

THE PICK & SHOVEL



March 1983

In this issue.....SHOW BIZ

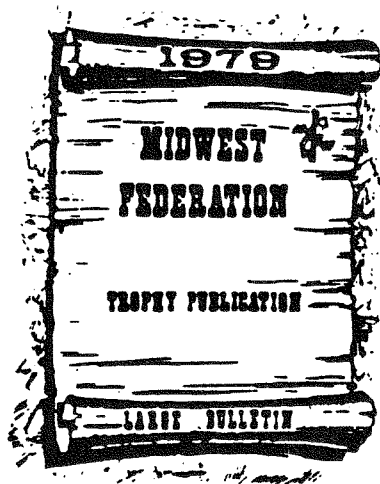
PROCLAMATION -
Nebraska Rockhound Week

"GIANTS FROM THE PAST"

EROS Data Center

SAGENITIC AGATE -
EASTERN FEDERATION

THE SHAMROCK - KITES



OFFICIAL PUBLICATION OF

Lincoln Gem and Mineral Club, Inc.

P. O. Box 5342

Lincoln, Nebraska 68505

LINCOLN 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.....	C. Rose & J. Haney	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.....	Ray Lamber, Chairman		
	Florence Boring, Vera Lyman		

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

March 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	31		

25TH ANNUAL SHOW in conjunction with NEBRASKA STATE SHOW:
 Saturday, March 26, 1983 9:00 A.M. - 9:00 P.M.
 Sunday, March 27, 1983 9:00 A.M. - 5:00 P.M.

PROGRAMS, DEMONSTRATIONS, EXHIBITS, SILENT AUCTIONS,
 WHOLESALE & RETAIL DEALERS

BOARD MEETING: April 7, 1983 7:00 P.M.
 910 New Hampshire (Taylor home)
 (Please note the change in time to one half
 hour earlier).

There will be no GENERAL MEETING this month. The Show takes
 the place of our meeting. SEE YOU ALL AT THE SHOW!

* * * * *

FEDERATION SHOWS:

June 10 thru 12, Oklahoma City, OK
 ROCKY MOUNTAIN

June 17 thru 19, San Jose, CA
 CALIFORNIA

July 8 thru 10, Charleston, WV
 EASTERN

July 14 thru 17, Kalamazoo, MI
 MIDWEST

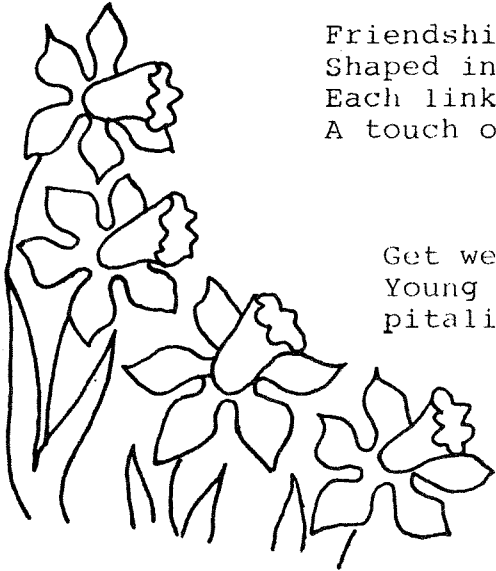
August 4 thru 7, Spokane, WA
 AMERICAN/NORTHWEST

November 11 thru 13, Dallas, TX
 SOUTH CENTRAL

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A man was filling out an application for a factory job, and
 was puzzled by the blank after "Person to notify in case of acci-
 dent." Finally he wrote, "Anybody in sight."

GREETINGS FROM THE SUNSHINE CORNER:



Friendship is a chain of gold
Shaped in God's all-perfect mold;
Each link a smile, a laugh, a tear,
A touch of the hand, a word of cheer.

(Anonymous)

Get wells have been sent to Mrs. J. D. (Myrtle) Young and to Richard Haney - who are both hospitalized.

Both of you get well fast -- we need you at the Show!

Suze Sunshine

* * * * *

WHO'S WHO

Please keep your Who's Who up to date. I will keep you informed of any new members or reinstatements via the Pick & Shovel.

The following members have been approved for reinstatement.

Hal & Darline Janzen
4327 Cambridge Road
Grand Island, NE 68801
(Toll 308) 382-1322

Mark Mercier
3316 R Street 68503
476-6242

* * * * *

WHY NOT ADD THE FOLLOWING RESOLUTIONS TO THOSE IN LAST MONTH'S ISSUE:

I RESOLVE: To assist the club bulletin editor by writing one or two educational articles during the coming year.

To take more interest and promote activities for our Junior Members.

To get involved in our Regional and National Federations; investigating not only - "WHAT DOES THE FEDERATION DO FOR ME?" but more important:

"HOW CAN I CONTRIBUTE TO IMPROVE THE FEDERATION?"
WE - you and I are THE FEDERATION!

- via AFMS Newsletter, Jan. '83

HUGE GEM FOUND - A Kalispell, Mt. couple has found a huge ruby while digging along the Missouri River near Helena, Mt. They discovered the 37.67 carat gem last summer. They almost threw it away as a rock until they saw light coming through the gem, which was covered with dirt.

- via Black Hills Prospector, 1/83

President's Message

Well, "show time" is here again! I hope that you are all ready. Remember our show can only be as good as your support is. The show committee has done it's job, now it's up to the members to do their share of the job that they started. People are needed to help in several areas.

The building will be open at 9:00 A.M. the 25th. We will begin setting up tables so that the dealers can get set-up. After the dealers are in we will be ready for club members to begin setting up their displays.

There will not be a general club meeting this month because of the show. Join us instead at the cake and coffee social at 9:00 P.M. the 26th. Marge Heedick is in charge of this and needs the donation of cakes and the help of ladies from the club to serve and clean-up afterwards.

Arrangements have been completed for our Awards Breakfast which will be held at 8:00 A.M. the 27th. You will be able to register by talking to Lois Everett or stopping at the Information Table at the show. Please come and join us!

Hope to see you all at our show!

Jim

* * * * *

- SUPPOSE The membership in our Club was limited to 15 members. Would you be in or out?
- SUPPOSE You had to "run" for Club membership as a candidate runs for office. Would you win or loose?
- SUPPOSE Membership was good for only one year, and the re-election depended upon the services you had given the Club during that time.
- SUPPOSE You were called upon to tell why you thought the Club should keep your name on the roll? Do you have a record of helpful service to offer in self-defense?
- SUPPOSE Every member of the Club did just as much as you are doing now. Would the Club be the most active Club around, or would the Club disappear into obscurity?

SOMETHING FOR ALL OF US TO THINK ABOUT!

People soon forget how fast you did your job, but they long remember how well you did it.

- via Smoke Signals 2/82

**FROM THE
GRAPEVINE** 

Helena's sister has been under the weather lately so she's been kept busy caring for her and unable to gather any "highlights" this month, so I'm going to try and fill in for her.

On February 15 the University of Nebraska presented service awards to employees. Four persons received 40-year awards. Among them was Adeline E. Nolde who received a pin with three diamonds on it. Those with 25, 30, 35 and 40 year awards attended a luncheon at the Nebraska Union.

Those with 5, 10, 15 and 20 years of service were honored at receptions in the morning and afternoon. Roger Pabian was among those receiving a 15-year pin with two rubies on it.

Received word that Mrs. Myrtle Young is doing well, but will have to remain in the hospital yet for several weeks.

Mr. Richard Haney has returned home and is recuperating rapidly. We do hope he takes it easy. We'd like to see you at the Show.

A speedy recovery to you both and return to good health.

A number of Club members made the trip to Kansas City for the Show. Those included were; Marie, Jim and Susan Taylor, Glenn and Vera Lyman, Ray and Mary Lambert, John Abel and Phil, and Roger Pabian. Those attending enjoyed an excellent Show.

The Lymans and Taylors also enjoyed an early Birthday celebration for Jim by dining out at the Hereford House, complete with cake and Happy Birthday song (compliments of the restaurant).

We all returned home tired but had an enjoyable day.



HAPPY BIRTHDAY, PREZ!

* * * * *

NEBRASKA ROCKHOUND WEEK

On Monday, March 7, 1983, at 11:45 A.M., Nebraska Governor Robert Kerry proclaimed the week of March 21st through the 27th, 1983, as: NEBRASKA ROCKHOUND WEEK.

Those in attendance from our Club were: President Jim Taylor, Roger Pabian, Gail Scott, Ray Lambert, Phyllis and Linda Parks.

A copy of the Proclamation follows this page.

STATE OF NEBRASKA



Proclamation

WHEREAS THE HOBBY OF ROCKHOUDING IS POPULAR FAMILY ACTIVITY IN THE STATE OF NEBRASKA; AND A CONSTRUCTIVE ACTIVITY FOR THE CITIZENS OF THE STATE OF NEBRASKA; AND

WHEREAS THE ROCKHOUND FRATERNITY OF THE STATE OF NEBRASKA HAS PROVIDED EDUCATIONAL MATERIALS FOR NEBRASKA'S LIBRARIES AND SCHOOLS; AND HAS PROVIDED SCHOLARSHIPS TO THE UNIVERSITY OF NEBRASKA; AND HAS PROVIDED GEM, MINERAL, AND FOSSIL SPECIMENS TO THE UNIVERSITY OF NEBRASKA; AND

WHEREAS THE NEBRASKA ASSOCIATION OF EARTH SCIENCE CLUBS IS A NON-PROFIT EDUCATIONAL ORGANIZATION WHICH PROMOTES INTEREST AND EDUCATION IN GEOLOGY, MINERALOGY, PALEONTOLOGY, ARCHEOLOGY AND LAPIDARY; AND SPONSORS AND PROVIDES MEANS OF COORDINATING THE WORK AND EFFORTS OF GROUPS INTERESTED IN THESE FIELDS; AND

WHEREAS THE ASSOCIATION IS MADE UP OF 20 LOCAL CLUBS WITH APPROXIMATELY 800 MEMBERS IN 20 NEBRASKA CITIES, INCLUDING THE LINCOLN GEM AND MINERAL CLUB, THE 1983 NEBRASKA STATE GEM AND MINERAL SHOW SPONSOR; AND

WHEREAS THE 1983 NEBRASKA STATE GEM AND MINERAL SHOW WILL BE HELD AT THE NEBRASKA STATE FAIRGROUNDS IN LINCOLN ON MARCH 26 - 27, 1983;

NOW, THEREFORE, I, ROBERT KERREY, GOVERNOR OF THE STATE OF NEBRASKA, DO HEREBY PROCLAIM THE WEEK OF MARCH 21ST THROUGH THE 27TH, 1983, AS:

NEBRASKA ROCKHOUND WEEK

IN NEBRASKA AND URGE ALL CITIZENS OF THE STATE TO JOIN ME IN WELCOMING OUR ROCKHOUND GUESTS TO OUR STATE.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Nebraska to be affixed this 7th day of March in the year of our Lord one thousand nine hundred and 83.

Attest:



Allen J. Beermann
Secretary of State

Robert Kerrey
Governor

Lincoln Gem & Mineral Club, Inc.
Board of Directors February 7, 1983

The Board of Directors meeting was called to order by President, Jim Taylor on Feb. 7, 1983, 7:30 P.M. at the Taylor home; six board members, Bob & Mary Walker, Vera Lyman. Claude & Gail Scott excused.

Minutes of January meeting read and approved with exception of \$ 121.91 for Pick & Shovel Expense. Motion by Virginia Green, second Florence Boring. Motion carried.
Treasurer's report read. Motion to approve by Florence Boring, second Virginia Green. Motion carried.

Swapper Bucks surcharge discussed. Motion by Florence Boring that the \$9.42 Surcharge + \$2.60 donation + \$78.90 Silent Auction which had not been designated to be forwarded to Nebraska Academy of Science Scholarship Fund. Second by Virginia Green. Carried.

Two Bills presented which are already paid; for approval:
\$22.13 Vera Lyman, Jan. P & S mailing
\$25.00 Vera Lyman, Jan. Birthday cake, plates, napkins, forks
Motion by Frank Rule, second Virginia Green. Approved.

Bills presented for approval and payment:
\$ 45.43 UN Printing Jan. P&S
9.55 Vera Lyman, copying and postage
20.00 U.S. Post Office, Roll of stamps (Roger Pabian)
214.42 Ne Academy of Science - Scholarship Committee
(\$ 123.50 in acc't, 78.90 Silent Auction 2.60 donation
9.42 swapper bucks surcharge) = 214.42
Motion by Florence Boring, second Glenn Lyman. Carried.

'83 Show Bills presented - for payment:
\$ 20.00 U.S. Post Office, Roll of Stamps (Roger Pabian)
65.99 Jim Taylor, Camera Ready copy and Show Flyers
Motion by Virginia Green, second Glenn Lyman. Carried.

Committees:

Mrs. Rose and Mrs. Haney volunteered for Hospitality Committee as of January meeting.
Vacancies on Programs; Field Trips; Outside Displays; Jr. Activities.

Old Business:

Due to lack of Membership count in Jan. - Subscription monies held till Feb. meeting. '83 Gem Palette Subs.- \$ 67.00

New Business:

\$42.69 was paid to NE Center for Jan. Meeting refreshments. Decided to suspend with coffee, etc. except for special meetings due to prices.

John Abel absent so no Show Report. Jim filled in for John. Show flyers were available for board members.

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Board of Directors Feb. 7, 1983 - continued

New Members presented for approval:

Ronald & Judy McColery, Scott & Corinna - Sponsor, Lymans
Lester Hunt - Sponsor, Roger Pabian
Ross & Janet Wagner, Dennis & Douglas - Sponsor, Frank Rule
Robert Wright, Reagan & Andrea - Sponsor, Janet
James Null - Sponsor, Roger Pabian

Motion by Phyllis Parks they all be approved. Second Virginia Green. Carried.

Discussions:

Marie Taylor received letter from MWF Chairperson requesting 20 pieces Blue agate, 20 pieces Prairie agate. Requesting that we donate or minimal fee. Marie going to make further inquiry.

Letter from Community Arts Council soliciting a person's name for 5th Annual Arts Award in April. LGMC never has participated.

Letter from Mrs. Young regarding activities to honor Neihardt in '83. Possibly Fall or Spring show. '78 Neihardt Show report read by Florence. Florence volunteered to present at Feb. meeting and request their wishes for displays.

Entering the All American Federation Club Award discussed. Florence Boring volunteered to keep records of same for '83.

Financial Report:

The financial statement for 1982 was read by Treasurer. Auditing committee to try and audit books so report can be prepared by Feb. meeting.

The next Board Meeting to be held March 3, 7:30 P.M. at Taylor home.

Meeting adjourned by President, Jim Taylor.

Respectfully submitted, Gail Clare Scott, Secretary

(by Vera Lyman, in her absence)

FROM THE EDITOR

LAST MONTH - At our General Meeting, three guests were present. They included Michael Smith, Whitefish, MT. friend of member James Null; Dan Rose, brother of member Don Rose; and Fred Hobart. When I first spoke to Mr. Hobart, he told me he was an uninvited, curious and interested person in our hobby and asked if he could sit in on our meeting.

I hope you were pleased with our meeting, Mr. Hobart. We sincerely hope all of you will plan to attend again and certainly want to extend a special invitation to our Show on March 26 & 27. Thanks for your interest in our hobby.

The Program, "Lake Superior Agates" was presented by Roger Pabian.

Locations of commercial and hobby use of agates were given. Many slides of beautiful agates from many parts of the world were shown. Agates are all different but very similar. Slides of various agates with eyes, plumes, pisolites, and stocks were seen. Sometimes the imagination of the structure and color formations is almost overwhelming. It was an excellent program.

The following members were nominated as delegates to the State Association Meeting at our Show on Sunday. They are Glenn Lyman, Ron McColery, James Null, and James Stewart; Joyce Haney as alternate.

Announcement was also made that the Governor's Proclamation Ceremony would be held on Monday, March 7, at 11:45 A.M., State Capitol, declaring the week of March 20-27 as ROCKHOUND WEEK in conjunction with our Show.

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safetyAT HOME - Could include such things as:

- * running the grinding wheels in the proper direction
- * never use or boil acids in a closed area
- * wear safety glasses
- * wear a dust mask with any dry procedure - sanding, polishing, carving, etc.
- * be careful when working with malachite, abalone shell or other toxic materials
- * obey warnings on containers
- * don't melt unknown silver - irreparable lung damage or death could result

- AFMS Newsletter, Feb. '83

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Spring Marches In

Fair Warning: March always has the first day of spring, but it rarely has the last day of winter.

SHOW BIZ

Dear Members of the Lincoln Gem & Mineral Club:

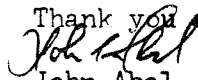
Our show is fast approaching and as the big event draws near, I am sure you are all anxious for an educational and fun filled time.

Please attend, display, and enjoy yourselves.

This is also an excellent time to bring and introduce your acquaintances to all the enjoyments of the rockhounding hobby.

A final request; your help before and after the show in setting up and tearing down is vitally needed. Please find time on Friday and after the show on Sunday for a massive group effort and quick, efficient set up and tear down.

Thank you and sincerely,



John Abel, 1983 Show Chairman

p.s. Bring material for the silent auctions to be held during the show. Thanks again.

HELP!

Friday the 25th of March is the day we will look to the members of the Lincoln Gem & Mineral Club to show their support of our Club in setting up the 25th Annual Show and State Show at the Ag Building at the State Fair Grounds

I would hope to see all of you, but I know that is not possible. The more of you that show up, the less work there will be for everyone. I will be there by 9:00 A.M. It would be nice to see a few new faces along with the usual regulars that always set up the Show. By this I don't mean just the new members.

Your Floor Chairman

Glenn

"GIANTS FROM THE PAST"

During over 60 years of National Geographic Society membership, I have received more than 720 monthly National Geographic Magazines. (beginning at \$3.00 and now \$15.00 per year) I have purchased many books published by the Society. One of the most interesting came recently, with the above title.

Nebraskans should be proud of their state's fame in many fields, and especially in paleontology. The State Museum on the Lincoln campus is outstanding, because of its displays, and its dedicated, expert personnel.

Lincoln Gem and Mineral Club members have cooperated with the Museum. Many of our programs and activities have been aided by museum staff persons. About 20 years ago some of our Club's members worked diligently in helping to recover a large, rare Plesiosaur skeleton from its prehistoric burial site near Valparaiso, about 25 miles northwest of Lincoln. (It is one of our museum's attractions.) They have helped to prepare exhibit specimens from other areas.

Some of Nebraska Museum's collection and staff are featured in the Geographic's book on several pages with pictures and text. Among them are a long-time early Director, Dr. E. H. Barbour, and Vertebrate Paleontology Director, Dr. Michael Voorhies. Dr. Barbour had much early contact with the world-famed "Agate Fossil Beds" on Captain Cook's Ranch in NW. Nebraska. Dr. Voorhies has been very much involved with the recent important find of many rhinoceros and other well-preserved skeletons. (see National Geographic Magazine, Jan. 1981 pp66-75)

The Agate Fossil Beds are now a National Monument, with one of the world's greatest deposits of vertebrate fossils; the Voorhies rhinoceros site near Orchard, Nebraska is ranked among the greatest of its kind anywhere.

There are many other places in the U.S. where great sources of fossil specimens are found, some are unique, such as the "La Brea Tar Pits" at Los Angeles, but the Nebraska finds at Agate and Orchard are our "very own," and also unique!

Most rockhounds do not need a definition of "fossil", but here is one anyway: "any remains, impression, or trace of an animal or plant of a former geologic age, as a skeleton or footprint." Many of us are interested in fossils as well as gemstones and minerals. Even the smallest and least attractive specimens will delight children. When they find one in the field they feel "it has made the day."

Some people still believe that fossils were "planted" in the earth by evil spirits just to confound humans. Some scientific theories and opinions may be amended, but most scientists always seek truth and enlightenment, evil spirits or not. Time scales for dating events or phenomena may be changed by later understanding.

"GIANTS FROM THE PAST" - continued

Fossils are found from Pole-to-Pole of the earth. Evidently climate and other environmental conditions have varied throughout past history. Certain forms of life have been favored, or handicapped, at times for short or unbelievably long periods. The unadaptable have become extinct, sometimes with no apparent reason.

Conditions were not always favorable for preservation of fossil remains of extinct species. Evidences of their existence may be lost forever, while some have left many easily recovered parts, imprints or even entire well-preserved, articulated skeletons.

Careful recovery and intelligent study of specimens reveals many facts about an ancient creature's characteristics and its environment. Accurate interpretation of all evidence employs knowledge of all sciences. Skill, patience, persistence and financial aid are needed. Valuable, important fossils may be easily damaged or lost by careless recovery, transportation, storage and handling. Controls of collecting are enforced in some areas, and most thoughtful rockhounds obey them.

The "Giants" mentioned in the Geographic book include, for example; elephants (mammoths and mastodons), camels, beavers, cats, rhinos, sloths, pigs, deer and armadillos. Many are features of Nebraska, and its museum has specimens on display of most of them. Reconstructions of some are of the world's largest ever found. A hornless rhinoceros (Baluchitherium) is 17 feet tall, a giant pig is 6 feet (Dinohyus). The mounted mammoth 14 feet tall, found in Nebraska, is said to be the world's largest, and Mammoth it really is!

Nebraska's climate must have been almost tropical at times, then frigid and partly covered with slowly moving glacial ice sheets over part of the area. In the far northern countries frozen animals are found still preserved in perpetual glacial ice, a sort of permanent "deep freeze."

Intense clouds of volcanic ash drifted in from extinct far-off eruptions, killed and preserved many forms of life on earth. That is what happened millions of years ago near where Orchard, Nebraska now stands, and there are many more similar examples of this same kind of natural violence. The "La Brea Tar Pits" is a place in Los Angeles where water has covered a natural basin of tar, and thirsty animals were trapped and preserved in the goo. Great floods have drowned and covered animals, such as at Agate, Nebraska.

Visit our Nebraska Museum and enjoy one of the nation's No. 1 attractions. It is much more than "just a dead circus"!

- Submitted by J.D. Young

EROS Data Center, Sioux Falls, South Dakota

Exciting things have been happening in the discovery of our earth's surface ever since the launch of the first Earth Resources Technology Satellite, ERTS-1 (later renamed Landsat 1) July 23, 1972. The best way to learn of these new discoveries, how they are made, and what uses can be made of them is to visit the EROS Data Center sixteen miles northeast of Sioux Falls, South Dakota, as I was privileged to do the last of January.

EROS is the acronym for Earth Resources Observation Systems. For the first three Landsats it was a program of the U.S. Department of the Interior, administered by the Geological Survey. EROS was established in 1966 "to apply remote-sensing techniques to the inventory, monitoring, and management of natural resources." The EROS Program provides remotely-sensed data to scientists, resource planners, managers, and the general public throughout the world. To make the data useful, research and training programs are provided. People come to Sioux Falls from all over the world to take these courses, which provide assistance in applying the data to agriculture, forestry, geology, hydrology, and other studies of the environment and natural resources.

Sitting by itself on the wind-swept (snow-drifted when I saw it) plains of South Dakota, the EROS Data Center is an impressive but lonely-looking facility. Its main building is huge in area (120,000 square feet) but low in profile. Its heart is a central computer complex which controls a data base of more than six million images and photographs of the earth's surface features. The sight of all those computers might be a thrill to some people, but for me the real delight was in the clarity of the images and photographs and the beauty of the false-color imagery. Some of it rivals the brightest works of art.

The false-color images result from color enhancement of composite images from four different bands of the electromagnetic spectrum. The light we see and in which we are accustomed to taking pictures is only a very small part of the electromagnetic spectrum. However, we are acquainted with ultraviolet (as in bug killers), of shorter wave length; and with infrared (as in heat), of longer wave lengths. The multispectral scanner in a Landsat satellite uses the green band to emphasize the movement of sediment-laden waters and to show areas of shallow water, such as shoals, reefs, and the like; the red band, to show cultural features, such as cities; the near-infrared band, which emphasizes vegetation, the boundary between land and water, and landforms; and a slightly longer near-infrared band, which improves the penetration of atmospheric haze. Four images of the same area at the same time are thus produced and may be viewed singly, placed one over the other in black and white, or enhanced with color to bring out the surface features.

With the color enhancement, red areas are vegetation in various stages of vigor and growth; black or dark blue shows water. Water with suspended sediment, and range land often show light blue. Urban areas will be light blue or blue-gray. White may indicate clouds, snow, sand, surf, or bare soil. The questions that can be answered from data such as this

EROS - continued

are endless: for instance, not only how extensive are croplands, but what crops are being grown, are they growing well--any lack of soil nutrients, lack of water, or infestation with insects or disease. The near future bears the promise that irrigation water may be conserved by applying it only when and where satellite survey shows it to be needed rather than to entire fields on a predetermined regular basis.

Other areas of human need are also being addressed. The amount of snow cover is important in determining the availability of water for irrigation and for human consumption. Surveillance of ice breakup in northern waterways has already saved millions of dollars in shipping costs. Monitoring sedimentation in lakes and oceans has great implication for soil conservation. Geological survey by satellite directs oil and gas prospectors where to search. The applications are endless.

Each Landsat carries not only the multispectral scanner but a television system (return beam vidicon) and a data collection system to relay environmental data from ground-based systems. This is the kind of information that may someday predict the time and location of earthquakes from the swelling of areas along earthquake faults, as is already being monitored along the San Andreas Fault in California.

Landsats 1 through 3 orbited the earth at an altitude of 570 miles in a circular orbit which passed north to south in the daytime. Orbiting in 103 minutes, or roughly 14 times a day, these satellites would cover the entire globe every 18 days, viewing the earth at the same local time on each pass (about 9:30 am at the Equator). Each image scene from the data returned covers an area about 115 miles on a side. Landsat 4, launched July 16, 1982, orbits at an altitude of 438 miles. Consequently, it covers the earth in 233 passes rather than the 251 made by the first three Landsats and has to be keyed to a different Worldwide Reference System. Landsat 1 operated until January, 1978; Landsat 2 was launched in January, 1975, and removed from operational service in February, 1982. Landsat 3 was launched in March, 1978, and is expected to be decommissioned in March, 1983.

Landsat images are only part of the worldwide coverage available from the EROS Data Center. The world's first truly spectacular photography from Space was done by Gemini III. There are hundreds of photographs from the Geminis, the Apollos, and Skylab. Although Skylab traveled in orbits only 270 miles above the earth, its photography was aimed at scattered test sites selected to support earth resource experiments. The Landsats are the only ones to give systematic and repeated coverage of the entire globe.

Among the most interesting color photographs available from the EROS Data Center are of the major metropolitan areas, including Lincoln, Nebraska. These were taken by aircraft flying from 2,000 to 60,000 feet altitude. The photographs from aircraft are not limited to cities. Most LGMC members have a copy of the map of Nebraska on which every irrigation pivot circle is clearly (and sometimes painfully) evident.

- continued

EROS - continued

Images or photographs of any area can be ordered from the EROS Data Center, but the specifications for the area must be exact. The customer can select from a set of 470 scenes which cover the entire United States, or from a selected list of metropolitan areas. If none of these is exactly what is wanted, an image can be designated by giving the latitude and longitude of the four corners of the area. However, if the image of this particular area has not yet been developed, the cost is much greater. Slides and film are also available and, for a fee, the customer can specify the maximum amount of cloud cover that would be acceptable, or request an image from an orbital pass yet to be flown.

Anyone wishing information should write:

EROS Data Center
U.S. Geological Survey
Sioux Falls, South Dakota 57189

The lobby at the center is open 8:00 to 4:15, closed on holidays and weekends, with tours on weekdays at 10:30 a.m. and 2:00 p.m.

- Submitted by Florence Boring

* * * * *

HOW TO GET ALONG WITH PEOPLE

1. Keep skid chains on your tongue; always say less than you think. Cultivate a low, persuasive voice. How you say it often counts more than what you say.
2. Make promises sparingly and keep them faithfully, no matter what it costs you.
3. Never let an opportunity pass to say a kind or encouraging thing, to or about somebody. Praise good work done, regardless of who did it. If criticism is needed, criticize helpfully, never spitefully.
4. Be interested in others; interested in their pursuits, their welfare, their homes and families. Make merry with those that rejoice; with those that weep, mourn. Let everyone you meet, however humble, feel that you regard him as one of importance.
5. Reserve an open mind on all debatable questions. Discuss, but not argue. It is a mark of superior minds to disagree, and yet be friendly.
6. Let your virtues, if you have any, speak for themselves, and refuse to talk of another's vices. Discourage gossip. Make it a rule to say nothing of another unless it is something good.
7. Be careful of another's feelings - (wit and humor at the other fellow's expense is rarely worth the effort, and may hurt where least expected.)
8. Pay no attention to ill-natured remarks about you. Simply live so that nobody will believe them. Disordered nerves and a bad digestion are a common cause of backbiting.
9. Remember that some people are givers and some are takers.
10. Some people are spectators and some are participators.

- via Chiasto-hi-lites, May '81

Sagenitic Agates

The term sagenite is often used to refer to acicular or needle like crystals that occur as inclusions in agate, and less frequently in quartz or other transparent or translucent minerals. There is no such mineral as sagenite. The minerals aragonite, calcite, epidote, rutile, and a host of others may make up the material called sagenite. It is most proper to refer to agates as sagenitic rather than sagenite in agate.

Sagenitic inclusions may appear as beautiful radially arranged clusters of crystals, or as irregularly arranged acicular or needle-like inclusions. The finest sagenitic inclusions will usually contrast sharply with the host rock color, and will be sufficiently dense to stand out clearly, but not so dense as to appear as just a dark spot in the rock.

Fine examples of sagenitic agate have been collected from the bean fields in the Nipomo, California, area. If any agate could be called the holotype of North American sagenitic agate, the "bean field" agates should so be called. Such agates were commonly seen at shows throughout most of the 1950's, but most of the bean fields that produced these agates have since been converted to fruit orchards or have been placed under parking lots, buildings, homes, and other developments. These agates were called "bean field" agates because they were collected from bean fields after the harvests and immediately after they were plowed.

Some superb sagenitic agates have been found at what is called "Sagenite Hill" on the Oregon-Idaho border, near Nyssa. These were collected even during the early 1930's, and such agates are still sometimes seen for sale at shows. I found a few specimens at the recent Kansas City show. The sagenitic inclusions in these agates contrasts sharply with the host rock, and it is usually a black or a white color. Some of the black crystals have sunburst-like ends that produce a bouquet effect.

With the coming of brightly colored agates from northern Mexico in the late 1940's and 1950's, a strange phenomenon happened. The cutters simply threw out the sagenitic Mexican agates, although they held onto other sagenitic agates. The colors of the Mexican agates simply overshadowed the fine sagenitic inclusions in this case. Some of the worlds finest sagenitic agates are in garbage dumps now.

Rough sagenitic agates can often be recognized by an outer scar that has a radial symmetry. Such scars do not mean that the agate will always be sagenitic, but they are good indicators. I often polish only this scar to develop the sagenitic features.

Since there will be no regular March meeting, let's try to either display some sagenitic agates at the show or at the April meeting. Cases will be furnished for the latter.

Roger Pabian
Education Chairman

OUR SISTER FEDERATIONS---The Eastern Federation

The Eastern Federation of Mineralogical and Lapidary Societies stretches from Calais, Maine, on the New Brunswick Border, to Key West, Florida. Between these two distant states, the Eastern Federation includes clubs in Vermont, New Hampshire, Rhode Island, Massachusetts, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, Kentucky, West Virginia, South Carolina, North Carolina, Georgia, Alabama, Kentucky, and that includes a lot of territory. The current president of the Eastern Federation is Paul Dunning of Syracuse, New York. Clubs may be in other states too.

From a historical standpoint, the eastern states are important to the rock collector for it is in this area that collecting first became established. Fine agates were being recovered from the Triassic diabases in New Jersey in the 1700's, and a Dr. Watson of Boston had accumulated a collection of Massachusetts agates by 1820. World famous gemological and mineralogical author, John Sinkankas, grew up in the Franklin Furnace, New Jersey, area. Thus, the eastern seaboard has had an important influence on rock collecting in early as well as modern times.

Facetable tourmaline has been known to occur in Maine for quite a few years. This occurrence was well known by 1900, and a faceted tourmaline is to be seen in our club's Gems on Location case. Maine is well known to mineral collectors, and fine beryl has been found there too.

New York is probably best known to the collector by way of its Herkimer Diamonds, tiny double terminated quartz crystals that occur in basalts in Herkimer County. Pioneer geologist, James Hall, did much of his classical studies in New York. He described many Paleozoic fossils from that area, and did some outstanding work with Devonian rocks in that state. Hall did not originally call the Devonian of New York the Devonian. Only after learning that British geologists coined the term Devonian before his own terms were used, did Hall give priority to the earlier used names, and established the rules of priority. This rule has held for about 150 years.

Pennsylvania is well known for a particular variety of serpentine that is called Williamsite. It is a light green, semi-transparent material that appears jade-like to the untrained eye. Williamsite is much softer, but takes a very nice polish.

Although Virginia is best known to the lapidarist for Unakite, a green and pink, deeply altered granite, the state is a fossil collectors paradise. Some rare Ordovician age fossils are found in the western part, near Gate City, and more common, Miocene age fossils occur in many areas along the Atlantic Coastal Plain. These include marine invertebrate and vertebrate fossils.

North Carolina is well known for a variety of gems including emerald, beryl, ruby, sapphire, and other facetable stones. Some facetable spodumene gems also are found there. The important collecting areas are commercial sites near the town of Hiddenite.

Florida, of course, is well known for Miocene and Pliocene age fossils, and the Tampa Bay coral is world famous. The eastern federation state have contributed much to rock collecting.

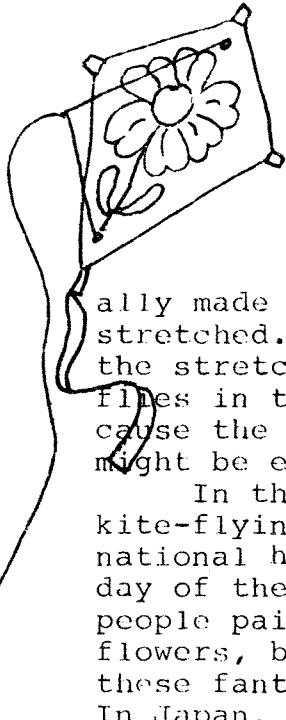
Roger Pabian
Education Chairman



THE SHAMROCK

The shamrock is a low-growing plant with three-parted leaves. It looks like the field clover of the United States and Canada. It has been the symbole of Ireland for hundreds of years. An I-rich legend about the shamrock in Ireland dates back to the time of St. Patrick. He is said to have used the shamrock and its three-leaved form to illustrate the story of the Holy Trinity, which is one of the principles of Christianity.

Shamrocks are used throughout the Christian world in the celebration of St. Patrick's Day. They are usually a clear, bright shade of green. Shamrocks will grow in most parts of the United States and the warmer sections of Canada, and they can be raised indoors in flower pots.



KITES

Kite-flying seems to be one form of recreation that knows no age limits. Both children and adults practice it. Kite-flying is an ancient custom, dating at least as far back as four hundred years before the birth of Jesus.

There are many varieties of kites. They are usually made of a light wood framework over which paper or cloth is stretched. The line, usually string or twine, is attached to the stretched paper or cloth, and this line holds the kite as it flies in the air. Wire should never be used as a kite line, because the wire may touch an electric power line and the holder might be electrocuted.

In the countries of Asia, such as Korea, Japan, and China, kite-flying is a very popular pastime. In China, there is a national holiday called "Kites' Day," occurring on the ninth day of the ninth month of every year. On this day the Chinese people paint and shape their kites to look like birds, insects, flowers, butterflies, and dragons, and all along the countryside these fantastically shaped kites can be seen dotting the skyline. In Japan, there is a kite-flying holiday on May 5.

Kites are used not only for fun and recreation but for many practical purposes as well. In World War II, kites were used as targets in gunnery practice. Also they were part of the regular equipment of life rafts, serving as a guide for searching air-men and, by use of a metal line, as an emergency antenna.

* * * * *

SHOP HINT: How To Hide A Crack

The secret of healing fractures in the cab with epoxy is to shape your stone and simipolish it. Heat the stone to 200 degrees in the oven. Mix epoxy and apply it to one end of the crack and work toward the outside of the cab so the air in the fracture is driven out and the resin replaces it. You will notice that the epoxy becomes very liquid when it touches the hot stone, and it flows right into the crack. Put the stone back into the oven for 20 minutes for the epoxy to harden. Scrape off the surplus and proceed with your final polish.

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, Zeeland, MI 49464. All subscription orders should be sent to Parrot Printing Service, 2125 Forest Avenue, Des Moines, IA 50317.



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MARCH 1983 - Issue No. 232



ROCKY SAYS, "REMEMBER THE PLACE TO BE IN '83 IS KALAMAZOO, MICHIGAN"



There are many exciting things planned for the MWF Convention this summer, including two special awards.

The first will be a donation to the AFMS Scholarship Fund in the name of the club which brings the most displays to the show. Many clubs work hard to increase their donation percentage, so this could be a fun thing.

The second will be an award for the most original, unusual or beautiful or whatever, item made from Petoskey stone. There will be a category for both individual and club creations. This could be a great project for you. Get out those hexacorals and put on your creative caps.

Shirley Carroll, MWF Show Publicity Chairperson

PRESIDENT DIANE SAYS:

Did you know - that Edward Jenner, the Englishman known for developing the smallpox vaccination, also prepared and catalogued the zoological specimens collected by Captain Cook on his first voyage to the South Pacific?

- that Robert Wilhelm von Bunsen, the German developer of the "Bunsen Burner", had lost an eye in an explosion during his earlier work with arsenic compounds?

- that these MWF committees are developing exciting things for YOU?

Safety & Field Trips - Helen Neumann, 20955 Balfour Road, Mt. Clemens, MI 48043

Swap - Miles Smith, 341 Senate Drive, Frankfort, KY 40601

Silent Auction - Norman Brown, 360 Tonga Drive, Hiawatha, Iowa 52233

Taking over as Education Committee Chairperson will be Margaret Pearson, 9034 - 24 West Lisbon Ave., Milwaukee, WI 53222

SPRING EXECUTIVE MEETING of the MWF will be Saturday, April 16 in Macomb, Illinois. The hosts will be MAPS (MidAmerica Paleontology Society) during their Fossil Expo V Show. Complete details will be sent to all members by the Secretary, Jean Reynolds.

Neutron treatment makes gemstones radioactive

Mineralogist George Rossman of California Institute of Technology recently found himself working as a detective for the gemstone industry, detecting radioactive stones.

Gemstone merchants know that the characteristic color of certain stones can be transformed to a more desirable shade by irradiation with gamma rays or electrons. Blue topaz is a common product of this process, which leaves no residual radiation. A more accessible method is bombardment with neutrons in a reactor, but it can leave residual radioactivity.

The Rossman case involved a merchant who had bought some 3000 carats of stones in Brazil. The stuff was supposed to be citrine, an orange-brown to yellow-brown semiprecious stone. A gemstone cutter found, however, that one specimen didn't behave like citrine, and the importer's Geiger counter showed radioactivity. It turned out that radioactive spodumene accounted for about 700 of the 3000 carats.

Spodumene normally ranges from pink to almost emerald green. Someone, says Rossman, probably was trying to use neutron bombardment to turn pink spodumene green, but wound up with the less desirable yellow-brown. Following sound commercial principles, he mixed the inferior stones with citrine and sold them as such.

Rossman and physicist Yuanxun Qiu examined three of the importer's stones by gamma-ray spectrometry. They found that radiation from the most active stone was about 60% above background. The primary source was scandium-46, but radioisotopes of manganese and tin also were present.

The medical risk of wearing such a stone is controversial, Rossman says, but prudent people would avoid it. Similarly radioactive gemstones have been detected, although they are relatively rare. Dealers who handle large lots of gemstones are buying Geiger counters, he adds; if they reject all radioactive stones, importation of them may stop.

..from Chemical & Engineering News, October 1982. Submitted by Edward A. Wilder, Liaison, Racine Geological Society

RETIRING PROGRAM: It is with regret we are retiring No. 33, Illowa I slide program. We believe it has excellent subject material in it, but so many comments are made about it being outdated we are returning it to it's author to be modernized. Thank you to Illowa Gem & Mineral Club and Dick Johannesen for many hours of pleasure and enlightenment from this program. My hope is they can update it, enter it in the American Federation Contest, win \$100 and return it to us.

MIXING SLIDES FROM PROGRAMS: Your program chairperson has just spent over three hours and too much eye energy resorting and getting two programs in correct order. Apparently someone used two together, some from one and some from another, then left them that way. Maybe that was the way the narrator wanted to show them, but let's give credit to the authors and put programs back in the proper order.

Please if you take a slide from a program, mark, in pencil, the program number on the left hand side, opposite the slide number. Make a list of slides being moved. Do not mark the script. After showing, return to the correct order and program!!

Louise Stinnett, Program Requests Chairperson

WHO COLLECTS THINGS?

HOBBY APPEALS TO 28%

Almost three in ten Americans are collectors, according to a national consumer study which shows that 28 percent of Americans are involved.

What items they seek to accumulate is influenced by such demographics as sex, age, education and income, the study by Foote, Cono & Belding, an advertising agency, shows.

Men are the most frequent collectors of coins, stamps and cars, the survey reports, while women prefer books and gemstones. Collectors tend to be college educated, except for those fascinated by rocks or maps, who are more likely to be high school graduates.

You don't have to make big money to be a collector but income helps, the study concludes. A high percentage of individuals with considerable interest in books, gemstones, coins, stamps and antique cars earn over \$30,000, according to the study.

Another large group that includes children and young adults is also interested in collecting but their yearly average income is only \$10,000 to \$20,000.

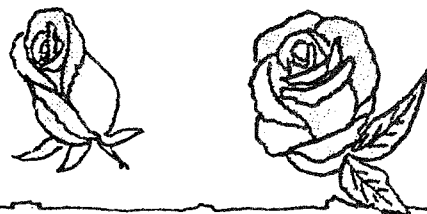
..from The Petoskey Stone ..via The Prospector

PLEASE NOTE

I have received correspondence on the matter of Child Protection but as this is only a two page publication cannot allow anymore room on the subject! My suggestion is that anyone wishing to state their views do so to the persons directly involved. This policy will continue for any future items printed in this Newsletter.
Bette Smith

OOPS!! In the February Newsletter it was printed that Ruth Mogg is Credentials Chairman. Diane Dare wants to apologize and correct this. Esther Mullaly has been chairman for a number of years and will continue with this job.

Dr. Katherine Nelson, our former Environment Chairmen, and newly appointed Education Chairman, and Scholarship Honorary Award winner this past year, died on December 29th. Katherine received her A.B. from Vassar and Ph. D. in Geology from Rutgers University and began her professional career as instructor in Geology and Geography at Milwaukee-Downer College. She was currently on the staff of University of Wisconsin-Milwaukee. The Wisconsin Geological Society had voted her an honorary membership; she had served on many committees as well as President and Leader of the Junior members. Katherine had been very ill the last few months. The Midwest Federation extends its sympathy to her husband, Frank.



PATRONIZE YOUR ADVERTISING DEALERS

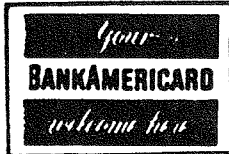
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Advertising by a rock-hobby business or interest is permitted with approval of the Board, at a rate now set at \$15.00 per full page per insertion, paid in advance. 1/2 page \$7.50, 1/3 page \$5.00 1/4 page \$3.75 (min). These ads will be placed throughout 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 - Our 25th ANNUAL SHOW on March 26 & 27, 1983.
On Saturday, the 26th, 9:00 A.M. - 9:00 P.M.
On Sunday, the 27th, 9:00 A.M. - 5:00 P.M.

Avoid a last minute rush! Get your exhibits ready now!

All Nebraska Club Rockhounds prepare your exhibits also.
This is a State Show in conjunction with our Annual Show.
Your support is needed and appreciated.

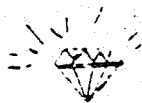
Don't Forget - There will be no General Meeting this month.
The Show takes its place.
The next Board Meeting will be on April 7, 1983.
SEE YOU ALL AT THE SHOW!



H.E.L.P.

HELP ELIMINATE LITTER PLEASE!

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