



PICK & SHOVEL

Inside.....Making Gem Trees
Food Chains

Volume 32 Number 9
May, 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 Schwartman , 1226 So. 24th, Apt. D, Lincoln, NE 68502	474-9441
Board Member: Craig Ten Hulzen , 167 Mormon Trail, Lincoln, NE 68521	435-6722
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 Schwartman
Jim Marburger
1 Year: Bob Wright
Linda Parks-Lundgren

STANDING COMMITTEES

Membership: Shirley Rockel
Education: Roger Pabian
Field Trips: Kevin Schwartman
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**MAY MEETING:**

DESSERT SUPPER, May 23, 1992,
Bethany Park Shelter House
Cotner and Vine Streets, 7:00 P.M.
Bring along your favorite dessert and
enjoy coffee, tea, and soft drinks that
will be furnished by the club.

PROGRAM

POSTER SESSIONS Hannan La Garry-Guyon
and Roger Pabian and Andy Zarins will give
the poster sessions they gave recently at
the North Central Sectional Meeting of the
Geological Society of America, Iowa City, Iowa.
Hannan's session will deal with paleoecology
of the Haynies Limestone at Weeping Water and
Roger's and Andy's with the stratigraphic
distribution of agates. Sessions will go on
simultaneously.

And that's not all! The annual gem dig will
take place too, so bring along some high-inten-
sity lamps, tweezers, sharp eyes, and small
containers to hold your priceless finds.

JUNIOR MEETING:

The youth group's meeting will coincide with
regular meeting and will be gem diggind and
visiting the poster sessions and enjoying the
dessert supper.

COMING EVENTS:

SHOW: Nebraska Mineral & Gem Club, Omaha, NE,
October 3, 4.

SHOW: Topeka Gem and Mineral Society, Topeka, KS,
October 10, 11.

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:

Thomas and Georgiann Jones, Alex, Kendra
2306 So. 113th
Omaha, NE 68144

FUTURE MEETING DATES, PLACES:

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

DISPLAY MATERIALS

Plumes, dendrites, and phenomenal stones such
as chatoyant or starred stones or stones with
other optical phenomena such as iris agate.

PRESIDENT'S MESSAGE

It's May again and time for summer vacation! We have had a very successful year over all, and I wish to thank all of you who helped make it so. When you read this, we will be preparing for our last meeting before summer. I urge you to come if at all possible and take part in the fun.

During the summer we will have various activities, now in planning, which we will be calling you about. If any of you have any ideas please call and let me know what you are thinking. We are thinking in the direction of a picnic and a couple of field trips.

In your travels this summer please be careful; we need you back in September!. Also, please follow the courtesy rules so we will be able to collect in years to come. I'll take this opportunity to wish you good hunting, and more important, good finding. If you can, take the opportunity to visit some of the many shows and swaps available in your travel area. It is frequently (always?) cheaper at a show than in the field; like buying your salmon at the store.

Have a good meeting and a glorious summer and let's get together again in September.

Dave

SCHOOL ACTIVITIES

Charles Wooldridge recently participated at the Q-125 Fun Night at Dawes School and demonstrated lapidary techniques, saying that the Nebraska outlines cut with the trim saw were very popular items. +++

Roger Pabian displayed Nebraska Gemstones at science fairs held recently at Park and Hartley schools. Many questions were answered and the visitors were amazed over the variety of gems that can be found in our state. +++

ON THE NPTV AUCTION

Every year about this time, Nebraska Public Television has its annual fund-raising auction. Items on the sale the weekend of May 2, 1992, included a silver necklace from JJ&L and a set of rock book ends from Custom Gems. Way to go, Jim, John, Eddie. +++

POSTER SESSIONS

Poster sessions aren't much different than what you might see at a science fair. The material is presented in a readable format with photos, graphs, charts, and other supporting evidence for the conclusions drawn by the investigator.

You then can read the material, judge the evidence, and ask questions or make comments to the investigators. The posters at the May meeting were originally presented at the North Central Sectional Meeting of the Geological Society of America, Iowa City, Iowa, on April 30 and May 1, 1992.

Each session lasts 4 hours and the investigators must attend their booth during the 2nd and 3rd hours to field questions from viewers. +++

LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - APRIL 6, 1992
Reunion 7:30 P.M.

Meeting called to order by President Heffelbower. Minutes were unani-
mously approved as read.

Treasurer's report was also given unanimous approval.

BILLS: Were presented and approved with a motion by Shirley Rockel,
and a 2nd by Roger Pabian. Carried.

Old business:

Still working on leaders for Sartar Hamann video.

Next year's Show - Possible video for Channel 10 of the previous year's
Show for promotion.

FINANCIAL:

Motion by Phyllis Parks that we make the \$ 2500. Show Emergency CD into
a \$ 5000. Show Emergency CD at best interest rate for a 10 or 12 month
period. 2nd by Shirley Rockel. Carried.

NEW BUSINESS:

Gold LGMC logo pins - can purchase 50 @ \$ 4.25 + tax. Board suggesting
sign-up sheet to see how many people interested in purchasing one before
we make order. If at least 30 people interested, then feasible to
go ahead and order.

Returning favorable questionnaire to NE Center and Pershing Auditorium
regarding service.

President has a "suggestion List of changes re: meetings, etc. Board
to think about these for discussion at next meeting. Pres. requested
permission to print sheet in Pick & Shovel. Granted.

MEETINGS:

Board - May 4th General - May 23rd at Bethany Park.

MEMBERS: For re-instatment:

Jurgens Family

Adam Mueller

John Abel

Bruce & Fern Simon

Ed & Connie Whyrick, Adam & Erin

Sandra & Russ McNiff

Motion for approval by Pam Killian, 2nd by Shirley Rockel. Carried.

NEW MEMBERS:

Jack Anderson

Gregg Brettmann

O D & Eunice Spencer

Motion by Phyllis Parks approval upon attending a meeting. 2nd by
Pam Killian. Carried.

Meeting adjourned.

Respectfully submitted,

Vera Lyman
Vera Lyman, Secretary

LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING - April 25, 1992
NCCE Scottsbluff-Minden Rms 7:30 P.M.

Minutes of Feb. Meeting - Motion for approval by Roger Pabian. 2nd by Billie Heffelbower. Carried.
Minutes of March Meeting - Motion for approval by Billie Heffelbower, 2nd by Irl Everett. Carried.
Treasurer's report approved with motion by Roger Pabian, 2nd by Charles Wooldridge. Carried.

Hospitality reported 26 members present. 6 Juniors and 8 visitors.

OLD BUSINESS: Subscriptions or renewals to Lapidary Journal through Club and Club retains \$ 6.00 on each.

NEW BUSINESS:

Letter from Sec. of State's office. All exempt corporations must pay \$ 150. by 6/2 . Motion to pay Corp. dues by Jim Parks, 2nd by Roger Pabian. Carried.

Aaron Hames has won Gemology Identification Award. Now eligible for National competition if he can raise \$ 500. for trip. To be taken up at Board Meeting.

Gold LGMC Logo Pins - signup sheet available.

COMMITTEE REPORTS:

Phyllis Parks reported on Show. Final profit figures not in yet due to outstanding bills, but will "better" last year's figures.

Any comments or 'critique' on the show, mail to P.O. Box--anonymously if you wish.

THANK YOU from Grace Carson for cards & Letters.

Emma & Helena need calls, cards or visits.

May Meeting - Double program - featuring Hannon LaGarry Guyon and Roger Pabian.

Meeting adjourned.

Respectfully submitted,

Vera Lyman
Vera Lyman, Secretary

LGMC Treasurer's Report April 1992

	NBC Checking 4-1-92	\$3155.89
Receipts:		
New Mamber Dues & Registration	27.00	
From Club Pins & Patches	14.50	
From Lapidary Journal Subs Comm.	12.00	
Suspense Lap.Jrl.Member Subs	<u>36.00</u>	89.50
Payments:		
1992 Show Expenses	112.60	
Susp.Gem Palette Subs	28.00	
Susp. Lap.Jrl.Member Subs	36.00	
April Pick/Shovel Printing	93.39	
March Meeting Rent	45.00	
Special Assessment Corp.to State	150.00	
Transfer to new Cert.Deposit	<u>1000.00</u>	1464.99
	NBC Checking Account Balance 4-30-92	\$1780.40

LINCOLN GEM & MINERAL CLUB, INC.

Balance Sheet December 31, 1991

ASSETS:

Cash on Hand		20.00
Natl. Bank of Commerce Checking		2665.43
Natl. Bank Commerce Money Market Acct.		1774.15
Natl. Bank Commerce Certificates Deposit		18251.12
First Federal Savings/Loan Money Mkt. Acct.		1203.79
First Federal S & L Certificate Deposit		5000.00
UNL Foundation Scholarship Deposit		350.00
Accounts Receivable P & S Ads		55.00
* '92 Expenses Paid in Advance		474.10
'92 Show Expenses Paid in Advance		450.43
LGMC Pins /Patches on Hand		38.75
Equipment 1950.92 less Deprec. 1864.26		86.66
Show Cases (Gless) 1210.38 less Depr. 1210.38		<u>0.00</u>
Total Assets		30369.43

LIABILITIES:

'92 Member Dues Paid in Advance		287.00
Advance Retail Dealer Fees '92 Show		2875.00
AFMS Scholarship Funds Collected		25.00
* LGMC Scholarship/Education Fund		361.12
* Junior Activities Fund		578.90
Suspense '91 Sales Tax Payable		263.93
Suspense Nolde Retirement Fund Scholarship		340.00
Suspense Gem Palette Subs & Exp. Payable		24.67
Net Worth 24188.19		
1991 Gain <u>1425.62</u>		<u>25613.81</u>
Total Liabilities		30369.43

*A Woodbury
Shirley Rockel*

* Separate Reports

'92 Expenses Paid in Advance		
Bal. Pd. on Officers Bond	52.00	
'92 Storage Rent Pd. Advance	360.00	
Prepaid '92 Swap Expense	<u>62.10</u>	474.10

[Signature]

Junior Activities Fund		
Bal. 1-1-91	378.40	
1991 Show Cash	<u>261.87</u>	640.27
Less Activity Expense	<u>61.37</u>	<u>578.90</u>

LGMC Scholarship/Education Fund	
Balance from 1990	255.52
Jan. Silent Auction	23.60
Donations from Members	<u>82.00</u>
	361.12

LINCOLN GEM & MINERAL CLUB, INC.

Operating Statement December 31, 1991

INCOME:

1991 Membership Dues & Registrations	827.00	
** 1991 Annual Show Gain	2628.82	
* 1991 Interest on Savings	1473.32	
January Swap Surcharge on Bucks	87.59	
Donation to Education Fund for Books	100.00	
Total Income		5116.73

Expenses:

* Dues to Organizations	165.40	
* Memorials, Curtesy, Donations	99.15	
Grants to UNL Geology Students	350.00	
* Social Hour at Meetings	428.65	
Rent for Meeting Sites	410.00	
Rent For Storage of Property	360.00	
Insurance Club Liability	150.00	
Premium Officers Performance Bond	100.00	
* Pick & Shovel	1120.63	
F. O. Box Rent and Bulk Mail Permit	124.00	
* Miscellaneous Expenses	339.94	
Depreciation on New Purchases	43.34	
Total Expenses		3691.11
Net Operating Gain for 1991		1425.62

* Separate Reports

** Separate Sheet

1991 Interest on Savings -	
NBC Money Market	127.59
NBC Cert. Deposit	959.82
First Fed. Cert. Dep.	362.50
First Fed. Money Mkt.	23.41
	<u>1473.32</u>

Social Hour at Meetings -	
Anniv. Cake	25.00
Show Set-up	64.73
Gen. Meetings	180.96
Christmas & Decor.	157.96
	<u>428.65</u>

Dues to Organizations -	
Midwest Federation	86.00
Nebr. Assn. Earth Sci.	29.40
Friends State Museum	50.00
	<u>165.40</u>

Miscellaneous Expenses -	
Pres. & Rockhound Awards	99.59
Secy. Expense	15.89
Treas. Rct. Books, Exp.	41.19
Who's Who	24.18
Annual Swap	45.06
Programs	57.97
Corp. Fee-2 years	20.00
Postage	17.70
Misc. Expenses	18.36
	<u>339.94</u>

Memorials, Donations, Curtesy -	
Mem. Check	15.00
Geology Dept.	25.00
Mem. Scholarship	50.00
Cards & Post.	9.15
	<u>99.15</u>

Pick & Shovel -	
Expenses-Mailing	343.75
Printing	846.83
Copies	10.05
	<u>1200.63</u>
Income -2 ads/8 issues	80.00
Net Expenses	1120.63

LINCOLN GEM & MINERAL CLUB, INC.

33RD Annual Show Report-March 16-17, 1991

INCOME:

Retail Dealer Space (13)	\$ 3250.00	
Demonstrators Space (2)	50.00	
Gate Admission -	4186.00	
Rock Races	39.91	
		\$ 7525.91

EXPENSES:

Floor- Rental	1893.00	
" Signs, cover, mis.	365.40	2258.40
Recognitions		149.00
Security		288.00
Advertising-Media		608.67
Flyers		125.45
Discount Cards		176.97
Hand-out Programs		242.82
Insurance(part of full year prem.)		50.00
Special Features		200.00
Lecture Programs		150.00
Saturday Evening Dinner/Decor.		319.25
Display Case Repair		27.18
* Misc. copy, tickets, etc.		37.42
State & City Sales Tax on Gate		263.93
		\$ 4897.09
		\$ 2628.82

Net Gain on Show

* Misc. Expenses:

New roll tickets	7.99	
Rock Race Exp.	4.45	
Dedication	4.79	
Contest	11.84	
copies	8.35	37.42

Junior Members miscellaneous activities & sales	261.87
UNL Geology Club Gem Dig (after expenses)	209.00
State Association Silent Auction for Gem Palette	134.65

Attendance -

Saturday - 1045 @ 2.00 plus 366 @ 1.50	= 1411	- \$ 2637.00
Sunday - 572 @ 2.00 plus 270 @ 1.50	= 842	\$ 1549.00
Totals - 1617	636	2253 \$ 4186.00

Several Scout, Girl Scout, School Groups with leaders free

LET'S HEAR IT FOR:

DWIGHT MILLER who was recently honored as an outstanding individual volunteer by the Volunteer Recognition Task Force and the United Way Volunteer Center. Dwight was nominated by the Lincoln Literacy Council for his work in tutoring students in literacy and English as a second language and for keeping student and tutor lists updated for many years. +++

AARON HAMES for his recent achievements in science fairs with projects based on earth sciences. (More on page 5) +++

WINNER'S CIRCLE

The following people were winners in Sartor-Hamann Jewelry's "Ident-A-Stone" contest at our show on March 21 and 22.

1st Prize, Cultured Pearl Earrings, G. E. Jones, Omaha.

2nd Prize, Black Hills Gold Pendant, Dan Pabian, Wahoo.

3rd Prize, \$25.00 Gift Certificate, Kathy Ramsour, Aurora.

Junioir Winner, Topaz Crystal. Aaron Hames, Lincoln.

Thanks to the contestants for their entries and to Sartor-Hamann and Bob Fixter for their contribution. +++

AFMS CODE OF ETHICS

Since field trip season is upon us and since we havent published these for a few years, let them serve as a reminder to old timers and a primer to new comers that we have an obligation to others to help keep lands open for all activities.

The American Federation of Mineralogical Societies
Code of Ethics

I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.

I will keep informed on all laws, regulations, or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of the property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind—fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.

I will discard no burning material—matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field trip leaders and those in designated authority in all collecting areas.

I will report to my club or federation officers, Bureau of Land Management, or other proper authorities, any deposit of petrified wood or other material on public lands which should be protected for the enjoyment of future generations for public, educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule," will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and "Public Image" of rockhounds everywhere.

1993 SHOW

I would like members to let me know what committees they wish to chair or be part of for the 1993 show. Please call me at (402) 477-4337 in the late evenings (9:00 PM to 10:30 PM) or drop a card (3015 Orchard, Lincoln, NE 68503). I will be having a short organizational meeting before summer. Francis Belohlavy.

IDEA AND EXPERTISE GROUPS

I am trying to organize one or more small groups for the purpose of getting together and exchanging ideas or passing knowledge along about lapidary. I need your input about groups you might be interested in joining or leading. Some suggested groups have been silversmithing, faceting, cab cutting, and fossil preparation. Please drop a card to Francis Belohlavy, 3015 Orchard, Lincoln, NE 68503, with your ideas. Hopefully a group will be ready next fall or maybe even sooner. ++

APRIL MEETING

The April Meeting proved to be a very hot bed of activity from the very beginning. The youth group started off with a session on making gemstone trees that was very ably chaired by Kevin Schwartman. Youth participating ranged in age from about 8 to 80 and participation continued until we vacated the meeting room.

After the regular business meeting we viewed the video on "North American Gemstones" that was narrated by Efrem Zimbalist, Jr. (a.k.a. Don Alejandro de la Vega). The video was generally speaking quite good but I felt the stuff about mystic powers of gems got somewhat overplayed and should have remained in the folk lore category rather than presented as possibilities. With that sole exception, I highly recommend this video to other clubs.

Display material for the evening was faceted stones and faceting rough and the cases were overfilled, with about a dozen members participating. Examples of about every facetable stone from apatite to zircon were on hand and shown as cut stones and corresponding rough in many cases. I was able to note the following participants: Mr. and Mrs. O. A. Spencer, Jim and Phyllis Parks, Dave and Billie Heffelbower, Charles Wooldridge, Fred Holbert, Eddie Ridge, and myself. I am sure that there were a couple more exhibitors whose names I did not get and my apologies to them. RKP

MORE CASES NEEDED AT MEETINGS

The good news is that the Show and Tell sessions of the past three meetings have had a large number of participants. We have been able to see a lot more material and many different ideas. The bad news is that the material is overflowing the cases. If any other exhibitors who are participating in the Show and Tell have any light weight cases and lights that they can bring, please do; they would be appreciated. ++

LG&MC YOUTH NEWS

By Pam Killion

Aaron Hames, one of LG&MC's youth group members recently won a gold medal for rock and fossil identification at Nebraska's State Science Olympiad competition. Aaron, an eighth grader at Irving Junior High helped his twelve member team with the state championship by being awarded two gold medals and two 5th places in the Olympiad. (1st, rocks and fossils; 1st, science dictionary; 5th, oratory; 5th, measurement).

Aaron's team is eligible to compete nationally in Auburn, Alabama, on May 15, 16. He prepared for the contest by studying books at home and practicing after school with other contestants. Aaron admits that being a LG&MC member helped him have an advantage in the competitions.

At the state contest Aaron could use a penny, nail, glass plate, a streak plate, and acid to help identify rocks. Some of these same methods were taught to Aaron by Jan Wright at the LG&MC youth meetings.

The favorite things about belonging to LG&MC for Aaron are field trips, all the people who help him learn and the yearly gem and mineral show. Each year Aaron has belonged he and his family have helped with the youth activities. This year he not only found a cut sapphire in the gem dig but also won Sartor Hamann's topaz by guessing the closest weight.

Preparing for the National Science Olympiad has included visiting the UN-L Geology Department to ask questions and to borrow books. He states his biggest obstacle to helping his team is to raise money to fly to Atlanta since the school has no funds to support this academic competition.

+++

AN EVENT YOU CAN'T AFFORD TO MISS!

JOIN OUR DOWN-TO-EARTH GROUP OF
YOUNG ROCKHOUNDS FOR THE

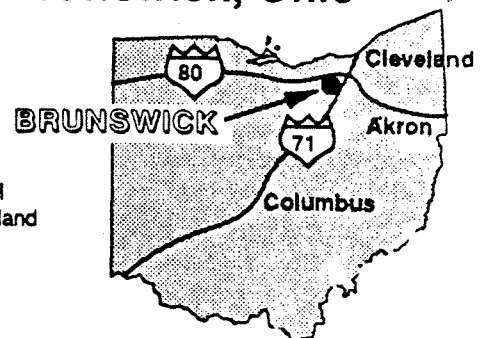
1992 Combined AFMS & MWF Show

July 23rd, 24th, 25th, and 26th, 1992
at Brunswick High School, Brunswick, Ohio

SPONSORED BY:

GREATER CLEVELAND FEDERATION SHOW COMMITTEE, Inc.

- The Geology Society, Brunswick High School
- Chippewa Gem & Mineral Society
- Heights Gem & Mineral Society
- Lake Shore Mineral & Lapidary Society
- Medina County Gem & Mineral Society
- Micromineral Society of CMNH
- Mineralogical Society of Cleveland
- Parma Lapidary Club
- Rockport Lapidary Club



For information,  write to:

SHOW CHAIRMAN:
Rose Blue
16155 Shumer Rd.
Strongsville, OH 44136

EXHIBITS CHAIRMAN:
Dick Green
1745 13th St.
Cuyahoga Falls, OH 44221

ROCK TREES by LG&MC YOUTH

By Emily Rieur

The rock trees were taught by Kevin Schwartman. He is a terrific tree maker! Kevin showed us some of the trees he has made.

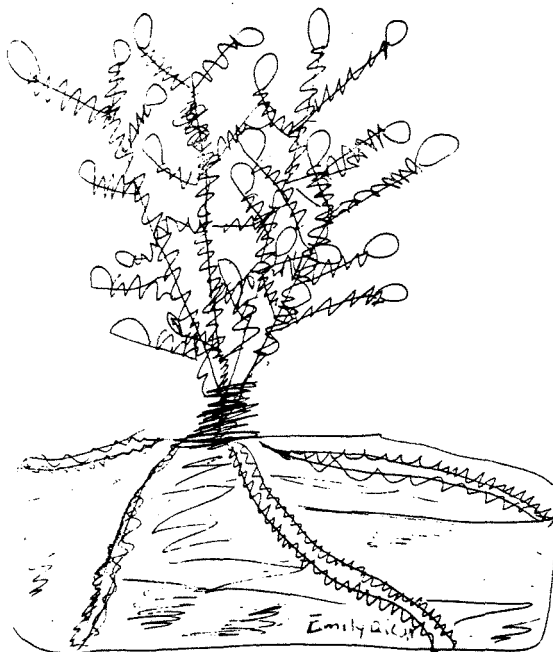
How to make trees:

1. Twist the wire with a hook to make branches. (24-28 gauge wire)
2. After all the branches are twisted, twist the branches together.
3. Wrap wire around tree to make a trunk.
4. Wrap the root wire around a rock base. Twist it at the bottom and glue. Clamp with rubber bands.
5. Glue stones to the branches. (small ones)

My gold tree has petrified wood at the base. (see illustration) I used small pieces of tiger eye and quartz. One person made a copper tree with tourquiose chips. We could choose from peridot, red garnet, colored shells, rose quartz, mixed quartz, and many more pretty stones. We also could pick copper, goldtone or silvertone wire.

Thanks, Kevin!

+++



EMILY'S ROCK TREE

MEANWHILE, BACK AT THE PALEOECOSYSTEM

By Roger K. Pabian

The last time we talked about epizoites and means of housekeeping that were set up by any number of various fossil organisms in their environment or paleoecosystem. Ecology is forever---so long as there are life forms around. An ecosystem has existed ever since the first living organisms appeared on earth. Until relatively recently, scientists thought that all ecosystems were based on plants or algae photosynthesizing and producing oxygen and proteins and carbohydrates for animals to eat. No light, no Carbon Dioxide, no photosynthesis, no ecosystem. We know better now. Deep sea expeditions to undersea volcanic vents have shown that complex ecosystems exist on bacteria that subsist on Sulfur based compounds that are products of the vulcanism. There is no light at these depths for photosynthesis to take place.

Producers are those organisms that form the base of the food chain and we now know that they can be algae in the photic zone where photosynthesis takes place and bacteria in the aphotic zone where photosynthesis does not take place. Most of the oxygen and proteins that become available to the "consumers" are produced by algae that form the base of marine ecosystems. Oxygen and protein are also produced in terrestrial ecosystems such as grasslands and forests.

The consumers can be arranged in a pyramidal structure with the lowest members of the food chain, herbivores such as copepods and amphipods, forming the lower levels of the pyramid. These low levels on the food chain usually make up the greatest biomass (weight) in the ecosystem. A square mile of marine water above the photic zone may contain several thousands or millions of tons of copepods and amphipods. The next level on the food chain, say, small, herbivorous arthropods or fish, will contain a much lower biomass than the lower level of the pyramid. A bit higher in the pyramid, some of the lower carnivores appear and they feed on low level herbivores, and they make up even a smaller portion of the total biomass of the ecosystem. Through several more levels of the pyramid we get higher order herbivores and carnivores and each level has a correspondingly smaller biomass. Finally, we reach the "top carnivore," the most feared member of the ecosystem. In modern seas, the top carnivore is something like a great white shark or a killer whale. In the paleozoic seas that often covered Nebraska and the great plains, sharks such as symorriids likely held the top carnivore spot.

Each of these different levels contained organisms that had developed specialized "feeding strategies" to survive. Some of the lower level feeding strategies included "suspension feeders" or animals that collected food particles that were suspended in the water column above. These particles may have been living organisms such as protozoans or algae or may have been decomposed matter from dead plants or animals. Suspension feeders are non-specific and they may function as low-level carnivores (eating protozoans or larva of other animals) or as a scavenger (eating dead matter). Creatures falling into this category include sponges, bryozoans, brachiopods, clams, and crinoids to mention a few and even some fish.

Another level in the food pyramid include the deposit feeders. The deposit feeders are mud grovelers that eat the mud from the substrate or sea floor. They, too, are usually non-specific feeders that may get small organisms as well as dead matter in their diets. Included here are some kinds of clams, echinoids, probably trilobites, and annelid worms. Their digestive tracts simply extract the nutrients from the mud and their activity can often be observed by churned up sediments that are readily apparent on polished surfaces of limestone or other sedimentary rocks. Such activity is called "bioturbation."

Carnivores eat the living animals that they catch with specialized jaws, pincers, tentacles, etc. A paleoecosystem in the Pennsylvanian of Nebraska would have had a carnivore complement of corals, jellyfish, concaviculariids, shrimp, star fish, bony fish and sharks and others.

You might have noticed by now that the evolutionary complexity of an animal tells us nothing about where it might fit in the food chain. Some highly evolved animals such as trilobites and some fish were likely scavengers or low level herbivores whereas some lowly animals such as corals are carnivores.

This should also help you to understand why lower level organisms in the food pyramid more commonly occur as fossils. There were simply more of them. It is not uncommon to run across a bed of limestone that is made up almost entirely of fusulinids, a large protozoan. It also tells us why highly evolved organisms such as crinoids can make up the bulk of thick limestone beds that formed in the mid-continent during the Mississippian. They were low level feeders that had a large food supply and could develop a large biomass.

Generally, the top carnivores will be the scarcest organisms in the fossil record of marine ecosystems. There were the fewest of them. Those carnivores that fed at lower levels such as pavement tooth sharks that could crush shell of clams or brachiopods are often more common because they had a larger biomass to feed on.

When we look at the fossil record in the sense of an ecosystem, it makes a lot more sense than if we try to treat the fossils individually as a taxonomic (classification) group. That is why that when we are studying fossils we must consider the environments in which the plants and animals lived and how eating and being eaten has effected this record.

This also gives us the opportunity to see a fossil as a dynamic member of a community of organisms that were interdependent on oneanother and that had a food chain based on producers that gave food and oxygen to first lower and then successively higher level consumers. We really can't understand fossils so long as we treat them simply as interesting curiosities. We need to look at them in terms of total paleoecosystems that were very different from modern ecosystems in content but very similar to modern ecosystems in energy production and consumption.

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GEOTRIVIA

The terms blue cheese and Roquefort salad dressings are used almost interchangeably. This should not be as blue cheese is aged in sandstone caverns of Cambrian age whereas Roquefort cheese is aged in limestone caverns of Cretaceous age. The bacteria producing the two cheeses are not the same.

Take heart, lovers of the above dressings. A good mock sour cream can be made with 12 oz. cottage cheese, 4 oz. buttermilk, and a bit of lemon juice. Blend and age for a couple of days. Only 10 calories to the tablespoon compared to about 100 for the real thing.

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A BIT MORE 1992 SHOW A Report, Final Thank You and on to 1993!!

I still have not located the Friday List that David prepared for me as Set-up began so if I forget someone please know that I had too many hats, and my head was sort of in the clouds at the terrific response from our club members and from my family as well. Each and every one of you that took time from your own jobs and assisted in getting our show ready for viewing should receive a special commendation. Your prescence and your hard work in covering tables, setting up cases and helping put them in place was a big boost for the various chairmen who also worked very diligently. Francis, Jerry, Charles, David, Lynn, Jim P., Jim M., Pam, Rennie, Shirley, Bill, Marie T., Marie W., Roger, John A., Ralph & Rosalee, John L., Adeline, Craig, Jim N., Mike, Betty & Bill W., Billie, Kevin,, Kathy, and of course, non-members Mrs. Belohlavy, Michael & Pete Crawford,(my sons.)

Again **special thanks**, to the 8 A. M. Friday crew that met at the storage unit and had all of our props loaded and ready at Pershing when we were admitted at 9 AM. Those who made the coffee and tea and brought the treats and kept them ready throughout the day, to those who spent break periods folding the hand out programs, running messages, and most especially **helping tear down cases and hauling the props back to storage!**

A very special commendation to our 'Lady of the Tickets' Vera who sits in the **hot spot** for hours on end and has everything organized so there is no room for error, who tends the incoming crowds as speedily and cautiously as possible and presents an impeccable report at the close of the Show. This years report:

Saturday-	548	Discount	tickets,	859	regular	tickets=	1407	paid
Sunday	321	"	"	635	"	"	956	"

20 complimentary tickets were used Saturday and 18 on Sunday

10 youth groups with their leaders attended Sat. and 2 Sunday

Of the Saturday discount tickets 156 were from flyers and 392 from the newspaper. Sundays were 93 from flyers and 228 newspaper.

Of the Youth Groups there were 4 school groups, 3 Campfire and 2 Girl Scout plus 2 Cub Scout groups

Once again Thanks! to a wonderful Committee, to the very helpful club members. I hope the attached semi-final report will make you as pleased as I am. pnp

* * * *

Reminder-- JJ&L would like to remind all LGMC Members of the Big Auction coming up on Sunday June 7th of much of Mr. & Mrs. Laverne Jess of Scotia's collections.. Viewing at 8 AM, Sale at 9 at the St. Paul, Ne. County Fair Grounds. John sez lots of ruff, spheres and much more. That is Sunday June 7, 1992 at St. Paul.

1992 Show - Financial Report as of April 30, 1992
 (Subject to year-end audit)

INCOMES:

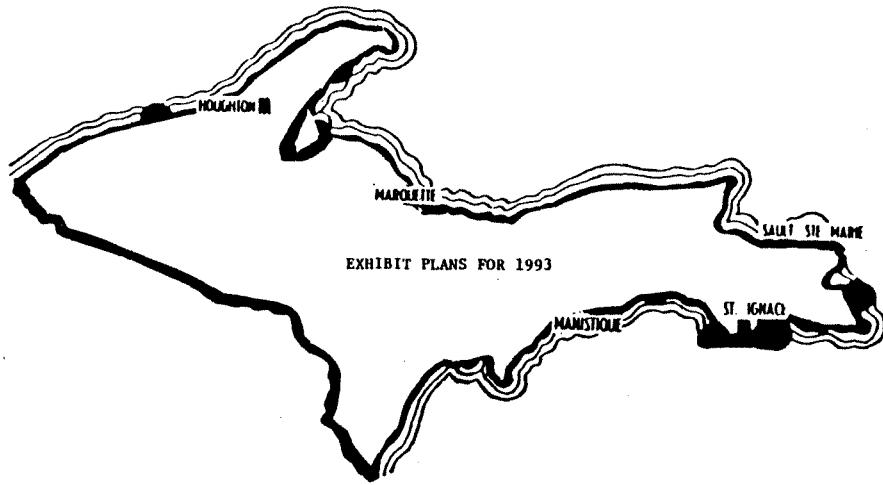
Retail Dealers (14 @ 250.00)	3500.00	
Paid Demonstrators	50.00	
Rock Races Gross	71.81	
Gate Admissions-Sat. 2540.00		
Sun. 1751.50	<u>4291.50</u>	
Total Incomes:		7913.31

EXPENSES:

Floor Rent and Drapery	1924.80	
Floor-table cover 64.11		
Insurance 50.00		
Security 288.00		
Miscellaneous <u>90.05</u>	492.16	
Publicity	821.64	
Recognitions	94.23	
Hand-out Programs	194.07	
Sat. Eve. Buffet	291.95	
Speakers/Slide Shows	200.00	
Special Features/Exhibits	.00	
Dealer Chairman Expense	11.18	
Demo Chair Expense	.00	
Special Activities-Gem Dig	50.00	
Competition	91.15	
Rock Races	15.20	
Chairman Expenses	50.85	
Miscellaneous Expense	<u>53.94</u>	
Nebr. Sales Tax on Gate	274.77	
Total Expenses		<u>4565.94</u>
Gain on 1992 Show		3347.37

Other Activities at Show:

Youth Group Wheels/kits etc.	418.55
Gem Dig-UNL Geology Club	278.00 net (Purchased 40.00 material from club)
Sealed bid auction of donated saw for club fund	175.00



At the 1993 FIELD TRIP CONVENTION in Michigan's Upper Peninsula, there WILL be competitive exhibits.

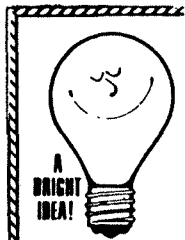
While this is particularly for the benefit of exhibitors from that area, competition is open to members of clubs throughout the Midwest Federation, and all of the possible trophies may be won.

There WILL NOT BE NON-COMPETITIVE exhibits, but the SEAMAN MINERALOGICAL MUSEUM'S collections regular exhibits will be open for viewing and admiring of their many world-class specimens.

SO, if you have a non-competitive exhibit, plan to enter it in the 1992 show, or wait until 1994. If you dare to compete, every year brings a new competition, and opportunity for learning.

Anne Cook
Uniform Rules Chairman

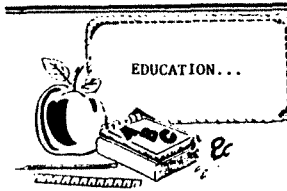
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MORE BRIGHT IDEAS

Warren Reed, Eureka, Illinois, has this method for reusing saw oil. Place a paper bag into a wire basket (the kind used for deep drying). Pour the dirty oil into the bag and let it stand until all the oil is drained out. The oil can be used again, and the shopping bag can be thrown away.

THANKS...to John Boland
VIA.....the Rock Ledger



Introducing EARTH—a new magazine for exploring the endless wonders of our planet.

EARTH is a new magazine with the aim of presenting "what humans know about the planet we live on, and giving the reader the intellectual tools for getting to know that planet better than ever before". The Editor, Steve Zaburunov, was a field geologist before becoming a writer. Articles in EARTH will span the spectrum of the earth sciences - including geology, mineralogy, meteorology and anthropology.

The premier issue (January 1992) has articles on the New Madrid Rift Zone, Digital Shaded-relief Maps, The Carbon Dioxide Cycle, Salt and a Field Trip to Big Bend National Park. The March 1992 issue has articles on Krakatau Volcano, Climate and Evolution, New York City's Geology, Peat, Light From Rocks (Triboluminescence and Thermoluminescence) and The Astronauts View of Clouds. I've read the first two issues and found both very interesting and well written, if the following issues equal the first two, EARTH will be well worth the subscription price.

EARTH will be published six times a year by the Kalmbach Publishing Co. of Waukesha, WI. The subscription price is presently \$14.95 (1/24/92). This is a special promotional price, but in a phone call today to the publisher I was assured they will honor it for a couple more months. To order call 1-800-446-5489 on weekdays between 8:30 AM and 5 PM CST, or write P.O. Box 1612, Waukesha, WI 53187.

Joyce Hanschu
MWF Education Chairman

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KIDS ARE OUT FUTURE!!!

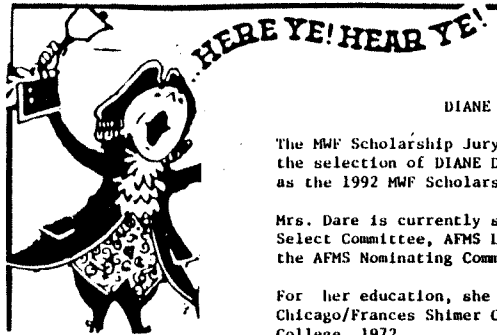
In October, 1991, I printed a 'blurp' about the Shell booklet...names and numbers have been misplaced,

I have had several requests for the 'name' of the booklet, and the phone number to order the Shell booklet entitled...

"Let's Collect Rocks and Shells"

Phone: 1-713-241-4552

I have also received information, that this is now a recording, guess you just tell 'it' what you want, and they are shipped.



DIANE DARE NAMED HONOREE

The MWF Scholarship Jury of Awards is proud to announce the selection of DIANE DARE, immediate Past AFMS President, as the 1992 MWF Scholarship Honorary Awardee.

Mrs. Dare is currently serving on the AFMS President's Select Committee, AFMS Long Range Planning Committee, and the AFMS Nominating Committee.

For her education, she was an early entrant to the U of Chicago/Frances Shimer College, 1952, and Kaskakia Junior College, 1972.

She has been involved in the Midwest Federation for many years. Diane is currently the MWF Historian, and serves on the MWF Directory, and Paleontology Committees.

For honors, in 1989, was given the Education Thru Sharing Award for the MWF and AFMS.

Diane has judge for Bulletin & Article Contests since 1978 for both AFMS and Regional Federations, been speaker at various Editor Breakfast and Seminars, published in Lapidary Journal, Gems & Minerals and Earth Science magazines. She has edited the monthly Roadside Naturalist bulletin from 1975 to 1990.

Club/societies that Diane is a member of are, Southern Illinois Earth Science Club, Earth Science Club of Northern Illinois, Rolling Rock Club, Ye Old Timers Mineral Club, and SCRIBE.

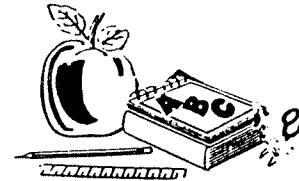
Mrs. Dare will have the privilege of selecting a school, or schools, and assisting in the selection of two students who will receive scholarship grants from the AFMS Foundation, to help them achieve their educational goals. Each grant will be for the school years 1992-93 and 1993-94, and is for \$2,000 each year, a total of \$4,000 for each student, to further their studies in the field of earth sciences.

If your club would like to submit the name of a candidate, forward it to the MWF 1st Vice President, along with letters of recommendation, and the candidate's resume' or vita. Include mention of things which the candidate has done for rockhounds, and the general public.

HERE YE! HEAR YE!

HERE YE! HEAR YE!

HERE YE! HEAR YE!



DID YOU KNOW?

THE GERALD E. EDDY GEOLOGY CENTER - WELL WORTH A VISIT

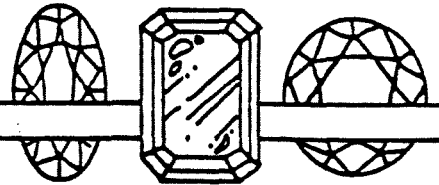
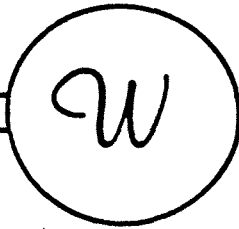
Located in the rolling hills near Chelsea, Michigan, the Gerald E. Eddy Geology Center introduces visitors of all ages to the science of geology, with emphasis on Michigan rocks, minerals, fossils, glacial information and stories of mining from prehistoric times to the 20th century.

The Center features displays, hands-on exhibits and a nine-projector slide presentation, a learning center with exhibits on the area's natural and human history, wildlife and a variety of seasonal exhibits. Many of these are aimed at children. There is a gift shop with quality reference books, field guides, stationery and children's items relating to geology and Michigan's natural history.

Outside the Center are many specimens of interesting "large" rocks and seven well laid out hiking trails, including a one mile geology trail. This trail displays the geologic story of the area as seen through its hills, soils, rocks and minerals. The walking is easy through glacial moraines and kettle lakes. The woods surrounding the Center are beautiful at any season and this Center will be worth a visit any time you are in the area.

The Eddy Geology Center is open year-round. There is no charge for admission, but a Michigan State Motor Vehicle Permit, which can be purchased at the Center, is required for entry. The Center is located in The Waterloo Recreation Area, on Bush Road north of I-94, between Jackson and Chelsea. Take exit 159 north and follow the signs. For more information write the Center at 16345 McClure Rd., Chelsea, MI 48118, or phone (313) 475-3170.

Joyce Hanschu
MWF Education Chairman



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Advertising by a rock-hobby business or interest is permitted with the approval of the Board, at a rate now set at \$15.00 per full page per insertion, paid in advance.

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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