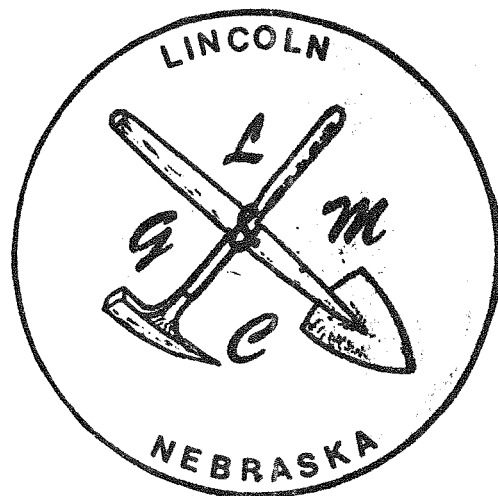


THE PICK & SHOVEL

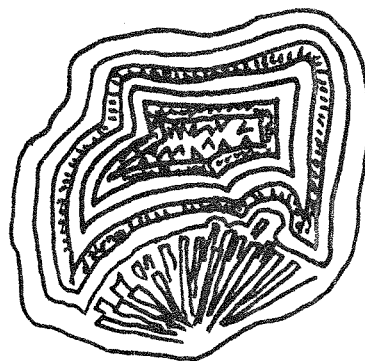
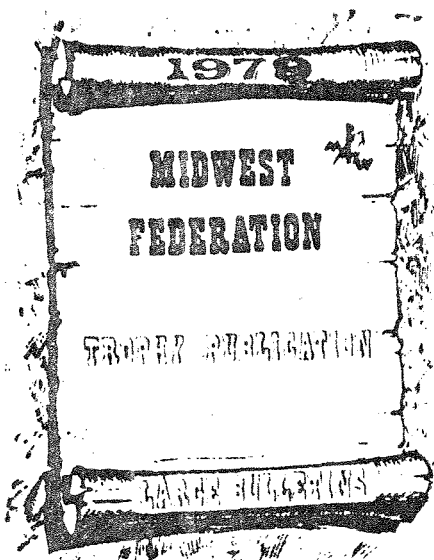


highlights
in
this issue...

SAGENITE

THE MINERAL THAT ISN'T

By Ray Lambert



Volume 21
Issue 5
January, 1981



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

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

1981 ELECTED OFFICERS:

President.....	Roger Pabian	315 'D' St.	Lincoln, 68502	474-2034
1st Vice Pres....	Irl Everett	2945 N. 65th St.	Lincoln, 68507	466-6204
2nd Vice Pres....	Howard Taylor, Jr.	910 New Hampshire	Lincoln, 68508	476-3707
Secretary.....	Nelda Oliver	5700 Otoe	Lincoln, 68506	489-5222
Treasurer.....	Phyllis Parks	2435 S. 19th St.	Lincoln, 68502	476-6798
Board Member....	Ray Lambert	1201 N. 79th St.	Lincoln, 68505	464-8552
Board Member....	Virginia Greem	6120 The Knolls	Lincoln, 68512	423-5032
Board Member....	Lois Everett	2945 N. 65th St.	Lincoln, 68507	466-6204
Board Member....	Florence Boring	2836 S. 40th St.	Lincoln, 68506	488-6243

Nominating Committee--3 years: Marie Taylor, Jim Parks
2 years: Bob Walker, Irl Everett
1 year: Wilfrid Wittman, Edwin Johnson

STANDING COMMITTEE CHAIRPEOPLE:

Programs.....	Howard Taylor	1981 Show.....	Howard J. Taylor, Jr.
Education.....		Liaison/Calling.....	Marie Taylor
Hospitality.....	Bob & Mary Walker	Refreshments/Party...	Marj Heedick
Historian.....	John & Lillie Lewis	Scholarships.....	Howard Taylor
Librarian.....	Jim Parks	Outside Displays.....	Frank Rule
Membership.....	Mary Lambert	Housing/Property.....	Bruce Simon
Field Trips/Safety..	Walt McCoy	Publications.....	Glen & Flossie Litzenberg
Sunshine Corner....	Susan Taylor	Junior Activities.....	Mary Walker
NAOESCI Reporter....	Vera Lyman	Auditing Comm. 1980....	Howard Taylor, Vera Lyman, Florence Boring

LONG RANGE PLANNING AND BY LAWS COMMITTEE:

1 year--Nelda Oliver, John Harrison 2 years--Jim Parks, Phyllis Parks
3 years--Howard Taylor, Marie Taylor

PICK & SHOVEL STAFF:

Chairman: Glen Litzenberg

Editor.....Vera Lyman, 420 N. 56th St. Lincoln, NE 68504
Club News.....Helena Baegl
Sunshine.....Susan Taylor
Circulation...Glen & Flossie Litzenberg

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.

CALENDAR

General Meeting: Saturday, January 24, 1981
 Nebr. Center for Continuing Education
 33rd & Holdrege
 Norfolk Room

Parking available north of building

"SWAP and MAGIC SHOW"

beginning at noon. (12:00 o'clock)

Regular business meeting beginning
 at 7:30 P.M. followed by a special
 Program: "Eruption of Mt. St. Helens"
 presented by James B. Swinehart
 Conservation & Survey Div.
 University of Nebraska

Board Meeting: Thursday, February 5, 1981 7:30 P.M.
 Commercial Federal Savings & Loan
 5555 'O' Street

SHOW: 23rd Annual Show
 April 11-12, 1981
 Agricultural Hall
 Nebraska State Fairgrounds

Be sure and mark these dates on your calendar.
 Let's make it another successful challenge.

NOTICE: will those members who signed for the Christmas party but
 not attend please pay \$5.00 per reserved meal to the club treasurer.
 Eleven members have not done so yet and the club is \$55.00 in the
 red on the party. RKP

1981 Federation Shows:

CALIFORNIA	EASTERN	MIDWEST	NORTHWEST	ROCKY MOUNTAIN AFMS SHOW	SOUTH CENTRAL
Anaheim, California	Lexington, Kentucky	South Bend, Indiana	Kent, Washington	Salt Lake City, Utah	Lubbock, Texas
August 7-9	June 26-28	July 23-26	August 21-23	June 4-7	April 24-26

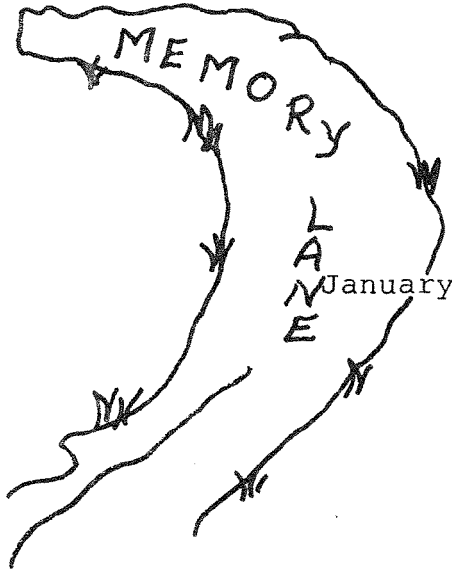
HISTORY - "Ten and Twenty Years Ago"

January 1971 . . President - Phyllis Parks
1st Vice President - Marie Wells
2nd Vice President - Roger Pabian
Secretary - Evelyn Ulrich
Treasurer - Ralph Ulrich

We were meeting at the W.O.W. Building
734 South 27th St.

At this time we were planning and work-
ing on two Shows: Our 13th Annual Show
in October of 1971, and our 1st National
Gem & Mineral Show in 1974.

Our 1971 Show Chairmen were Lynn & Marie
Wells.



January 1961 . . President - Dr. R.D. "Des" Gibson
1st Vice President - John A. Lewis
2nd Vice President - Marie Carveth
Secretary - Lois Gibson
Corp. Secretary/Treasurer -

Francis Tracy

Meetings were held at the Morrill Hall,
University of Nebr. We were starting
our 7th Year and were reminded by our
President, Dr. Des Gibson that we must
strive to (1) Increase our growth; and
(2) Increase our activeness.

1981 SHOW

With the holidays just behind us, it is time for all members of the
L.G.&M.C. to turn their attention to the various club activities
coming up in 1981.

The biggest of these club activities will be the 23rd Annual Gem
and Mineral Show. Everyone mark April 11 and 12 on your calendar
and set these two days aside so we can all participate in putting
on our club show.

As we have done for past shows, all club members are being asked
to either "work, display or pay". Start planning your displays
now. If you cannot display, please contact me and volunteer your
time and efforts to work on one of the various committees that are
being set up. If you do not work or do not display, then you will
have to pay an admission in order to see the show.

The 1981 Show Committee will start holding meetings this month.
Committee members will be notified of the time and place of each
meeting.

"Happy New Year"

Jim Taylor
1981 Show Chairman

THE PRESIDENT'S MESSAGE

The new year is off to a good start so far as club administration is concerned. Most of the committee slots have been filled by a group of very capable people. The new committee assignments appear on the inside of the front cover. Several new assignments and reassignments will be noted. It will remain my policy to try to fill committees from the membership at large and not utilize elected directors. This allows for more new ideas to be introduced to the club administration and helps show members how the club operates on the inside. Many thanks are due to the 1980 committee people who helped club activities flow along smoothly.

One sorry note, however. The education committee remains unfilled at this time because Marilyn Smits has accepted new employment out of Lincoln. Marilyn's many fine articles on the rock of the month have been very helpful to the club members and to bulletin production. We wish Marilyn much success on her new venture.

Projects for 1981 are flowing along smoothly. There is a club display at the Bennet Martin Library which will remain until January 24th. Members are urged to go view it. The display is being well enjoyed by the visitors to the fine arts section of the library. The club's educational cases are being utilized at Chet Ager Nature Center at Pioneer's Park.

The January program will be presented by James B. Swinehart II, of the Conservation and Survey Division, IANR, UN-L. The topic will be the eruption of Mount Saint Helens. This is an excellent program. The February program will be the film "Gems of the Americas" that has been produced by the Gemological Institute of America in Los Angeles. The 30 minute film is narrated by actor Richard Basehart. The March program will be on fossil collecting in Egypt and will be presented by Lloyd Tanner, Curator of Vertebrate Paleontology, at the University of Nebraska State Museum. Bev Barted of Chet Ager Nature Center at Pioneers Park will also join us at the March meeting and tell us some things about their work.

On the subject of the Ager Nature Center, I will have a 3 day Geology of Nebraska course beginning Saturday, January 24th. There is a small fee for this course that is sponsored by the Parks and Recreation Department.

Our coffee fund is not doing well. The club is losing about \$12 a month because the members are not feeding the kitty enough or at all. I hope that this area will receive additional financial support. A minimum 25 cent donation for coffee would ease the crunch.

The January meeting will be preceded by the mid-winter swap. This promises to be an exciting event. A silent auction with proceeds going to the AFMS scholarship fund will be featured. Bring some good material for this event. The club is near the 1500 percent plateau and this can be realized with proceeds from the January auction. Swappers bucks will be available at a 10 percent load.

Please note Ray Lambert's article on sagenite agates in this issue. Members are urged to bring along sagenitic agates for display. Cases will be available.

Roger Pabian
President

From the Editor's desk . . . 1981 has arrived, and I hope the holidays have left you with some happy memories which will last through this entire New Year!

The past year had its trials for our family, which at the time seemed almost overwhelming; but as we embark on this New Year, we count many blessings during the past 12 months, and are now looking forward to a "healthy and prosperous '81".

I'm looking forward to this year, especially, as Editor for L.G.&M.C. It's going to mean extra work, but I think it will truly be a challenge which I personally will find very rewarding.

I do hope that all the members will help me in this venture by contributing items for the Pick & Shovel. It's your Bulletin, and it will be what you help me make it to be.

Perhaps many of you made New Years' resolutions. If so, I wish you luck in keeping them. And even if you don't, I think they are always good objectives to help better the actions of our lives.

Count your many Blessings, Name them one by one.

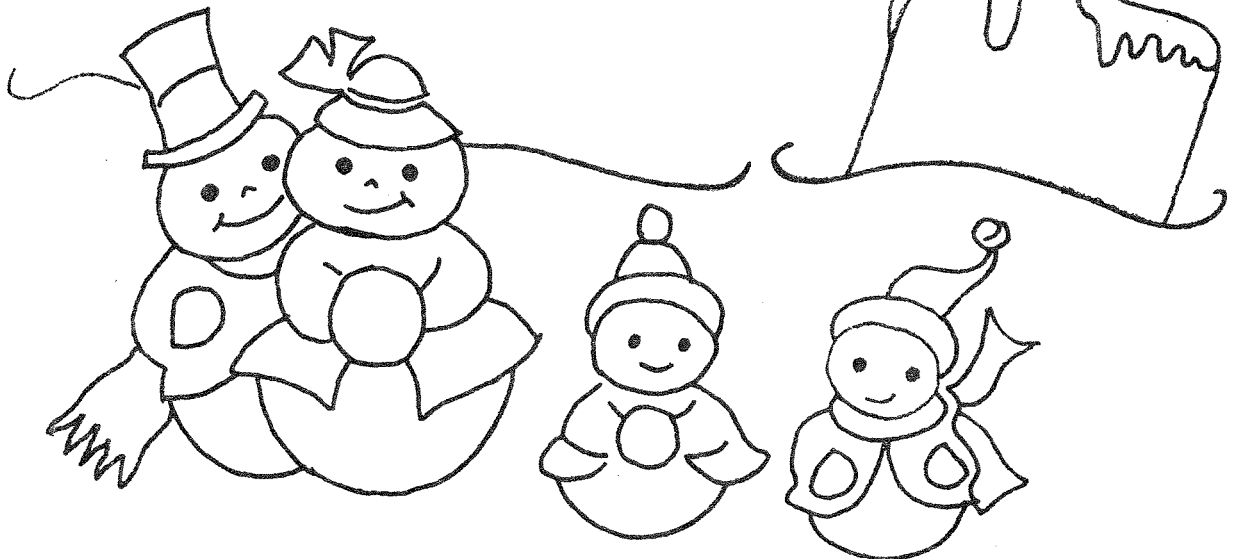
"HAPPY NEW YEAR"

Let's make this a good year for LGMC.

Some food for thought:

"FRIENDSHIP" IS A LITTLE WORD:

IT'S PEOPLE WHO MAKE IT BIG.



MINUTES - LINCOLN GEM & MINERAL CLUB, INC.
BOARD OF DIRECTORS, DECEMBER 11, 1980

CALL TO ORDER:

The meeting was called to order by the President at his home on December 11, 1980, at 7:30 P.M. Five Board members and Howard Taylor were present. Those absent were Farel Hyland, Virginia Green, Larry & Marita Bigley.

The minutes of the November meeting were read and approved.

The Treasurer's report was as follows: Cash on Hand, \$ 20.00; Transmatic account, \$ 881.14; First Federal Certificate, \$ 4,059.72; NBC Checking, \$ 809.40.

The following income was received. 1981 Dues, \$ 166.00; Sale of T-shirts, \$ 20.00 (13.00 to AFMS), Badge sales, \$ 3.00 (to AFMS); Pick & Shovel Advertising, \$ 35.00; Christmas Party meals, \$ 295.00.

The following expenses were paid: Uni. of Nebr. Center, Oct. rent & refreshments, \$ 38.98; Nov. rent & refreshments, \$ 38.98; Mail Nov. Pick & Shovel, \$ 16.80; Blue paper & plates, \$ 29.20; Uni. of Nebr. Christmas party Expense, \$ 69.00.

Motion by Vera Lyman, second by Frank Rule, the Treasurer's report be accepted. Motion carried.

BILLS:

Motion by Phyllis Parks that the Club pick up sales tax of \$ 14.00 on Christmas dinner. Second by Ed Johnson. Carried.

Motion by Vera Lyman, second by Frank Rule, that we clean and refurbish Evelyn's typewriter as a token of our appreciation for her 8 years service as Editor, with brass engraved plate on typewriter. This supercedes last month's motion.

Bills: Howard Taylor, \$ 15.00 (three guests at Christmas Party; Prof & Mrs. Schultz and Prof. Morris). Vera Lyman, \$ 12.84 (20# bond paper (1 ream) to edit bulletin). Roger Pabian, \$ 30.00 (Postmaster, '81 4th Class permit); \$ 28.00 (81 Box Rent).

Motion by Vera Lyman, second by Frank Rule, bills be paid. Motion carried.

MEMBERSHIPS:

There were 2 new applications for membership, as follows:

Janet Kehling	Sponsor - Howard Taylor, Sr.
Yvonne Carignan	Sponsor - Roger Pabian

Motion by Phyllis Parks, second by Vera Lyman, applications be approved. Motion carried.

Club membership dues are due for MWF and NAOESCI. Motion was made by Vera Lyman, second by Ed Johnson, that we maintain our membership in both. Motion carried.

Motion was made by Phyllis Parks, second by Vera Lyman, that we pay Midwest Federation Dues of \$ 62.50 and NAOESCI Dues of \$ 42.35. Motion carried.

BOARD OF DIRECTORS, DECEMBER 11, 1980

Continued - -

LIBRARY:

The Club Librarian, Kaye Graber, gave a list of recommended books for our Library. The President recommended approval of \$ 150.00 for Library fund. This matter is to be taken up with the new Board.

SCHOLARSHIPS:

A list of graduate students for likely candidates was submitted by Dr. Treves. These to be selected later.

Howard Taylor, Scholarship Chairman, requested \$ 250.00 for '80 recipients.

Motion was made by Vera Lyman, second by Ed Johnson, we reserve \$ 250.00 for 2 Scholarship recipients for 1980.

Phyllis Parks made motion, second by Ed Johnson, we give the monies to University of Nebraska Foundation. Motions carried.

PERMISSIONS:

Motion was made by Ed Johnson, second by Phyllis Parks, to give Vera Lyman, Editor, permission to establish charge account at Nebr. Typewriter, to purchase necessary supplies. Motion carried.

Motion was made by Vera Lyman, second by Ed Johnson, that Howard Taylor get a plaque for 1980 President. Motion carried.

ADJOURNMENT:

There being no further business, the meeting was adjourned.

The next Board meeting will be held on January 8, 1981, at 7:30 P.M. at American Charter Office (formerly State Federal) 40th and South Streets. All 1980 and 1981 Officers are to attend.

REOPENED:

The meeting was reopened by President Pabian.

Motion was made by Vera Lyman, second by Frank Rule, that we authorize Howard Taylor to purchase 250-300 Logo pins - change design to 23rd Annual Show.

Meeting adjourned.

Respectfully submitted,

Vera Lyman
Vera Lyman, Secretary

My personal thanks to the members of the Board and all Club members who elected me to this position and permitted me to serve in this capacity for the past 2 years. It was truly rewarding and challenging. Thank You.

Vera

"IN MEMORY"

Milford Sharp passed away in Cleveland, Ohio December 23rd, 1980, following his short illness. Mr. Sharp was elected President of the Midwest Federation here in Lincoln on June 14th, 1980, at our National Show and Convention. He had served the Federation in many capacities. Our sincere sympathy reaching out to his wife, Gladys, and all his family. He was known by many in the Federation and will be greatly missed by all.

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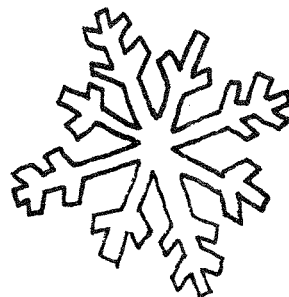
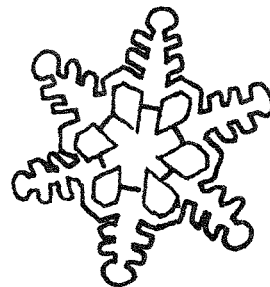
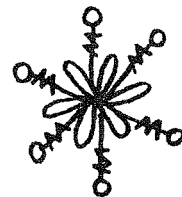
HELLO FROM THE SUNSHINE CORNER!

The sunshine of life is made up of very little beams that are bright all the time. To give up something, when giving up will prevent unhappiness; to yield, when persisting will chafe and fret others; to go a little around rather than come against another; to take an ill look or a cross word quietly, rather than resent or return it. These are the ways in which clouds and storms are kept off, and a pleasant and steady sunshine secured.

- Conrad Aiken

Get Well cards were sent this month to Hazel Greenwade and to Janet Kehling.

A Sympathy card was sent this month to Marilyn Smits.



"LIFE travels space. The days gallop beside us, like steeds that have taken the bit between their teeth.

All that some men do is to stand aside and let them pass. Others are knocked over and trampled upon, as though they were insensate things. The few leap onto the backs of the steeds and, having grasped their manes firmly, arrive at eternity and return again to our sides as the champions of time."

The Fallow Land
- via AFMS Newsletter
December 1980

CONGRATULATIONS

HOWARD TAYLOR reported on the 1980 Convention - Show held at Lincoln, Nebraska in June. A large check was donated to the MWF as their share of the profits. As a token of gratitude for their efforts this past year, HOWARD and his family were unanimously acclaimed "MIDWEST FEDERATION ROCKHOUND FAMILY OF THE YEAR".

- via January 1981 MWF Newsletter

MOTHER EARTH'S ROCK FAMILY

The earth was once a molten mass
Of liquid rock and flaming gas.
Now down below the earth's top crust
Of rock and mineral, sand and dust,
We find its "mother" hidden yet.
"Magma" will not let us forget
She rules the earth from place to place
But seldom shows her molten face.
Erupting in an angry flare
Volcanoes let us know she's there.
And then again a furious quake
And we have felt her angry shake.
But she has given earth her best,
And when in peace she lies at rest.
Her "Children", some now very old,
The story of the earth unfold.

First, "igneous", Child one, it's true,
Means "fire rock", both old and new.
For since the earth began to "jell",
These rocks have told their story well.
Formed from the cooling mass below
Plutonic rocks so slowly grow.
Thus, granite, gabbro, diorite,
Or coarser granite, pegmatite,
Are formed in giant batholiths,
In sills, and dikes, or laccoliths.
But when the liquid mass breaks through
Volcanic rocks are formed, anew.
Obsidian, Volcanic glass,
Cools quickly from its molten mass;
And pumice, foam from boiling stock,
Is hardened into light-weight rock.
Some fine grained rocks from lava flows
Are bulk from which a mountain grows.
Basalt, most common of them all,
Builds stately walls of columns tall.
It's heavy, velvety and dark,
While scoria, has made its mark
As cinder rock, with porous holes.
Then dacite with its banded scrolls
Resembles glassy rhyolite
Plus quartzless, grayish Andesite.
To name one more will be enough--
Volcanic ash, best known as tuff.

MOTHER EARTH'S ROCK FAMILY - continued

The "sedimentary" child appears;
And after many million years
This common rock can now be found
Three quarters of the world around.
From weathered rocks and soil 'twas made;
Then settled down and there it stayed
'Til nature used cement and then--
It turned back into rock again.
Conglomerates and sandstone, too,
Or breccia, to have a few;
And shales of clay, or sand, or lime,
Were formed from mud and silt, through time.
Organic matter left remains
Which sedimentary rock contains.
Quite often in a limestone bed,
In shale, or coal there can be read
The pages of earth's ancient past
Preserved in fossil print or cast.
Thus, have the settled sediments
Formed rocks with Mother Earth's cements.

Precipitated rocks, 'twas solved
Were made from minerals once dissolved.
Some formed by Dripping, through the years,
In limestone caves where there appears
Formations of such strange array
That people gaze at their display,
Stalactites and stalagmites, too.
From aragenite and calcite grew,
Halite and gypsum, one agrees,
Were left by ancient, dried-up seas.
And tufa forms, above all things,
Around the bubbling mineral springs.
Concretions form in shapes so odd;
Aprocess only known to God.
Plus nodules of varied size
And geodes, each with a surprise,
This child of "magma", you can see,
Produced the largest family.

But nature can't remain the same
So we must add another name.
Thus "metamorphic", which means "change",
Must work in methods rather strange,
For heat and pressure, hand in hand,
Both help deface our mother land.
First magma, with tremendous heat
Bakes old rocks where they chance to meet.
Some common rocks put on disguise
Where faulting makes them slip or rise.

MOTHER EARTH'S ROCK FAMILY - continued

The friction makes the rocks so hot
They metamorphose, like as not.
King Granite paid a heavy price
To abdicate to striped gneiss.
While from a lowly limestone bed
Queen Marble reigns the place, instead.
And layered shale is simply great
When quartzite takes the place of it.
Bituminous, a soft coal name,
Is changed from peat, from which it came,
Into a hard coal, anthracite,
And then into a soft graphite.
From heat and pressure, force and twist
Some rock transform into a schist.

And so the ever-changing earth
Has kept on changing since her birth.
For mountains crumble and they rise
In lofty peaks, t'ward luring skies.
But Mother Earth, herself, retains
Deep secrets which she still contains.

Composed by -
Clementine Glismann
Salt Lake City, Utah

(Niece of J.D. Young)

Submitted by J.D. Young

* * * * *

DUES ARE DUE

Dues are due as of January 1, 1981, and become delinquent on January 31, 1981. The Club Treasurer will accept your 1981 dues payment at any time. Your check may be mailed to Lincoln Gem & Mineral Club, P.O. Box 5342, Lincoln, Nebraska 68505; or given to the treasurer at the meeting January 24. Payments made after January 31, 1981 will require reinstatement by the Board of Directors and payment of a \$ 1.00 fee. Dues schedule on inside back cover.

If you have any address changes from 1980, please notify the Editor.

JUNIOR PAGE

Hi - Junior members:

As the new Editor of the Pick & Shovel, it would be nice to hear from you. I'd appreciate your ideas of what you'd like to see on your "special" page.

I think it would be nice if you would all help me out each month by sending me word games, puzzles, crossword puzzles that you have made, articles, or anything you want to put on the Junior Page that relates in any way to our hobby. Just one person runs out of ideas fast.

Here's a little quiz for you. Can you unscramble these words?

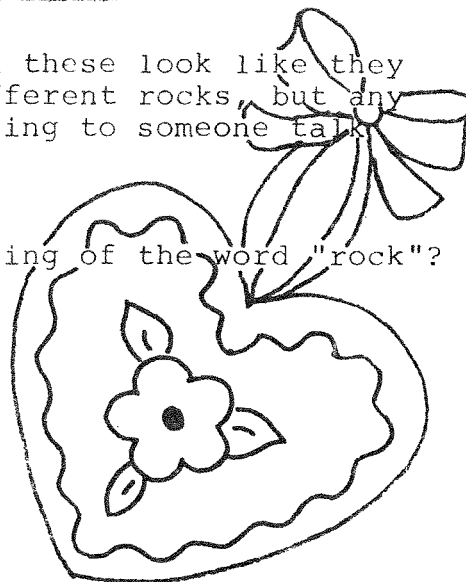
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- 2. sliofs _____
- 3. rienalms _____
- 4. ts\ayrc _____
- 5. wohs _____
- 6. rzutqa _____
- 7. deja _____
- 8. kcsro _____
- 9. pdsiyal _____
- 10. tnifl _____
- 11. catihelam _____
- 12. rlvsei _____
- 13. guorh _____
- 14. bsal _____
- 15. dhesolip _____
- 16. tceialc _____
- 17. pgmuys _____
- 18. tleahi _____
- 19. prsaje _____
- 20. nxyo _____

Just a little clue; in case you think these look like they may be hard; they are not all names of different rocks, but any word that you might hear if you were listening to someone talk about this hobby.

DEFINITION:

Do you know the definiton or meaning of the word "rock"? This is what one of my dictionaries said:

- rock - 1. a large mass of stone
- 2. broken pieces of stone
(The glacier pushed rock and earth before it.)
- 3. minerals formed into masses in the earth
(Granite and salt occur as rock.)



A HAPPY NEW YEAR TO ALL !

My! can it be a year has fled
 Since last I penned these verses?
 This leap year failed to bring me luck
 So I'm still single. Curses!

Next leap year comes in '84
 By then I'll be too feeble
 To fool around with sweet l'amour
 'Bye, Romance. Ish ka bibble!

In May we lost our dear Christine,
 Our sister-in-law beloved- -
 Her newsy letters we sorely miss.
 God rest her soul above.

In June our Lincoln Mineral Club
 Hosted the National Show - -
 It truly was a great success
 And made our club some dough.

Summer was dry and hot, Hot, HOT!
 Tomato crop was naught-
 I didn't can a single quart,
 So now they're all store-bought.

September brought our great State Fair
 I manned GOP's booth- -
 For Ronnie Reagan's victory
 I credit me, forsooth!

October- ah! none can surpass
 Nebraska's "bright blue weather"
 I'm sure the bard had us in mind:
 Sky, foliage, all together!

November 3rd I'll ne'er forget-
 That eve I was mugged and robbed.
 'Twas frightening, and vicious, too.
 For days my poor head throbbled.

I lay a week in St. E's bed
 My body wracked and sore.
 I'm dizzy yet, and shakey, too
 Doc says "Some months or more."

Now comes New year, One-Nine-Eight-One,
 I trust 'twill be a good one.
 May health, and wealth, and happiness
 By yours, with lots of fun.

December 1980
 Helena & Heidi



The Grant Quinns spent six days in Phoenix as guests of their son and wife over the holidays. Lucky people. Did you pick up any stones/rocks, Grant?

Glen Litzenberg has been having a bout with gout-- Flossie says he ate too much rich chili and kidney beans at Christmas time. That first spell subsided, and then he had another spell later. Thursday the 8th. was the first time he has been able to get his shoes on because of the swelling. You have my sympathy, Glen, as I had a short spell of gout on the instep of one foot, years ago. It's very painful.

Adeline Nolde spent Christmas with a cousin in Sutton. Lots of good eats, from her description.

Anyone have to diet after all the holiday sweets???

SAGENITE: The Mineral That Isn't!

How to define this term was brought home to me the other day when a voice from on high said; "What is sagenite?"

Was this a message from heaven? Not really. My eight year old daughter, who was recuperating from a virus in her upstairs bedroom, was looking through one of my books on agate. This seemed a reasonable question from a true bibliophile. (A connoisseur of books to the rest of us mortals.) The question should not have surprised me. Because of her reading habits, I have had to cancel some of our more risqué publications: Good Housekeeping, The Wall Street Journal and The Lincoln Telephone Book.

Trying to explain what sagenite is, is difficult to anyone unless they are a real agate nut like myself. (Some people just consider me to be a nut that is agatized.) In trying to come up with an answer for an eight year old, I discovered how easy it is to know what something is and how difficult it is to teach it to others. If you really want to learn, try teaching.

This article is basically a refresher for us old timers and an eye opener for the novice who would like to know more about inclusions in agates.

In "The Book of Agates", Leland Quick (1963) defines sagenitic agate as clear chalcedony containing tiny needles of foreign minerals, This is the broad definition used by most lapidary hobbyists. If the needles are short and stiff or slender, the agate is considered sagenitic. If it contains soft fluffy bits of moss or feather, it is termed a moss or plume agate. (Zeitner, 1964).

Dake (1950) states that sagenitic agates are "specimens with acicular or needle like inclusions. The acicular inclusions are caused by the presence of an impurity, and at some stage in the genesis of the agate this foreign mineral did not combine with the silica present but segregated itself into those unique needles running in various directions through the agate matrix. He lists the inclusions as "some of the zeolites and hydrous silicates, rutile, hornblende, actinolite, tourmaline, natrolite and others." Occasionally they "may be some metallic mineral like stibnite, marcasite and pyrite, but as a rule these metallic minerals present a moss like growth rather than acicular." Stibnite is probably the exception to the last statement. "Byssolite and crispite may be regarded as subvarieties."

Frequently the inclusions will be radiating like a fan from a common center. Others will appear as spiny sea urchins trapped under glass. Some agates show fine or coarse fibrous inclusions which are not necessarily straight and needle-like, but may be curved or even wavy. Still others will be very fine and wavy hair-like structures.

Dake feels that the included minerals were present in a vug or cavity prior to deposition of the agate. "These are frequently zeolite and hydrous silicate minerals attached to the walls of the cavity and point inward in numerous directions. When the agate in solution enters the cavity to complete the filling, the minerals are trapped within the agate." Most of Dake's observations were made using specimens of agate from the Pacific Northwest states which probably accounts for his recurring reference to the zeolite minerals which occur frequently in this area.

Research by Sinkankas (1961) has indicated the inclusions to be "acicular needles of some unknown mineral or minerals, slender distorted rhombohedral and normal rhombohedral crystals of calcite, and dark brown curved rhombohedral crystals which may be siderite or possibly some other carbonate." In Mexican nodules, angular breccia-like fragments of a soft greasy pale colored mineral which may be an alteration clay mineral such as halloysite occur. Calcite is abundant along the rims of unweathered nodules. He feels that the included minerals grew within a silica-bearing solution. His hypothesis is that the chalcedony precipitated from a true solution upon the inclusions or that it can form thin viscous gel layers.

SAGENITE: The Mineral That Isn't! - - continued

Pabian (1976) states that Ford (1958) included tourmaline, goethite, stibnite, asbestos, actinolite, hornblende and epidote as sagenitic minerals.

Pabian (1980) concludes that "agates develop from saturated silica solutions into which some impurity is introduced: spherulitic crystallization takes place and the impurities are deposited in the troughs between crystal aggregates, and bands are produced." Inclusions in nodular agates from basaltic deposits have formed under conditions of low temperature and pressure.

He states that in geologically young agates (those from Northern Mexico, West Texas and Oregon) the sagenitic minerals were generally unaltered forms of aragonite, calcite, barite, gypsum, goethite, and rutile. Many agates contain chalcedony pseudomorphs after "sagenitic" minerals, especially the geologically older agates (e.g. Lake Superior agates). It is his opinion that the sagenitic minerals were present before the agate formed and were subsequently trapped in silica gel. According to his hypothesis much of the "sagenitic" minerals are restricted to the non-banded exterior portion of the agate.

As one can see, many of the old timers were on the right track, they just weren't on the express. Current research, as shown in articles by Pabian, is probably the most reflective of the theory of agate formation. The term "sagenite" is thoroughly embedded in the language of the lapidary hobbyist. Although it is not very useful to the research scientist, it is still valuable as the adjective "sagenitic" and is generally understood by most agate collectors. Hopefully, this article will refresh old memories and increase interest in the inclusions in agate.

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THE "CLIQUE"

What is a clique? Tis a body of men
and women,
Who attend every meeting --- Not just
now and then;
Who don't miss a meeting unless they
are sick.
These are the ones that some call the
"clique".

Who don't make a farce of that magic
word "work".
Who believe in the motto, "Not a job
will I shirk".
Who will never resort to an underhand
trick.
These are the ones that some call a
"clique".

The ones who are seldom behind in
their dues,
And from the meeting do not carry the
news.
They attend to their duties and don't
seek a kick.
These are the ones who some call the
"clique".

We should be proud of members like
these.
You can call them the clique or what-
ever you please.
But there are some people who always
find fault,
And most of that kind are not worth
their salt.
They will start some trouble but seldom
will stick,
And leave all the work to be done by
the "clique".

- by Bob Schibel

via The Gem Palette
October 1980

MID-WINTER Swap

HOMESTEAD GEM & MINERAL CLUB
BEATRICE, NEBRASKA

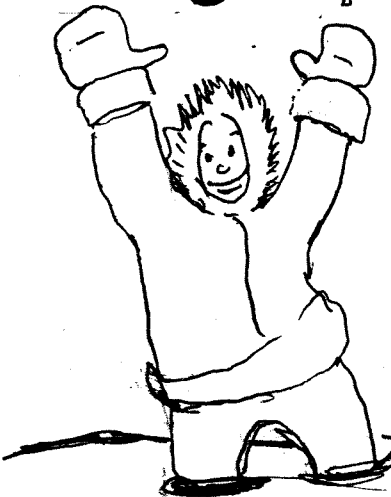
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Centenary

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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. Betty Smith, 10607 Mary Ann, Zeeland, MI 49464. All subscription orders should be sent to Parrot Printing Service, 2125 Forest Ave., Des Moines, IA 50311.



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FEBRUARY 1981 - Issue No. 211

MWF PRESIDENT DEAD

It is with deep regret that we must report the death of President MILFORD SHARP. MEL served the MWF faithfully as First Vice-President, Second Vice-President and two years as Treasurer. He also served as Chairman of the Convention and Show Committee. MEL was a member and a past officer of the Fairview Park Lapidary Society of Fairview, Ohio.

SCHOLARSHIP REPORT - NOVEMBER 1, 1980

Since the Annual Council Meeting in June 1980 at Lincoln, Nebraska, twenty-nine clubs have sent in contributions amounting to over \$1,200 to the AMERICAN FEDERATION SCHOLARSHIP FOUNDATION. By their generous gifts, fourteen of these clubs have advanced their Scholarship Status as follows:

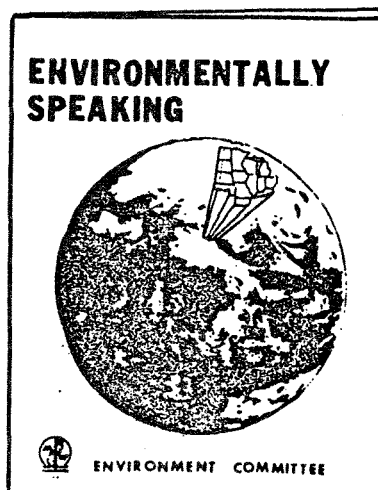
ILLINOIS VALLEY GEM & MINERAL SOCIETY	200%
MADISON COUNTY ROCKHOUNDS	900%
EARTH SCIENCE CLUB OF MISSOURI	2000%
WISCONSIN GEOLOGICAL SOCIETY	2000%
GEM CITY ROCK CLUB	1300%
WORTHERN EARTH SEARCHERS	700%
LOUP VALLEY GEM & MINERAL SOCIETY	200%
HAWKEYE GEM & MINERAL SOCIETY	1500%
DRIFTLESS AREA GEM & MINERAL CLUB	400%
HEART OF WISCONSIN GEM & MINERAL SOC	1600%
ASHTABULA GEM & MINERAL CLUB	700%
WEST CENTRAL OHIO ROCK CLUB	300%
LAKE ERIE GEM & GEOLOGICAL SOCIETY	800%
GREAT LAKES ROCK CLUB	1100%

Ten of the clubs sending in contributions did so as a MEMORIAL GIFT in memory of one of their members. By so honoring a former member they are also helping some young person to complete their education.

One club sent in a very generous check and told me they had earned their money by collecting and selling aluminium cans. This is a good way to earn that Scholarship gift. Other clubs have written that they have an annual club auction for the Scholarship Fund. Our sincere appreciation to next column please.....

all our Midwest Clubs for their excellent support of the AMERICAN FEDERATION SCHOLARSHIP FOUNDATION.

KATHARINE STEINBRENNER
Midwest Scholarship Chairman



ENVIRONMENTALLY
SPEAKING

by
JOHN BOLAND
Chairman
Environment
Committee

The new publication, ENVIRONMENTALLY SPEAKING, contains articles on conservation of energy and resources through club projects, descriptions of hazardous substances used in hobby related activities, and ways to profit through promotion of a clean environment. Your club was sent a copy of this publication. Ask your Bulletin Editor or Club President about it.

CLUB HAPPENINGS - by JACKIE STEVESON

The MID-IOWA ROCK CLUB of Marshalltown, Iowa, set up their week-end show a day early this past October so that the displays might be ready for bus loads of Elementary and Junior High Students to enjoy on Friday. The 1050 students, from nine schools, visited the show from 8:45 a.m. until 2:45 p.m., with each group staying about thirty minutes. They were given sheets of paper with simple questions, such as, "name five stones found in Iowa", which they were to turn in to their teachers. The students were allowed to move at will among the various displays. The black light booth, with its fluorescent stones was very popular. next page please.....

Many of the children returned on the following two days, bringing their parents. On seeing an opened geode, one student expressed his interest and awe by commenting, "So that's what is inside a rock!"

PUBLIC RELATIONS ARE IMPORTANT

by JUNE ZEITNER, AFMS Public Relations Chairman, 5203 S. Canyon, Rapid City, South Dakota 57701 (Note - new address)

If the Public Image of our hobby could be as excellent as our accomplishments, a lot of our problems would be solved. Here are some of the things which would be greatly improved if we had the best possible public relations, if the public had more knowledge and understanding of our aims and achievements.

1. We would get better cooperation from other organizations, civic and social.
2. We would have more opportunity to involve young people in the exciting aspects of earth science and lapidary. Our relations with schools and other institutions would benefit.
3. We would find it easier to get in private and public collecting areas.
4. We would get more new members with new enthusiasm and new ideas.
5. Our shows would have better attendance.
6. Media coverage of our activities and events would be more positive and prominent.
7. If the public as a whole perceived us as an important, dynamic force in America, this attitude would inspire us all and renew our own dedication to our aims, and our own pride in all our projects.

How do we achieve that kind of public image? By working together. Just as we did in forming our Federations. Just as we did in the Scholarship Foundation. It is a big job..not for only one committee, or one club or one Federation, but for every single one of us. And it is a job which is virtually never done, for we are continuously relating to other people and other groups.

This year AFMS has a Public Relations committee which will seek to offer guidelines to large clubs and small, rural clubs and urban, new clubs and old, on how to have better public relations. If you have any questions or suggestions please write me. I would also like to remain on your BULLETIN list. (Thanks for those bulletins during the years I was Merit Awards Chairman and AFMS Associate Editor.)

OUTSTANDING CRAFTSMANSHIP & EXHIBITING

Over the centuries some exceptional artisans have demonstrated talent in creating metal artifacts. Some by casting, some by forming and others by construction.

Those of us who had the opportunity of attending the National Show in Lincoln, Nebraska, in June of 1980, saw an example of sandstruced silver artifacts. They were made by an outstanding artisan, BOB KOEPLER, of De Pere, Wisconsin. He is a member of the Madison Lapidary and Mineral Club of Madison, Wisconsin. His work, mostly in wearable artifacts, is exquisite - silver feathers, tiny Indian Moccasins with a tiny hole on the toe for exit and entry of the spirit, forests, animals, teepees, log cabins and many others. With this he conveys that he loves the great outdoors of nature and man's relation to it.

All of the items he had on display were exhibited in a manner in keeping with the theme of the artifacts, resulting in a compelling persuasion of "come and look".

Although it was not displayed competitively, this beautiful work resulted in BOB being awarded the prestigious American Federation President's Trophy for the most outstanding exhibit at the Show. It also evoked a comment observed in the guest register at his exhibit - GOD MUST GUIDE YOUR HANDS.

FRED A BERMKE, Wisconsin State Director

MWF ACTIVITIES

Between now and July 23-26, 1981, several committees will be active getting ready for the Convention and Show in South Bend, Indiana. A couple of these committees are looking for more work! They are the BULLETIN CONTEST and ALL-AMERICAN CLUB CONTEST committees.

There are several categories that can be entered. 1. New Editors, 2. Small Bulletins, and 3. Large Bulletins. Every club gets a set of rules for entering. If not, you should contact JOHN MCFADDEN to get them. Illinois has about 43 clubs and I would like every one that has a bulletin to enter the contest. The feedback from the committee will help to make your bulletin better, even if it doesn't win.

The ALL-AMERICAN CLUB CONTEST is a good way for you to brag about your clubs accomplishments. Let's get with it, especially the clubs in Illinois.

JIM EDWARDS, Illinois State Director

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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 \$10.50 per full page per insertion, paid in advance. 1/2 page \$5.25, 1/3 page \$3.50, 1/4 page \$2.75 (min). These ads will be placed throughout the bulletin as space permits.

Subscriptions to THE PICK & SHOVEL are \$3.00 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 January Meeting will be at the Nebraska Center for Continuing Education, 33rd and Holdrege.

This meeting will begin at Noon (12:00 o'clock) with a Swap and Magic Show throughout the afternoon.

The regular Business Meeting will begin at 7:30 P.M. followed by a "spectacular" program.
"ERUPTION OF MT. ST. HELENS"

PLAN TO ATTEND.

DON'T FORGET

DUES ARE DUE - - - - DELINQUENT JANUARY 31st.

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