation treasurer and for providing a list of officers and scheduled 1971 shows and other activities. These are for inclusion in the 1971 Midwest Federation Directory. New officers should make sure that the form is received and is promptly filled out and returned, as it is the basis for paying annual dues to the treasurer as well as of providing essential information for the Federation secretary and the Directory. This item is a preliminary reminder to expect the form. Further information will appear in the December Newsletter.

### Retiring Officers Duties

#### THE NEW CLUB OFFICERS

Many of our clubs follow the custom of the Midwest Federation of installing new officers in November, or of electing them in that month and installing them in the next month. There are some major advantages to the clubs that do this, such as having the names of the new officers ready for publication in the next Federation directory. Fall installation also allows the new officers to become active in the new year and at the time when the clubs are devoting themselves to indoor programs.

Retiring officers have obligations at this time to inform their successors about unfinished business and especially to turn over to them files of publications and other material received from the Federation during the year. If the club's liaison officer has been active, the new officers will already have been informed about

merit awards... continued from page 1

have done some work of this sort. Now is the time to review the year's activities and prepare to compete for a Merit Award. If the review finds no worthy service done, made a new year's resolution to be ready to be a winner in 1972.

many of these matters; if not, the retiring president may have much material which should be brought to the attention of the new president so that communication with the Federation is maintained. This is to the advantage of the officers, the club and the Federation, too. Of course, the retiring secretary and treasurer should make sure that their affairs are in order and are easily understood by their successors. Some clubs maintain a permanent file where minutes, treasurer's books and Federation publications are stored for reference and for historical purposes.

### 1970 MWF BULLETIN CONTEST WINNERS

The winners of the MWF Bulletin Contest as announced in Minneapolis, Minn. at the annual convention are as follows.

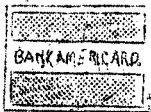
1. The Prospector - Muskegon County Rock and Mineral Ass'n. Nancy Schulze, editor.
2. Show-Me Newsletter - Show-Me Rockhounds Ass'n. Oliver and Betty Roskam, editors.
3. The Conglomerate - Michigan Mineralogical Society. Ellis Courter, editor.
4. The Pick and Shovel - Lincoln Gem and Mineral Club, Inc. Norma Miller, editor.
5. Rock Ramblings - Lake Shore Mineral and Lapidary Society. Joanne Cline, editor.
6. The Geode - McDonnell Gem and Mineral Society. Ralph B. Heitman, editor.
7. The Rockpile - Midwest Mineralogical and Lapidary Society. Joyce Hanschu, editor.
8. Ozard Earth Science News - Ozark Earth Science Club. Olive Knight, editor.
9. The Calumet Gem - Calumet Gem and Mineral Society. Paul W. Good, editor.
10. The Michigan Gem News - Michigan Gem and Mineral Society. Leon Maxwell, editor.

### A New Position Is Created and...

#### NEW DIRECTOR OF SUPPLIES APPOINTED

The work of the director of supplies and information has grown to the point that it will in the future be divided between two persons. Miss Dorothy Gleiser, 1066 Griffith Road, Lake Forest, Ill. 60045, will be director of supplies after November 1. All orders for Midwest Federation and American Federation publications and supplies should be ordered from her. Prices are given on page 15 of the 1970 Directory. Checks should be made payable to the Midwest Federation.

Verne Montgomery, 830 Sheridan Place, Downers Grove, Ill. 60515 will be director of information, responsible for providing state directors with material needed to carry out their work. He will also set up and operate Midwest Federation booths at club shows, answer questions about Federation affairs and be the liaison between the Midwest Federation and its official publication, Earth Science.



# CLAUS



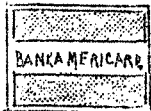
## LAPIDARY - CERAMICS

2639 WEST O STREET - PHONE 435-2300

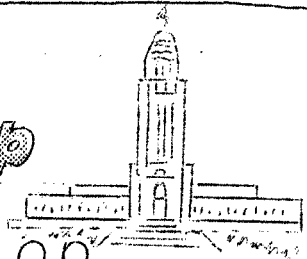
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# SIMMONS

## the jewell gallery



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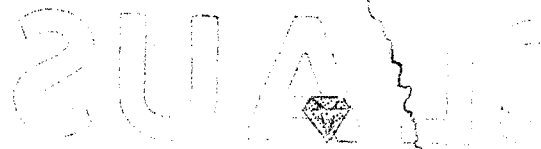
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0051-894 0107 To

Member:  
Community Arts Council

Maurice & Frances Tracy  
3601 South St.  
Lincoln, NE 68506

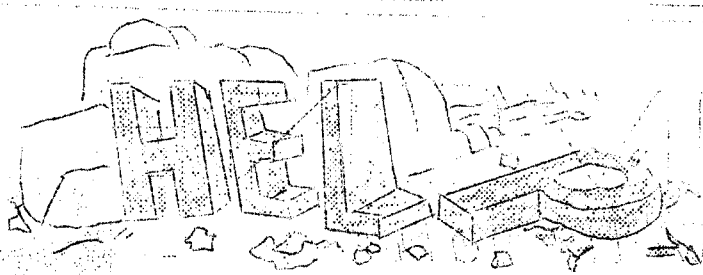
Lincoln Gem & Mineral Club Annual Show - September 26-27, 1970  
Pershing Municipal Auditorium

SAVE GENERAL MILLS COUPONS - AFMS SCHOLARSHIP FUND  
(each coupon worth one-half cent)

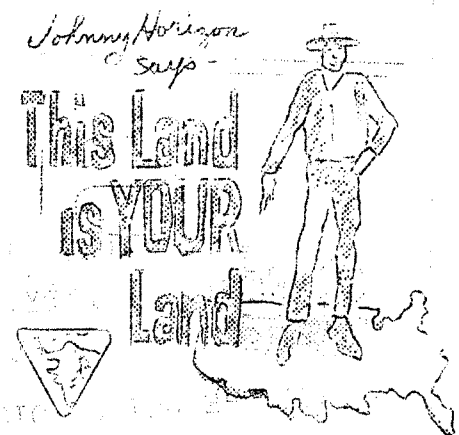
SAVE COMMEMORATIVE STAMPS - AID REFUGEE CHILDREN

USE CLUB AND FEDERATION EMBLEMS - STICKERS - PATCHES

THEME FOR 1970 - "CONSERVATION" - RUSSELL MACFALL, MWF PRESIDENT



HELP ELIMINATE LITTER PLEASE ....



KEEP IT CLEAN!