

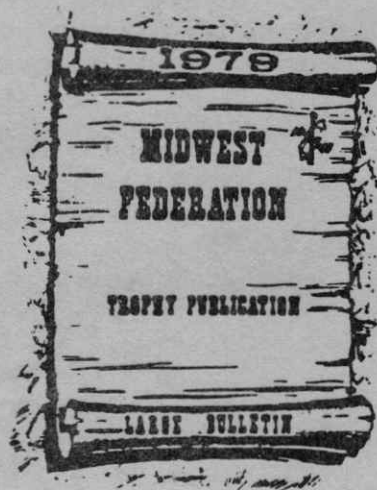
THE PICK & SHOVEL



November 1983

In this issue

Nominating Committee Reports
TODD VALLEY - ANCIENT AND MODERN
Brazil - Fortification Agates



OFFICIAL PUBLICATION OF

Lincoln Gem and Mineral Club, Inc.

P. O. Box 5342

Lincoln, Nebraska 68505

LINGOLN GEM AND MINERAL CLUB, INC.
P.O. BOX 5342, Lincoln, NE. 68505-0342

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.

MEMBER: American Federation of Mineralogical Societies (AFMS)
Midwest Federation of Mineralogical and Geological Societies (MWF)
Nebraska Association of Earth Science Clubs, Inc. (NAOESCI)
Nebraska Academy of Sciences (NAS)
Community Arts Council of Lincoln (CAC)

Regular Meetings: 4th Saturday of the month, September thru May; 7:30 P.M.
At Nebraska Center, 33rd & Holdrege

1983 ELECTED OFFICERS:

President.....	Howard Taylor, Jr.	910 New Hampshire	Lincoln, 68508	476-3707
1st Vice Pres....	Glenn Lyman	420 N. 56th St.	Lincoln, 68504	464-6089
2nd Vice Pres....	Claude Scott	4917 Normal Blvd.	Lincoln, 68506	488-0739
Secretary.....	Gail C. Scott	4917 Normal Blvd.	Lincoln, 68506	488-0739
Treasurer.....	Phyllis Parks	2435 S. 19th St.	Lincoln, 68502	476-6798
Board Member....	John Abel	2829 Van Dorn	Lincoln, 68502	423-7654
Board Member....	Florence Boring	2836 S. 40th St.	Lincoln, 68506	488-6243
Board Member....	Virginia Green	6120 The Knolls	Lincoln, 68512	423-5032
Board Member....	Frank Rule	6333 Kearney	Lincoln, 68507	466-1697

Nominating Committee -- 3 years: Richard Haney, Wilfrid Wittman
2 years: Vera Lyman, Frank Rule
1 year: Marie Taylor, Jim Parks

LONG RANGE PLANNING AND BY LAWS COMMITTEE:

1 year - Jim Parks, Phyllis Parks
2 years - Marie Taylor,
3 years - Roger Pabian,

STANDING COMMITTEE CHAIRPEOPLE:

Programs.....	1983 Show.....	John Abel	
Education/Publicity.	Roger Pabian	MWF Liaison.....	Marie Taylor
Hospitality.....	Refreshments/Party...	Marj Heedick	
Historian.....	John & Lillie Lewis	Scholarships.....	Marie Taylor
Librarian.....	Jim Parks	Outside Displays.....	
Membership.....	Bob & Mary Walker	Housing/Property....	Claude Scott
Field Trips/Safety..		Editor.....	Vera Lyman
Sunshine Corner....	Susan Taylor	Junior Activities....	
NAOESCI Reporter....	Vera Lyman	'83 Rockhound of Year Chairman....	John Abel

Auditing Committee 1982.....

PICK & SHOVEL STAFF:

Editor.....Vera Lyman, 420 North 56th St. Lincoln, NE 68504
Club News.....Helena Baegl
Sunshine.....Susan Taylor

DEADLINE: 1st of Month of Issue. Original articles may be reprinted if credit is given the author and THE PICK & SHOVEL and a copy of the publication is sent to the Editor.

Club Calendar

November 1983						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

GENERAL MEETING: Saturday, November 19, 1983 7:30 P.M.
Nebraska Center 33rd & Holdrege
Parking north of building

SPECIAL PROGRAM: Slide presentation on
Carlsbad Caverns. Irl & Lois Everett

BOARD MEETING: Thursday, December 1, 1983
Will be announced at November 19th
general meeting

SHOW COMMITTEE: Nebraska Hall, Room 126
December 15th, at 7:30 P.M.

* * * * *

ATTENTION: If planning on going to Christmas Party, be
prepared to pay by December 5th \$6.50 per
person. If not by November meeting, have
money to Phyllis Parks by December 5th.

* * * * *



November Silent Auction-Got a spare slab,
fossil, gem publication, piece of jewelry
or other hobby related material? We will welcome
it for the silent auction tables-proceeds
to our club's own scholarship fund. If
you have nothing to share perhaps you can
make a worthy addition by bidding. Join
us for fun and excitement.

Linda & Phyllis Parks, Chairing

* * * * *

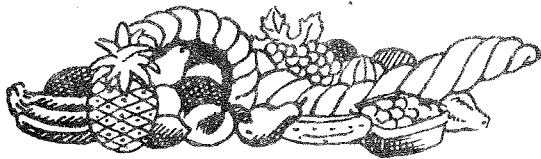
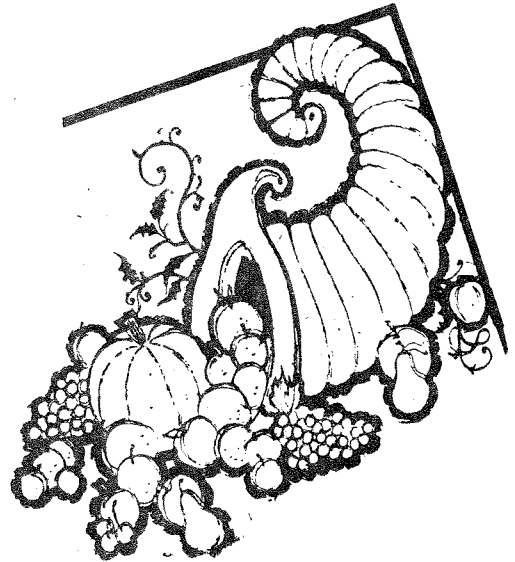
DUES ARE DUE

Lincoln Gem & Mineral Dues are due on
January 1, 1984 and become delinquent
on January 31, 1984. We will accept them
anytime after November 1, at meetings, mailed
to my address or to our post office box.
Renewal is \$5.00 per adult, \$1.00 per junior,
or \$11.00 for a family consisting of 2 adults
and all children under 16. If dues become
delinquent there is a \$1.00 re-registration fee.

Phyllis Parks

GREETINGS FROM THE SUNSHINE CORNER:

Mother Nature takes the purest gold
 from the beautiful rising sun,
 Then she takes some blue from out of the
 sky before the night has begun,
 Then a measure of brown from the
 richest soil
 And a bit of green from the field
 And the brightest orange that she can
 cause the setting sun to yield,
 Then she asks to use a bit of red taken
 from the Robins breast
 And then she mixes all of these when
 summer goes to rest,
 And when the summer has gone away,
 she climbs above the trees
 And pours out this beautiful mixture to
 color our Autumn leaves.



* * * * *

Get well cards were sent to Jim Taylor and Rev and Mrs Pfeiffer.

* * * * *

SYMPATHY

As most of you may know, we lost a good member of our club,
 Marge Heedick. Cards expressing the club's sympathy were sent
 to Mr. and Mrs. Gary Heedick, her son and his wife; and to
 Tom Simmons, Marg's brother.

Suzie Sunshine

Bud Plant of the Grand Island Club has been moved to the Madonna
 Professional Care Center, 2200 S 52nd st. , Rm 208,
 Lincoln, Nebr. 68506. I'm sure both Bud & Alice would
 appreciate cards, letters & visits from their many Rockhound friends.

Kindness is becoming at any age.....

G. I. Nuggett 11/83

President's Message

Our November club meeting is the most important one that we hold all year long. This is the meeting where you the members of the Lincoln Gem and Mineral Club elect the officers and board of directors that will manage our club during the coming year. The November club meeting has been moved ahead to November 19th because of the Thanksgiving holiday weekend. Mark your calendar so that you will be sure to be there.

A silent auction has been planned for the November club meeting. The proceeds from this will go to our club Scholarship and Education fund. Everyone please bring plenty of good material for the Silent Auction. At last months meeting I told you about the special subscription offer that our club has received from Gems and Minerals magazine. Several members expressed an interest in taking advantage of this offer. Remember this will help us to raise some extra money for our club Scholarship and Education fund. I will have the forms with me at the November club meeting for those who are interested to fill out.

Our annual Christmas Party has been planned for December 10th. This is the last time that we will meet before the party so everyone that is interested in attending should sign-up.

I want to take this opportunity to wish all of you a very Happy Thanksgiving!

See you at the November meeting.

"Jim"

* * * * *

DUES ARE DUE

Lincoln Gem & Mineral Dues are due on January 1, 1984 and become delinquent on January 31, 1984. We will accept them anytime after November 1, at meetings, mailed to my address or to our post office box. Renewal is \$5.00 per adult, \$1.00 per junior, or \$11.00 for a family consisting of 2 adults and all children under 16. If dues become delinquent there is a \$1.00 re-registration fee.

Phyllis Parks

MINI-MINUTES

It was announced our Mid Winter Swap will be held January 28, 1984. Proceeds of swap will go to local Scholarship Fund. Claude Scott to be Chairman.

Christmas Party to be held December 10th at 6:30 P.M. in the main party room on first floor at the Nebraska Center. There will be a gift exchange with a limit of \$3.00. Lapidary items only please.

Florence Boring gave a good report on the Neihardt Center.

We will have a Silent Auction at our November meeting with proceeds going to our Scholarship Fund.

Prof. Walter Erbach gave an interesting slide presentation, "The World of Inanimate-Maxi to Mini."

Next general meeting planned for November 19th. Notice it is moved up one week because of the Thanksgiving Holiday. Please plan to attend. An interesting program is planned.

* * * * *

THINGS TO BE THANKFUL FOR

The good, green earth beneath our feet,
The air we breathe, the food we eat,
Some work to do, a goal to win,
A hidden longing deep within
That spurs us on to bigger things
And helps us meet what each day brings,
All these things and many more
Are things we should be thankful for...
And most of all our thankful prayers
Should rise to God because He cares!

Helen Steiner Rice

(Submitted by Vera Lyman, CM)

**EDITOR'S
CORNER**

* * * * *

At this time of year, some of us are a little short counting our many blessings.

The McColery family has much to be thankful for and we hope all the members takes time to give thanks to their family and friends.

Hope everyone has a safe and Happy Thanksgiving!

"Judy"

The meeting was called to order by Jim Taylor, president, at 7:45 p.m. Five board members were present. Also present were Vera Lyman, Marie and Susan Taylor, hostesses, and Judy McColery, bulletin editor.

The minutes were read with these additions and corrections: The Mid-Winter Swap has been approved for January 28, 1984, in conjunction with the general meeting, beginning at 12:00 noon. The date for the 1984 annual show is March 31-April 1. The Pick and Shovel ranked seventh in the AFMS contest. Corrected minutes were approved by voice vote.

The treasurer's report was read by Phyllis Parks and approved by voice vote. There are 94 paid members, 16 juniors, and 6 life members in the club. The comment was made by Vera Lyman that the cost of mailing the Pick & Shovel has risen from 10.9 to 11 cents.

The following paid bills were submitted and approved by voice vote:

\$22.60 to Vera Lyman for the September Pick & Shovel mailing
\$25.00 approved at the September meeting to Roger Pabian to pay for booth rent for the 1983 Lincolnfest

Bills presented for the first time; approved by voice vote:
\$25.00 refund to be received through switch from Lincoln Center to Community Arts Council for Lincolnfest, since LGMC belongs to the latter. This will give an inside, first floor booth at Pershing Auditorium.

\$22.50 for booth to Jim Taylor
\$10.00 for table to Jim Taylor
\$53.78 to University of Nebraska for printing of September Pick & Shovel
\$ 2.91 to Jim Parks for items to repair Gems on location
\$30.00 to Phyllis Parks, U N Division of Continuing Studies, rental for September
\$ 1.86 to Jim Taylor, telephone expenses
\$15.00 to Lincoln Community Arts Council, 1983-1984 membership dues

Approval was also given to buy a roll of stamps to split among Phyllis Parks, Vera Lyman, Judy McColery, and Jim Taylor. Phyllis Parks is to buy a ream of paper to print ballots and other needed items.

Report on the status of the gem and mineral show at the Neihardt Center, Bancroft, Nebraska, by Florence Boring: Cases already in place include Gems on Location, the State Case, and cases by Frank Rule, Myrtle and J. D. Young, and Florence Boring, as well as cases and materials from Bancroft-area people, Dr. Neihardt's original lapidary equipment (on loan from the Neihardt family) and related pictures. Cases by Roger Pabian and the Taylor family will be set in place on opening day, Sunday, Oct. 9, 1983 at which time Jim Taylor, president, and Marie & Susan Taylor will serve as hosts.

The question of a First Aid kit for field trips was discussed, but it was decided that the Club would not buy one since everyone on a field trip should have his own.

NEW BUSINESS: The Board of Directors had decided some time ago to forego any refreshments at general meetings because not enough money was being collected to defray expenses. Jim Taylor raised the question of having a special treat for the October meeting. It was approved by a voice vote that hot cider and 5 dozen cookies be ordered for the October meeting only.

A silent auction was approved for the November 19, 1983 meeting. Phyllis & Linda Parks will chair the silent auction, proceeds from which will go to the local scholarship fund. This is in keeping with the September Board decision that after 2000% was reached proceeds would be directed to the local scholarship and education fund.

Christmas Party: The Christmas party, now being coordinated by Marge Heedick, will probably be December 10, (alternate date, Dec. 3.0 Of the \$100.00 budgeted for the hospitality committee, \$47.83 has been spent thus far. The party was approved at the September general meeting as a catered meal at 6:30 at the Center, with the price probably in \$6.00 to \$6.30 range. A gift exchange, lapidary related, with a \$3.00 maximum, was also approved. Marge Heedick will report at the October general meeting.

Gems and Minerals Magazine: There was discussion of handling subscriptions of this magazine as a money-making project for the Club. The annual subscription rate is \$9.50. \$1.00 will remain with the club. A minimum of ten subscriptions, new or renewal, to club members only is required. Jim Taylor was authorized to take this up at the October general meeting.

Copies of letters regarding Nebraska rocks and minerals provided to students from Norwich, Connecticut, and Moorland, Iowa, by George & Glenna McGinnes and Florence Boring, respectively, along with other materials usable for the Club's bid for All American Club status were given to Florence Boring, chairman, by Jim Taylor. The Board will work on the presentation for the award at the December board meeting.

Announcements of up-coming activities:

Saturday & Sunday, October 8 & 9, 1983, Festival of the Arts. The Club booth will be on the main floor of Pershing Auditorium. Roger Pabian, John Abel, and 16 or 17 other members will work. Several cases will be on display.

Gem and mineral exhibit at the Neihardt Center, Bancroft, Nebraska, will be on display October 9 - October 30, 1983.

For the Oct. 22, 1983 general meeting, 7:30 at the Nebraska Center, the program will be "Minerals in 3-D" by Prof. Walter Erbach, of the Engineering Dept, U. of N., Lincoln. He has made much of his own equipment for this unusual presentation.

The next Board meeting will be Nov. 3, 1983 at the Taylor home at 7:30 p.m. by Pres. Jim Taylor.

Respectfully submitted
Florence M. Boring for
Gail Clair Scott

The Nominating Committee met at the Taylor home on Monday evening, September 19, 1983, at 7:30 P.M.

The following committee members were present. Chairman, Roger Pabian, Marie Taylor, Jim Parks, Frank Rule and Vera Lyman.

The committee is presenting the following slate of nominees for 1984 office which will be elected at our November meeting.

PRESIDENT - Jim Taylor

1st VICE PRESIDENT - Claude Scott

2nd VICE PRESIDENT - James Null

SECRETARY - Vera Lyman

TREASURER - Phyllis Parks

BOARD OF DIRECTORS - (Need to elect 4)

Ron McColery
Jim Stewart
Paul Brauch
Janet Wright
Marie Taylor
Linda Parks
Bob Walker
Mary Walker
Frank Rule

Respectfully submitted,
Roger Pabian, Chairman

* * * * *

safety

Protect yourself from flying chips while using your hand-held chisel. Use a clean plastic food container cover. Make an x slit in the cover, insert the chisel through the slit. The cover will act as a shield so the chips can't fly and hit your eyes as you hit the chisel with your rock hammer.

from MESABI MEDIA VIA PEGMATITE
via OSAGE HILLS GEM & MINERAL SOCIETY
Oct 1983

LAST MEETING

* * * * *

At our October general meeting, Prof. Walter Erbach gave an interesting slide presentation, "The World of Inanimate-Maxi to Mini." This was done in stereo (3-D). Everyone enjoyed the program and we hope Prof. Erbach will visit our club real soon.

"Judy"

HAVE YOU NOTICED?

That when you're hunting far afield
For agates, wood or jasper,
You'll probably find all kinds of rocks
Except the ones you're after?

That when you saw a geode rare
And cut it nearly through,
The vise is always over-tight
Crushing one half in two?

That when you finish your finest cab,
It pops right off the dop
And falls upon the concrete floor
Where it breaks in two--ker-plop?

That when you grind that free-form cab
(You are so careful with it.)
Before you're done, you lose your nails
And gain a bloody digit??

That Murphy's Law usually applies
To every field trip planned
That when you start, expecting rain,
You come home over-tanned?

That rock bag which seem too small
To hold those finds so rare,
Grows heavier so rapidly
That its weight is hard to bare?

via CARLTON COUNTY GEM & MINERAL CLUB
By George "Chic" Cihacek
via ROCKWOOD ROCKHOUND NEWS
September 1983

* * * * *

The Victorians had a special love for coral jewelry. Since Roman times it was believed to possess the power to ward off evil and danger. Consequently it was a favorite christening present. Look at any family portrait of the period and this popular coral will show. Every baby and young child pictured will be wearing a coral necklace.

via ROCK RUSTLER's NEWS
SIOUXLAND GRIND
October 1983

TODD VALLEY - Ancient and Modern

Todd Valley; you may not have heard of it. I became aware of it, a segment of our Platte River System, in the autumn of 1920. This came through one of my routine interviews with Dr. George E. Condra, Nebraska State Geologist and director of the Conservation and Survey Division. These were a pleasant part of my inspiring assignments as a reporter and feature writer for "The Daily Nebraskan".

The Platte, "eons ago", flowed through Todd Valley in its course near Cedar Bluffs and southeast to near Ashland, Nebraska. Geologists, for example, Dr. Condra, Dr. A. L. Luhn and Dr. Gilbert Lueninghoener, have reasoned why it abandoned that part of its channel to one beyond a hill region south of Fremont. The story of Todd Valley has been one of my fondest memories through the past 63 years, first by Dr. Condra, later by Dr. Luhn in one of three geology-related courses in which I was a student, and recently explained by Dr. Lueninghoener by field trips near Fremont. Possibly "Pick and Shovel" readers may remember the first two mentioned geologists, and L.G.M.C. October, 1983, program attendants had the pleasure of meeting a visitor, Dr. Gilbert Lueninghoener.

Since Dr. Condra in 1903 named the Todd Valley in honor of Prof. J. E. Todd of Vermillion, So. Dakota, techniques have improved, including aerial photography which was just beginning about 1920. New discoveries have been made in the topography and composition of land and water. Dr. Condra gave me two of the earliest aerial photos made over Lincoln. One pictured the U.N.L. East Campus, then officially called Agricultural College. (dubbed Cow College!)

On countless trips over 60 years Myrtle and I have driven Hy. 77 from Lincoln to Fremont and beyond. We always observe Todd Valley between Wahoo and Fremont, on either #77, or alternate #109 toward Cedar Bluffs. We note its general flatness, its lack of ravines for drainage, and its many hummocks or knolls. After rainy spells or snow melt there are pools of water. Some of these in early times may have become "buffalo wallows", often yielding early-American hunting artifacts. Eventually the water drains down through the thick layers of glacial sand or gravel. We have pointed out Todd Valley to numerous travel companions who otherwise had not known.

Recently Florence Boring, Myrtle and I enjoyed field trips in the Fremont area with Midland College's capable geologist-astronomer, Dr. Lueninghoener, in his car, more than 200 miles total. The trips featured glaciation and inter-glacial areas all identified in eastern Nebraska.

Prior to the trips we were given pertinent literature and briefing with projected drawings and verbal explanations by Dr. Lueninghoener in the Lueninghoener science-planetarium building.

TODD VALLEY - Ancient and Modern - continued

This was very helpful to us on the trips later; and fortunately the weather was ideal. We enjoyed a delicious picnic lunch at Dead Timber Park north of Scribner, provided by Florence. That place has scientific as well as recreational features, one of Nebraska's many. On our return to Fremont from that trip we came over #30 through Ames and saw where the old Todd Valley Channel was abandoned. Dr. Condra first observed this from a train near Cedar Bluffs and returned with a horse and buggy for further study.

I cannot relate all of the places of interest as we drove over this ancient complex of river systems. Geologists have gradually coordinated the many obvious facts revealed by physical, chemical and biological evidences as shown by aerial and surface observations, and through subterranean drilling, all of which are necessary to understand the areas.

One of the most important sketches given us in our pre-trip briefing was an idealized cross section of the whole area showing the sequence of the several terraces produced by erosion and the glacial and interglacial periods. These were lettered and numbered from the bottom up from F-zero to F-4. F-zero is the present Platte Valley. The pattern of the drawing is symmetrical; the formations represented in the figure may extend over many miles of distance horizontally, and may be irregular with portions removed or varied by erosion or glaciation. Todd Valley Formation is one of the important designated layers. Related segments of the terraces are recognized by experts. Index fossils are important; human artifacts are recent. No human artifacts are found in earlier layers.

Buried topography is complex, and is discovered through well drillings. Sands and gravels came from glacial melt-water. Gumbo is leached, old weathered "till". Loveland loess (reddish soil) was deposited by wind over the Kansan till. Peorian loess (yellow) was deposited by wind over the Todd Valley formation, probably blown out of the Sand Hills.

Riverview housing development south of the present Platte just west of Hy #77 has had problems involving water wells, landslides and sewage disposal, because of sub-surface layers, understandable to geologists, but evidently not to builders.

Some opinions may differ as to why the Platte River abandoned Todd Valley, but the consensus is that it became gorged with glacial sediments, and probably an enormous ice-jam which enabled another stream, possibly the Elkhorn, to "pirate" it and force it to the north side of the hills just south and west of Fremont.

Keep some of this in mind when you travel from Wahoo to Fremont and beyond, either by land or by air.

WIDE WORLD OF AGATE

Agate derives its name from the River Achates of mythological fame. This river is in the large island to the southwest of the Italian peninsula that is known as Sicily. Agate was found here in Greek and Roman times. This dates the use of this gem back several thousand years. The Romans were fond of agate ornaments and jewelry. The Sicilian sources provided numerous large agates that were cut into such things as drinking cups. It is said that the Emperor, Nero, had a very large bowl carved from agate. The Sicilian localities were depleted sometime around the beginning of the Christian Era.

Fortunately, for agate lovers, the gem proved to be fairly common throughout the world. Extensive agate deposits were found in the Idar-Oberstein area of Germany. These deposits were worked extensively and a large lapidary center developed around them. The Idar-Oberstein agate deposits became depleted early in the 19th Century and it was feared that the local industry and economy would collapse. In about 1830, extensive agate deposits were located in Uruguay. The development of reliable shipping vessels and safe sealanes led to the exportation of agate from Uruguay to Germany. The Idar-Oberstein lapidary industry has survived to this very day.

Brazil has also proved to be a very important source of agate. Most of the agates in Brazil have been mined in the southernmost province, bordering on Uruguay. Fourteen of Brazil's fifteen important agate fields lie on the eastern seaboard of the country. Only one important agate field lies to the north in the Roraima District bordering Guyana. A very complete rundown of both the geology and economics of agates appears in Bulletin 29 of the Ministry of Mines and Energy, National Department of Mineral Production of Brazil. The title is Analytic Profiles of Agate. The author is Luiz Eraldo de Mattos; the bulletin was printed in 1974. With the help of a Brazilian student, I was able to translate it from the Portuguese text.

Lapidary has not been an important industry in the United States. However, in the Keweenaw Peninsula of Michigan, a favorite vacation land, and the type area for Lake Superior Agates, a local agate industry developed around 1900. The tiny agates were often tumble polished and drilled to make beads. Some agates were cut into marbles and the small spheres were often drilled and strung as beads. In one antique marble collection, I once saw a box of 12 agate marbles that were manufactured in Michigan.

The Pacific Northwest area has been an important source of agates. Many varieties of agate had been collected there, especially in Oregon, by 1900. The area is best known for the numerous varieties of thunder egg agates that occur throughout much of Washington, Oregon, California, Nevada, Utah, and Idaho. These agate form in volcanic rocks that are known as welded ash flow tuffs.

Probably the most beautiful agates in the world are found in the Chihuahua province of Northern Mexico. These agates come from such areas as Coya Mito, Moctezuma, El Sueco, Gallegos, and Ojo de Laguna. We often read of El Rancho Laguna as being the source of Laguna agates. A detailed map of the agate bearing beds shows no such ranch. The original source of these highly desirable agates was probably Rancho Borunda, a place rarely mentioned in the literature. The agates of northern Mexico were probably known to the Spaniards before 1550, but the earliest verifiable account of them comes in some mineral tables published by the Geological Survey of Mexico in about 1880. The research collections at the Cleveland Museum of Natural History in Cleveland, Ohio, contains some very early recovered pieces of Mexican Agate. This material was probably obtained before 1930 as the collection is mentioned in a 1936 issue of the Mineralogist.

Be sure to bring some agates for display. If you can bring a small case of your won agates, please do so. There will also be cases for those who can not fill one.

Roger Pabian
Education

BRAZIL

Brazil is probably the world's leading producer of gemstones. This large South American country is a continental shield area that is comprised of granitic rocks for the main part. Pegmatite dikes that traverse this terrane are the principal sources of gems. Most of the pegmatites are deeply weathered, the feldspars and micas being converted to clays. Many of the gem materials have survived the deep weathering and the gems are often recovered as by-products of other mining operations----often operations to recover such strategic elements as Niobium, Tantalum, Osmium, Iridium, and Platinum.

Brazil is probably best known for the topaz it produces. Blue, red, pink, orange, and yellow varieties have been found. Some rich sherry colored topaz has also been recovered in Brazil. Some of the topaz crystals found in Brazil have been rather large. At the 1974 National Gem and Mineral Show in Lincoln, one of the featured displays was a single 144,000 carat topaz crystal. It was a fine sherry color, and about 95 percent appeared to be facetable. 144,000 carats translates to slightly over 63 pounds. There is a topaz crystal in the Gemological Institute of America collections that weighs some 250,000 carats, or about 111 pounds. Much of this topaz is available at shows in both rough and cut stones.

Tourmaline is another of Brazil's gems. Large tourmaline crystals are not uncommon but they rarely reach the proportions of the topazes. Over 25 distinct colors of tourmaline have been found in Brazil.

The beryls are important gem minerals from Brazil. Many very large crystals of aquamarine, the light blue form, have been found there. Recent newspaper reports have told of a single gem crystal weighing over 400,000 carats. Its value was placed at several millions of dollars. Some beryl from Brazil is now being offered for sale as emerald. Some of the stones are more of a pea-green, and the material would be more properly called green beryl---it is not a deep blue green that one commonly calls emerald.

Facetable green and yellow-green chrysoberyl has been mined in Brazil. No facetable alexandrites have yet to be reported from Brazil, but some very small alexandrite cats' eyes have been found there. The color change on these stones is very good, but, unfortunately, they are all very tiny.

Most of the above stones have been mined in Minas Gerais (General Mines) province, although gems have been found in many other areas of Brazil.

Some diamonds have been reported from Brazil. These are most commonly found in the northern Roraima area that adjoins Guyana. The diamonds are found in stream gravels of late Precambrian age. Sedimentary structures in these gravels indicate that the streams flowed from east to west. Furthermore, the diamonds are similar to those found in western Africa. This diamond occurrence is one of the very strong pieces of evidence cited to show that the South American and African continents were once connected into a single landmass.

Brazil has much to offer the gem enthusiast. Be sure to bring displays of Brazilian gemstones to the meeting. Cases will be provided.

Roger Pabian
Education

Midwest Federations NEWSLETTER

Published monthly except July and August as a service to member clubs. All news and articles should be sent to the Editor, Mrs. Bette Smith, 10607 Mary Ann, Zealand, WI 49464. All subscription orders should be sent to Parrot Printing Service, 2125 Forest Avenue, Des Moines, IA 50311



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Vicksburg, MI 49087

NOVEMBER 1983.- Issue No. 238

Hats off

TO OUR NEW OFFICERS.....

PRESIDENT - REX WEBB Rex served this past year as MWF First Vice-President. He has been State Director as well as having served MWF in other capacities. He is a member of the Anoka County Gem & Mineral Club, Minnesota Mineral Club, and Richfield Mineral Club, and has served these clubs in almost every capacity, including President of all three.

FIRST VICE-PRESIDENT - JAMES EDWARDS Jim served this past year as MWF Second Vice-President. He has been State Director of Illinois, as well as Assistant State Director. He is a member and co-founder of the Park Forest Earth Science Club and their first President. He has held many offices and chairmanships in this club.

SECOND VICE-PRESIDENT - WILLIAM PARCH Bill just completed his 4th term as MWF Treasurer. He has served as State Director for Wisconsin, also as an Assistant State Director. He is a member of the Driftless Area Gem & Mineral Club and the Coulee Rock Club, and has served both clubs in many capacities.

SECRETARY - JEAN REYNOLDS Jean, an Honorary member of the MWF, has served 16 consecutive years as Secretary. She is a member and Past President of the Earth Science Club of Northern Illinois, and is also Editor of the club's Earth Science News.

TREASURER - KITTY STARBUCK Kitty was the 1983 MWF Show Chairperson. She is a member of the Kalamazoo Geological and Mineral Society. She has been editor of their club's bulletin "Gems" for 17 years, and chairperson of their regular annual show for the last four years.

TO MIDWEST FEDERATION CLUBS: As it comes time for me to assume the responsibilities of President of Midwest Federation, I wish to express my thanks to all those who have shown their confidence in me.

This year I would like to stress the Midwest Federation's service to all the Member Clubs. We have many permanent, as well as temporary, committees working for us to make our hobby more educational and enjoyable for all.

Sincerely,

Rex Webb
Rex E. Webb

RESULTS OF SCHOLARSHIP AUCTION AT KALAMAZOO

10.75	Michiana Rock & Gem Club - South Bend, Indiana
80.95	Coulee Rock Club - La Crosse, Wisconsin
46.75	Earth Science Club of Northern Illinois
20.00	Heart of America Geology Club
9.50	Miami Valley Mineral Club - Fairborn, Ohio
3.75	Park Forest Earth Science Club - Park Forest, IL
187.95	Cedar Valley Rock & Mineral Society - Cedar Rapids, IA
11.85	Parma Lapidary Club - Parma, Ohio
11.30	Northern Earth Searchers - Carthage, Illinois
35.50	White River Rock Club - Muncie, Indiana
15.35	Gem City Rock Club - Quincy, Illinois
18.35	Neville Public Museum Geology Club - Green Bay, WI
2.00	Evansville Lapidary Society - Evansville, Indiana
40.75	Midwest Federation - (Midwest Typewriter)
28.00	Howard Taylor, Sr., Scholarship Memorial - Lincoln Gem & Mineral Club - Lincoln, Nebraska
21.75	West Suburban Lapidary Club - Elmhurst, Illinois
25.00	Mid-Iowa Rock Club - Marshalltown, Iowa
12.50	Grand Island Earth Science - Grand Island, Nebraska
72.25	Lake County Gem & Mineral Society - Waukegan, IL
6.50	Wisconsin Geological Society - Milwaukee, Wisconsin
2.00	Rolling Rock Club
30.50	Rock Exchange Club - Garden City, Michigan
14.05	Bay de Noc Gem & Mineral Club - Escanaba, Michigan
20.75	Central Michigan Lap & Mineral Society - Lansing, MI
.50	Flint Rock & Gem Club - Flint, Michigan
8.75	Indian Mounds Rock & Mineral Society - Wyoming, MI
21.85	Ishpeming Rock & Mineral Club - Ishpeming, MI
54.50	Grand Rapids Mineral Society - Grand Rapids, MI
11.50	Livingstone Gem & Mineral Society - Walled Lake, MI
63.25	Tulip City Gem & Mineral Club - Holland, Michigan
15.50	Midwest Mineralogical & Lapidary Society - Dearborn, MI
100.00	Donation - L.J. Wiggins, Credit 50.00 Muncie Rock & Gem Club and 50.00 Michiana Rock Club

\$1023.90 Total from Auction July 15, 1983

RECEIVED AT COUNCIL MEETING

31.00	Dayton Gem & Mineral Society (Auction Bola Tie)
25.00	Michiana Rock & Gem Club (Most displays)
15.00	Jack Dare

The Clubs that advanced their status at the auction will be notified. The others will be notified when they next send a contribution.

Katharine Steinbrenner, Chairman Midwest Scholarship

THE MIDWEST FEDERATION CLUB AWARD

The receivers of this certificate are, by definition, clubs that, in one way or another, deserved recognition for their work or some particular unusual and spectacular aspect of their club work. They may, or may not, have received an American Club award, perhaps because they are new, or perhaps because they did not have a complex program deemed by the judges to be an All-American Club winner. Never the less they attracted the attention of the judges and they received a citation for their work. This year all six happen not to be American Federation winners.

We congratulate them on their award and our good wishes for continued effort go with them.

PARK FOREST EARTH SCIENCE CLUB - This club does many things well. Its report reveals a tremendous strength in working with other clubs by initiating inter-cooperative meetings and hosting various meetings for other groups, including the Executive Meeting of the Midwest Federation.

NEVILLE PUBLIC MUSEUM GEOLOGY CLUB - A small club that works hard to support the local museum. A club that supports about two meetings a month for the entire year. There is plenty of informational programs on a wide range of topics, and in addition, field trips.

RICHFIELD MINERAL CLUB INC. - As a result of several activities in the BLM land management program, Rockhounds became aware of adverse rules for those that wanted to collect on public lands. Individual members of clubs across the nation were encouraged to protest the proposed harsh limitation. This club has presented the best of all the information that would help a member prepare a letter of protest to BLM. In addition, the club has a varied program for all interests.

EVANSVILLE LAPIDARY SOCIETY - This Saturday night club of medium size and thirty years experience has a well developed shop for lapidary work available to members. They have good field trips and a fine annual show. In addition they cooperate with other science clubs (Nature, Museum, Audubon) for mutual benefit.

CALUMET GEM & MINERAL SOCIETY - This club presented a report that best represented what the judges felt provided the desired information in the most compact form pointing out their responses in an easily read form. The club has a fine all-round program for a medium to small club.

THE GRAND ISLAND EARTH SCIENCE SOCIETY, INC. - A small club with a big program, including a meeting of some type each month. The promotional effort for their annual show was super. They have won a variety of awards and citations at Federation meetings. For a club nine years old, it has done very well.

Benjamin Moulton, Chairman Merit Awards

AMERICAN FEDERATION AWARDS

These six clubs are cited as All American Club winners for this year. These awards are presented unranked and read "All American Club Award for Outstanding Service - 1982-1983. Congratulations to them.

WISCONSIN GEOLOGICAL SOCIETY - Host for the Midwest Federation Meeting in 1984, this club has enthusiasm and know-how and, most important, the energy and willingness to use it to support a first rate club. They are consistently a top flight group operating in the best of Midwest Federation tradition.

GEM CITY ROCK CLUB - This small club has the impact of a large club in all its activities at the various levels of operation. Two presidents of the Midwest Federation have come from this club. It has won awards in the various competitions, receiving 3rd place of All American Club Award in 1982 in Houston. If you were in a position of being transferred from where you are now to a new location for your work, you would be considered lucky to be able to move to the geographical area of Quincy, Illinois, and become part of this group.

HEART OF WISCONSIN GEM & MINERAL SOCIETY - There must be something we don't know about Wisconsin that explains why two of our All American winners come from that state. It must be in the air or water or minerals that helps people become interested enough to join together in forming a club such as this one. It is the best of the clubs, primarily orienting its programs to the service of the members but not forgetting other goals of the Midwest Federation.

MCDONNELL-DOUGLAS GEM & MINERAL SOCIETY - A club that clearly defines its goals and proceeds to develop them. This includes meetings, classes, field trips, Scholarship support and fellowship. Members visit a large number of shows elsewhere and participate actively in regional and national and international activities. The club publishes a quality newsletter, "The Geode".

EARTH SCIENCE CLUB OF NORTHERN ILLINOIS - This organization, over 30 years old, has all the sophisticated features of a mature and smoothly operated club. It participates in a variety of community programs in addition to a complex internal program. One sixth of its membership are young people (Junior Members).

FLINT ROCK & GEM CLUB - This club, over a quarter century old, continues to grow. It expresses its success in a complex program to cater to the many interests of its members. The club supports scholarships for college students in addition to support for the American Federation Scholarship Fund. It also buys books and mineral specimens for the geology department of the local Community College.

Benjamin Moulton, Chairman Merit Awards

SAFETY SMOKE: THE POISON IN FIRE

Helen R. Neumann, Safety & Field Trip Chairperson

"When it comes to dying, where there's smoke, you hardly need to look for fire. In the typical home, factory or office-fire, three chances in four, it's the smoke that gets you." So states Barry Rohan, Free Press Science Writer, in his article dated August 9, 1983.

"The nation's fire fighters, supported by personal experience and many medical and toxicology experts, maintain fires are now more toxic because of the wider use of plastics in building materials and furnishings," he continues.

"The National Fire Protection Association, a non-profit research group in Quincy, Massachusetts, reports about 6,500 people are killed and 100,000 suffer serious injuries in fires annually, about three-fourths of them from the effects of smoke inhalation." He quotes Yves Alarie, an expert, and University of Pittsburgh professor of physiology and toxicology who claims that fumes from plastics can kill you twice as fast as wood smoke. A person in an average sized bedroom can be killed in 10-15 minutes by only five ounces of burning polyvinyl chloride, found in wallpaper, furniture and electrical wire insulation.

Some plastics give off hydrogen cyanide, which is a lot more toxic than carbon monoxide and faster acting," Alarie says. "When we have a fire today it's no longer carbon monoxide alone; we've added hydrogen cyanide, hydrogen chloride and other unknown toxins."

Although we now have the warning before us...what is being done to protect the public from this dangerous menace?

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Advertising by a rock-hobby business or interest is permitted with 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 \$5.00 per year mailed.

Dues to LINCOLN GEM & MINERAL CLUB are as follows:

Adult membership fee \$5.00 (age 16 and over)

Junior membership fee \$1.00 (age 12-16)

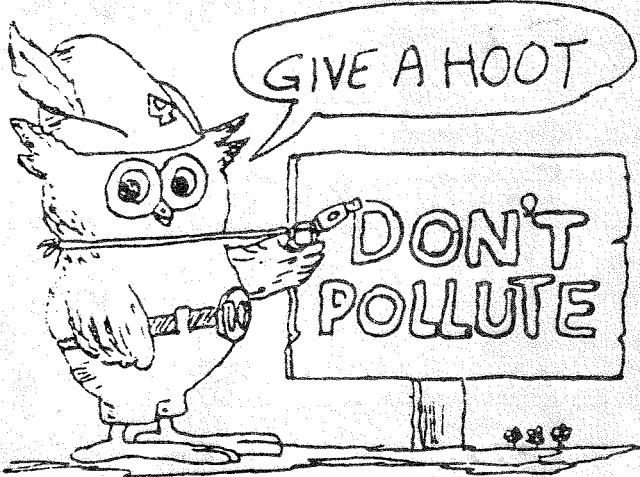
Family membership fee \$11.00 (husband, wife and all children under 16 - permanent residents of household)

New membership must be approved by the Board, after applicant attends at least one (1) regular meeting of the club, and pay the above dues plus \$1.00 registration fee.

DON'T FORGET: The November General Meeting will be held on November 19, at 7:30 P.M. due to the Thanksgiving Holiday the following week.

DON'T FORGET: The Christmas Party at the Nebraska Center on December 10th at 6:30 P.M. There will be a gift exchange.

Read the article on "Christmas Party" in this issue!



H.E.L.P.

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