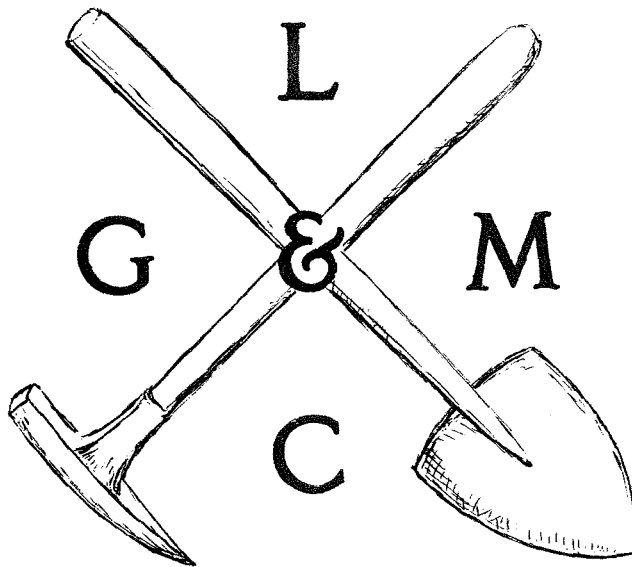


THE PICK & SHOVEL



OFFICIAL PUBLICATION OF
LINCOLN GEM & MINERAL CLUB
LINCOLN, NEBRASKA

Volume 19

Issue 4

December 1978

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

Regular Meetings: 4th Saturday of the month, September thru May, 7:30 P.M.
1978 - Trabert Hall, Lower Level, 2202 So. 11th St.

1978 ELECTED OFFICERS & COMMITTEE

President.....	Howard Taylor	910 New Hampshire	Lincoln, 68508	432-3707
1st Vice Pres....	James Marburger	1910 So.26th,Apt.B	Lincoln, 68502	432-0214
2nd Vice Pres....	Florence Boring	2836 S. 40th St.	Lincoln, 68506	488-6243
Recording Secy..	Frances Tracy	3420 Frost Court	Lincoln, 68510	475-1885
Treasurer.....	Joella Olson	4831 S.Haven Drive	Lincoln, 68516	489-5380
Board Member....	Don Carter	1101 Driftwood	Lincoln, 68510	489-3442
Board Member....	Bob Daniels	2941 No.42nd St.	Lincoln, 68504	467-4051
Board Member....	Virginia Green	6120 The Knolls	Lincoln, 68512	423-5032
Board Member....	Ray Lambert	1201 N. 79th St.	Lincoln, 68505	464-8552

Nominating Committee-3 years..Marita Bigley,Lynn Wells; 2 years..Marie Wells,
Irl Everett; 1 year..Phyllis Parks, Ray Lambert

STANDING COMMITTEE CHAIRMEN:

Program	Florence Boring	Liaison & Calling	Marie Taylor
Education	James Marburger	Committee	
Hospitality	Vera Lyman	Refreshments	Bob/Sylvia Daniels
Historian	Lois Everett	Scholarship	Dick/Shirley Roberts
Librarian	Stan/Hazel Greenwade	Publications	Edwin/Vivian Johnson
Membership	Marita Bigley	Housing & Property	Larry Bigley
Field Trips & Safety	Frank & Tom Rule	Audit Comm.'78	Laurence A.Wightman L.Wightman,R.Pabian & B. Daniels
Sunshine Corner	Susan Taylor	1978 Show Chairman	Don Carter
NAOESCI Reporter	Evelyn Ulrich	1979 Show Chairman	Glen Lyman
1978 Christmas Program Committee	Glen/Flossie Litzenberg		

LONG RANGE PLANNING & BY-LAWS COMMITTEE

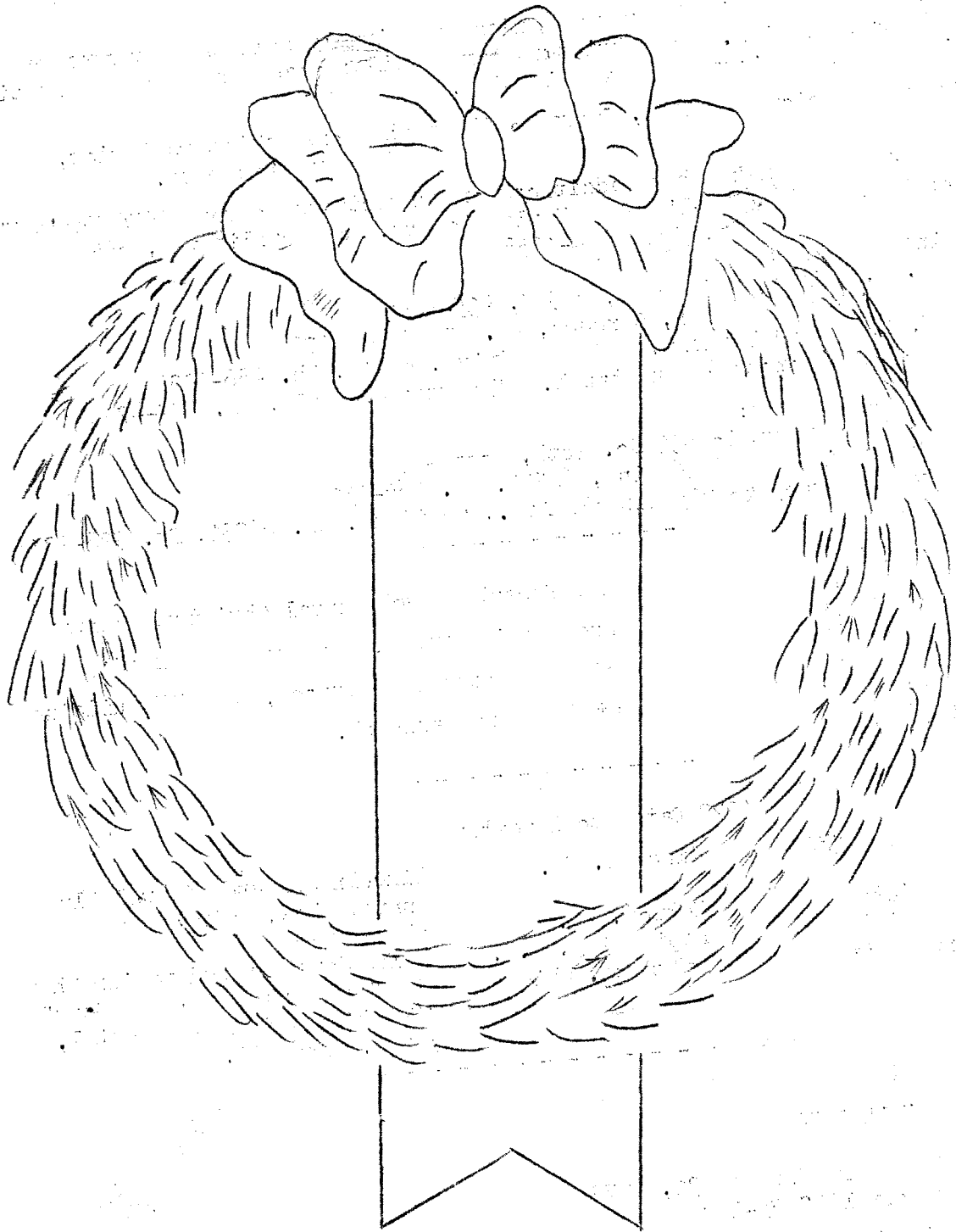
1 year remaining-Frank Rule & Phyllis Parks, 2 years-Larry Bigley & Don Carter
3 years to serve-Nelda Oliver & John Harrison (John-Chairman for 1978)

PICK & SHOVEL STAFF: Chairman Larry Bigley (466-0211)
Editor Evelyn Ulrich, 3521 S.48th St.,Lincoln, Ne. 68506, Phone 488-9051
Club News Helena Baegl Artwork Stenciling Jim Parks
Typist Flossie Litzenberg Publisher Phyllis Parks

Deadline for material to be printed is 1st of month it is to appear.

Subscriptions to the Pick & Shovel are \$3.00 per year mailed. Advertising by a rock-hobby business or interest permitted with approval of Poard, at a rate now set at \$10.50 per full page per insertion. 1/2 page-5.25,1/3 page-3.50,1/4-2.75(min)

Articles published in THE PICK & SHOVEL may be reprinted if credit is given the author and the bulletin, and a copy of the publication is sent to the Editor.



MERRY CHRISTMAS,

HAPPY NEW YEAR!

The Pick and Shovel Staff

Christmas Party, December 16, 6:00 P. M., Colonial Inn, 56th and Cornhusker Highway. Don't forget to bring a dozen Christmas cookies for dessert. Information concerning the menu and cost of dinner is in your November bulletin. If you have further questions, contact Marie Taylor or Vera Lyman who are in charge of the party. Lovely slides will be shown by Louise Baugher.

No General Meeting in December - unless we finally hold the November one if Mr. Weather permits. The Christmas party will replace the December meeting. Officers will be installed at this time.

Board of Directors Meeting, January 4th at the home of Howard Taylor, 910 New Hampshire.

Please check and make these additions or corrections to your 1978 Who's Who:
 New Members 3/2/78 -Richard (Verla) Bowers, 6817 Burlington, 68507
 Phone 464-1258

Reinstatements:

- R. M. Oliver, 2801 U St, 68503, 435-8863
- Albert (Olga) Olson, Ceresco, Ne. -Toll 665-2781
- H. O. (Orma) Paulson, 422 Dale Drive, 68510, Ph. 488-2030
- Raymond (Dorothy) Sincebaugh, 1756 Sumner, 68502, Ph. 477-4708

Change of address:

- Howard Puckett to 531 So. 18th, Room 407
- Edward Ridge to 6236 Vine, 68505, Ph. 466-3534
- Frances Tracy to 225 Lincoln Ave., Cortland, Ne. 68331, Ph. 798-7332



The December 1968 Annual Christmas Party and meeting was held at our new meeting place on Sunday afternoon, the NOW Building at 27th and Randolph.

1979 Dates to Remember

March 24th and 25th	Lincoln, Ne.	Lincoln Gem and Mineral Club Annual Show, Fairgrounds
June 9th & 10th	Hebron, Ne.	State Swap
June 8th to 10th	Rapid City, S.D.	Rocky Mountain Federation Show
August 2nd to 5th	Columbus, Ohio	MVF "Wonderful World of Gems" '79 Show, Veterans Memorial, 300 W. Broad St.

NOW IS THE TIME

TO PAY YOUR DUES

Must be paid before January 31, 1979 according to our LGMC By-Laws

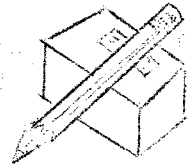
Payable to Phyllis Parks, Treasurer throughout Dec. then to attention of your new treasurer.

Mail to Treasurer, P. O. Box 5342, 68505



FROM THE PRESIDENT'S DESK

As we approach the close of another year, I guess that it is time to start our re-evaluations. I am sure we all do this to some degree in our own lives. We can look back and see what we accomplished for the year of '78 and make plans for '79.



It is also time to think in terms of our club. Did we accomplish enough and what we should do for the coming year. We have a lot of work cut out for us for the next two years, and I am sure we will get it all done. It will require a lot of work from a lot of people so I hope you are all willing and ready to go.

Complaints can be very constructive but they should be voiced at the right time and in the right place. Let the board hear your suggestions and complaints and the best place for this is at our regular meetings.

Hope you have all paid your dues for 1979, they are due. We are receiving our new membership cards and they should be ready quite soon.

To all members of the Lincoln Club and all Rockhounds we know -

A Merry and Blessed Christmas

The Taylor Family

Howard, Marie, Jim and Susan

.....

"Progress Report"

1979 SHOW
LEADER
21st

The vacancies for Chairpersons which were recorded in the October "Pick and Shovel" have been filled. They were assumed as follows:

- Competition - Larry Bigley
- Programs - Jim Marburger
- Silent Auction - Mr. & Mrs. Paul Rueter
- Club Refreshments (Sat. eve) & Coffee - Sylvia Daniels
- Raffle Committee - Mr. & Mrs. Grant Quinn

The Show Committee is researching the possibility of a Portable Television and a PDQ Drill for our Raffle. This seemed an interesting choice for the Rockhound and non-rockhound alike.

Our next Show Committee meeting will be held shortly after New Year's Day. I'll be getting in touch with Chairpersons as to date and time..

My Thanks to all Chairpersons.

Please offer your assistance to any committee. I'm sure they will appreciate it.

"Happy Holidays" to All!

Your 1979 Show Chairman Glenn L.

From the Editor's desk... The year 1978 is just about over. It has been a good year, with lots accomplished. 1979 will find LGMC members unusually busy preparing for the spring show as well as the big one - the 1980 National Show.

As the year closes, your editor wishes to thank those who have so faithfully helped with the bulletin. Flossie Litzenberg for typing stencils, and Phyllis Parks, Marita Bigley, and Linda Parks for typing stencils while Flossie is away. Jim Parks for the nice art work, Flossie for the Zodiac, Susan Taylor for her Sunshine Corner, Helena Baegl for her news column, Our Historian, Lois Everett, for her 10 Year Ago, and J. D. Young for his ever interesting and witty articles. We so much appreciate the rest of you who have contributed items for the Pick & Shovel. Your contributions are what we need to produce an interesting bulletin. We wish to thank Nelda Oliver for such a nice job of printing the covers, and Phyllis for the rest of the printing, and also for her encouragement and wonderful help. To the Bigleys we owe a debt of gratitude for so generously opening their home to us for assembling the bulletin and for mailing it for us. We also wish to thank Hazel and Stan Greenwade for their help putting the bulletin together. It takes a lot of work and involves a lot of people to give you a bulletin. Their loyalty is greatly appreciated.

THE MOON OF WINTERTIME

Huron Indian Carol

'Twas in the moon of wintertime when all the birds had fled
That mighty Gitchi Manitou sent angel choirs instead;
Before their light the stars grew dim
And wondering hunters heard the hymn:
Jesus, your king is born,
Jesus is born, in excelsis gloria!

Within a lodge of broken bark the tender Babe was found,
A ragged robe of rabbit skin enwrapped His beauty round,
But as the hunter braves drew nigh,
The angel song rang loud and high:
Jesus, your King is born,
Jesus is born, in excelsis gloria!

The earlipest moon of wintertime is not so round and fair
As was the ring of glory on the helpless infant there;
The chiefs from far before him knelt
With gifts of fox and beaver pelt.
Jesus, your King is born,
Jesus is born, in excelsis gloria!

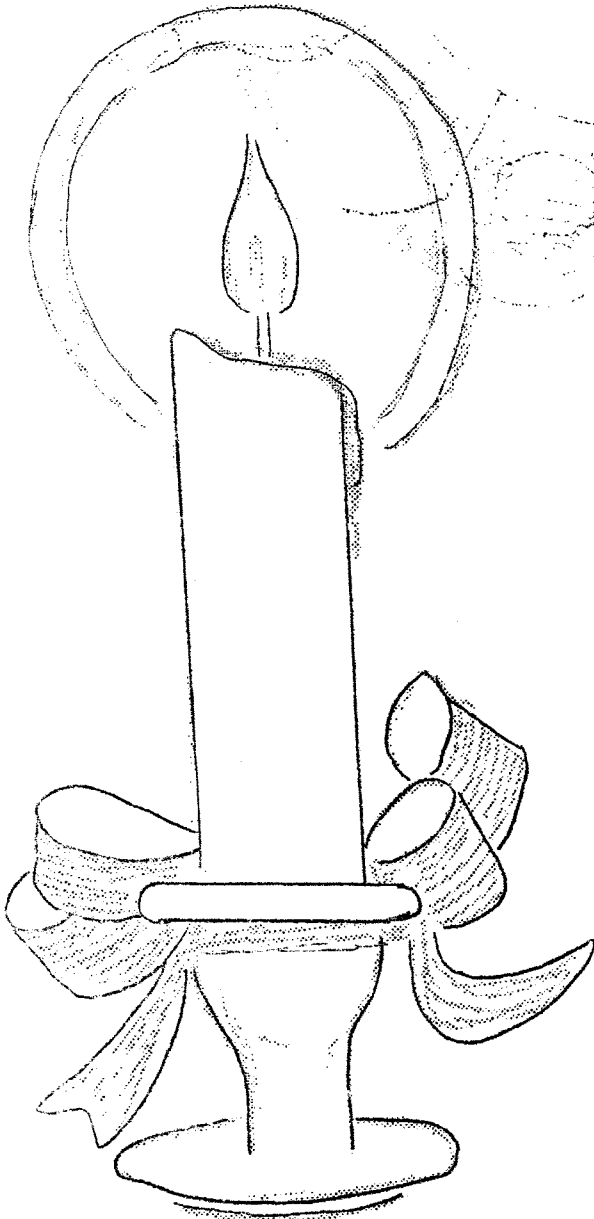
This carol comes from Canada. French missionaries converted the Indian tribes to Christianity. They Celebrated Christmas in their own manner.

LAST MONTH'S meeting has been postponed twice now (energy related problems) and the weatherman does not sound too promising for this next week-end. Wouldn't it be a switch if our annual election of officers had to take place at the Christmas Party? The elected officers to be installed at once. When our club was in its infancy and growing-up years that was the policy, with no prior publication - simplicity itself.

We had made plans to get the December bulletin out well ahead of the Christmas Party and since it is nearing completion we'll just have to report the "Delayed" November meeting in January.

Your Publisher would like to express her hopes that all have a very wonderful Holiday Season and we'll be with you again in January.

=====



Greetings from the Sunshine Corner:

The Christmas candle,
So warm and bright,
glows with the spirit
of the season
by giving of itself.

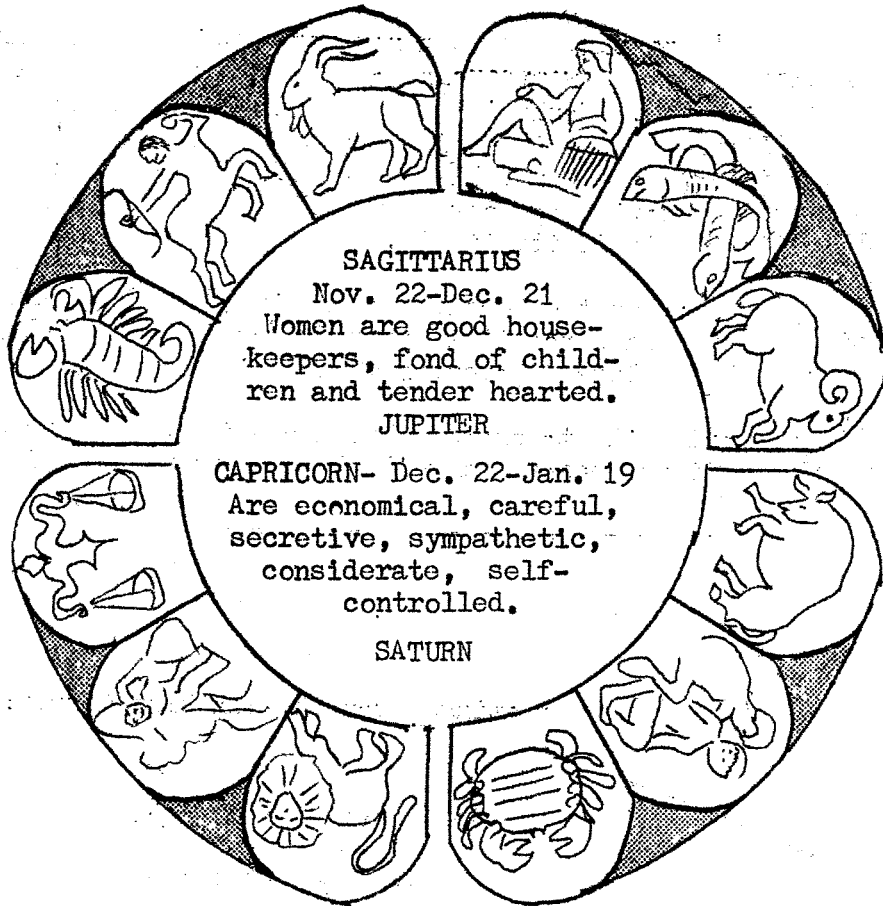
Mary Dawson Hughes

This month get-well cards were sent to:

Mrs. C. Ray (Marion) Waddle
Mrs. Raymond (Mildred) Pfeiffer
Mrs. Grant (Goldie) Quinn
Mrs. Florence Boring

Until next time!

Suze Sunshine



TURQUOISE or LAPIS LAZULI - BIRTHSTONE for DECEMBER
by Flossie Litzenberg

TURQUOISE: is cryptocrystalline with a hardness of 5. It is found in cracks of siliceous schists and sandstones. The most valued is the rich blue, permeated with brown stains from iron compounds. It can be ruined by soap and water. The stone is said to endow the wearer with prosperity and victory over affairs of the heart. It is said to cheer the depressed soul, bring its wearer health and bring him good fortune. The condition of the wearer's skin also affects the color and perspiration can turn it green.

LAPIS LAZULI: or Lazurite is sodium, aluminosilicate with sulphur. It has a hardness of 5. Usually mauve-blue, blue, mauve or greenish-blue. At one time lazurite was powdered and used as paint.

Will members please, bring any specimen of Turquoise or Lapis lazula they may have for "Show and Tell".

WATER

- The Great Substance - a mineral

- by J. D. Young

Water - Hydrogen oxide - H_2O , without it life would be impossible anywhere on earth. There is little evidence that life, as we know it, is found on any other planet in our solar system. They appear to have a water-deficiency as well as other conditions unfavorable to life, and without water life does not seem to be possible. So Old Mother Earth seems to be unique, at least at present.

A molecule of water is formed when two hydrogen atoms combine (burn or oxidize) with one atom of oxygen, both gases at ordinary temperature. The compound hydrogen oxide can exist in any of the three common states, solid, liquid or gas, depending on temperature and pressure. The burning flame of pure hydrogen is very hot but gives little illumination. Most fuels contain carbon as well as hydrogen, and if combustion is complete the fuel combines with oxygen to form carbon dioxide and water. If insufficient oxygen is available some carbon monoxide is formed, and it can be deadly because it reduces the oxygen-carrying capacity of blood, and the body has difficulty in getting rid of the resulting compound.

Natural processes tend to keep carbon dioxide, water and oxygen in proper balance in the atmosphere, but man's activities may disrupt it. Plants absorb carbon dioxide through green leaves, remove the carbon and combine it with water to form carbohydrates, using solar energy in a process known to scientists as photosynthesis, and oxygen is again freed to the atmosphere. Animals, including humans, inhale this oxygen and combine it again with carbon obtained from food and exhale the carbon dioxide thus formed, where it may again be used by green plants. This carbon-oxygen-water cycle is one of nature's most important processes. Without it life on earth could not exist. It went on for untold generations before we ever understood its chemistry. There are still some things yet to be learned about it.

Water is easily recognized in any of its three common forms or states, solid (ice), liquid (water) or gas (live steam). It can be changed from one state to another by simply changing pressure or its temperature, and not its chemical composition. Many of our most important processes involve one or more of these changes of state, for example- heating, cooling and power devices.

Water's properties or characteristics are unique in so many respects, but we take them for granted because it is such a common material. Here are a few of them. Liquid water contracts when cooled until it reaches 4 degrees C (39.2°F). If cooled more it again expands, when it changes state to solid ice at 0°C or 32°F it expands with great force, enough to burst most confining containers. If cooling continues it will again reach a point where it will contract. This explains why bodies of water freeze over on top instead of the bottom, fortunate for aquatic life and skaters. It also explains why a frozen pond cracks open in extreme cold weather. When liquid water changes state at 100°C or 212°F it expands enormously, and again with great force. The steam engine is a good example.

When water changes state at either the freezing point or the boiling point there is a greater heat exchange than that for any other common substance. At the freezing point this is 80 calories per gram, called by physicists

(continued next page)

WATER - The Great Substance - a mineral (continued last page)

the heat of fusion, and at the boiling point 540 calories per gram, called the heat of vaporization. By contrast mercury's heat at fusion is only 2.82 and heat of vaporization is only 65. Mercury is 13.6 times as heavy as water, so its specific gravity is 13.6, and its density 13.6 grams per cubic centimeter.

Mercury can be frozen if cooled to 39°C below zero, and it boils at 357°C (675°F), making it suitable for thermometers, except extremely low points. It expands and contracts at a very uniform rate throughout the liquid state, making for great accuracy. Mercury (hydrargyrum), also called quick silver, furnishes a standard for expressing pressure measurement, for example 760mm for one atmosphere at sea level. It can be used instead of water in special steam engines. Its "steam" is condensed and used over again. Hydrargyrum means water silver. Many metals dissolve in mercury, making amalgams. The source of most mercury is a simple compound with sulfur, HgS, cinnabar. Very little is found in free state.

Antifreeze solutions in water must have several suitable properties, besides low freezing point. It should be non-corrosive, non-volatile, non-flammable, completely stable and thoroughly soluble in water and, of course, reasonable in price. Ethylene glycol, sold under various trade names, seems to be most suitable. Alcohol was once used, but because of its low boiling point it would evaporate from the solution making the remaining water more easily frozen. Honey was used with water, but it became too costly.

Salt brine would have more bad features than good for an anti-freeze, but it can be used as a heat-exchange fluid in artificial ice plants. Early household refrigerators used a "brine tank" filled with a honey solution surrounding the freezing compartment. Our first electric refrigerator about 50 years ago, a Copeland with belt driven compressor mounted in the basement and connected with tubes running up to the box in the kitchen to carry the refrigerant fluid, had a honey "brine tank" like that. Within a year's time the honey leaked out and followed the compressor lines to the basement. After the mess was cleaned up the repairman replaced the honey with alcohol, which was a poor substitute. The bees knew their chemistry.

During the second World War I worked one summer on the night shift at the Good Ice Plant on North 48th Street, Lincoln. About 10 p.m. one night a customer drove up to the loading dock and asked for 100 lbs. of crushed ice. I remarked "That should make a lot of homemade ice cream." The customer's reply was "Who is making ice cream? This is for mint juleps." Water is one of our most important minerals, in any of three states.

J. D. Y.

P. S. 100 lbs of crushed ice would cool a lot of mint juleps - or ice tea.

.....

When grinding obsidian, and sanding it, always grind from the center out; otherwise the wheel and sanding belts will pick up minute chips of glass that will scratch your stone.

From the Pegmatite via Rock Vein & Diggin's from Dakota

JUNIOR PAGE

Dear Juniors,

Were you able to answer all the questions in last month's bulletin?

Here are the answers:

1. Amethyst
2. Chatoyance; A moving beam of light seen in certain minerals when they are turned.
3. Only the color
4. Jet, amber, coral
5. Stone crystals shaped like a cross. Their official name is "Staurolite".



Merry Christmas, Happy New Year!

Mrs. Ulrich

Why did Santa take only seven reindeer with him on his journey?

Mary Ann Olson says it's because Comet stayed home to clean the sink.

via THE ROCKHOUND SCOOP

"How come you are wearing only one spur?" one cowpoke asked another.

"The way I figure it," came the reply, "If I can get one side of the horse running, the other side will, too."

3M Center Span via Rockwood Rockhound News

Linda Parks reports that she finds CHRYSOPRASE a very interesting stone. It has the lovely green color of Christmas, takes a great polish and can be used in many ways for jewelry.

She also finds it a very productive source of letters for word games. She has made well over 100 words from the letters appearing in it. She would like to challenge you to top her list. For the LGMC Junior who presents the longest list by the January meeting Linda has a piece of rough CHRYSOPRASE. (Judge to be Mrs. Ulrich.) No proper nouns or plurals!



POTPOURRI

Scientists in Washington D.C. have been successful in causing diamonds to flow like melted plastic. They exerted a pressure of 25.2 million pounds to two small cut diamonds. This is said to be 700 times the pressure Mt. Everest exerts on the earth's crust.

Did you know that black onyx is almost always dyed chalcedony? Its durability is very good and its color is stable. It is popular as a designer stone.

According to a popular jeweler's magazine chains in longer lengths and in multi layers are expected to be quite popular this year.

What is a "Brazilian Emerald"? Transparent green tourmaline, sold to tourists under the name "Brazilian Emerald". Unfortunately true emerald is also found in Brazil, which only adds to the confusion.

Mahdlen Fix, THE LOOP SCOOP

An old Tennessee mountaineer and his wife were sitting in front of the fireplace one cold winter evening when the wife said to her husband, "Zeke, you haven't brought in a coon for over a month, and them poor hounds feet are all cut up and sore from running around them thar hills".

"Yeah ah know Liz", he replied; "Ah've been thinking about going down to Si Perkin's kennels and seein' if ah can buy a couple of those knew fangled Rock Hounds ah heard about when I was down to the city last summer."

Stan Palmer, Jade Journal via G I Nugget

A successful method of polishing stubborn material in the tumbler ...even Apache Tears... is a mixture of 1 lb. cerium oxide with dry corn meal for the final polish. Use dry and tumble for three days.

American Federation Newsletter

To brighten up those marcasite and pyrite crystals, soak them over night in a solution of oxalic acid-2 ozs. to a quart of water.

Puget Sounder via The Prospector

Cleaning Desert Roses... Immerse in a solution of "Axion" for 12 hours at least. Brush slightly and rinse in cold water.

T-Town Rockhound via "Slab and Gab"

Handy files for trimming cabs, etc. can be made from popsickle sticks. Coat one half of the stick with epoxy and sprinkle with 100 or 180 grit silicon carbide. Allow to dry and repeat on other side.

via The Loup Scoop



Everett Lapidary Shop

THE CAPITOL CITY'S FIRST ROCK SHOP

2941 North 65th

PHONE 466-6204



*Merry Christmas
and
Have a Happy 1979*

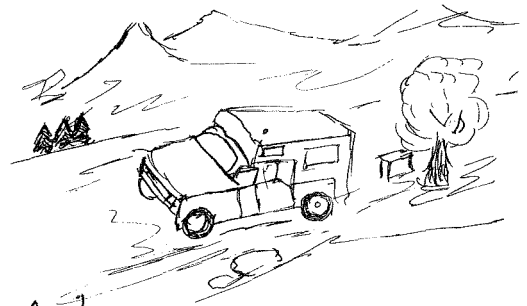


"SATISFIED CUSTOMERS ARE OUR BEST ADVERTISEMENT"

TELEPHONE
466-1697

TOM & LEFTY'S
ROCK SHOP

6333 KEARNEY STREET
LINCOLN, NEBR. 68507



*Seasons Greetings
To all Our Rockhound Friends*

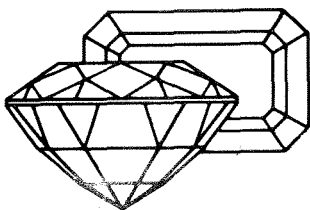
JEWELRY AND CUSTOM CUTTING

Larry's Gems and Minerals

Phone (402) 466-0211

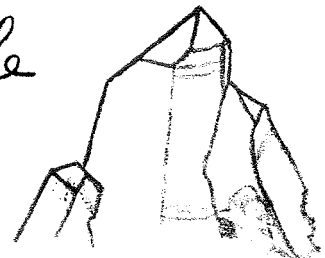
6126 Hartley Street

Lincoln, Nebraska 68507



*Best Wishes
Now and Throughout the
New Year*

CUSTOM CUTTING



Lincoln Gem & Mineral Club
Box 5342
Lincoln, NE 68505



BULK RATE
U.S. POSTAGE
PAID
LINCOLN, NE
PERMIT NO. 709

Exchange Editor: Evelyn Ulrich
3521 S. 48th St.
Lincoln, NE 68506

Historians File
2941 No. 65th Street
Lincoln, NE 68507

