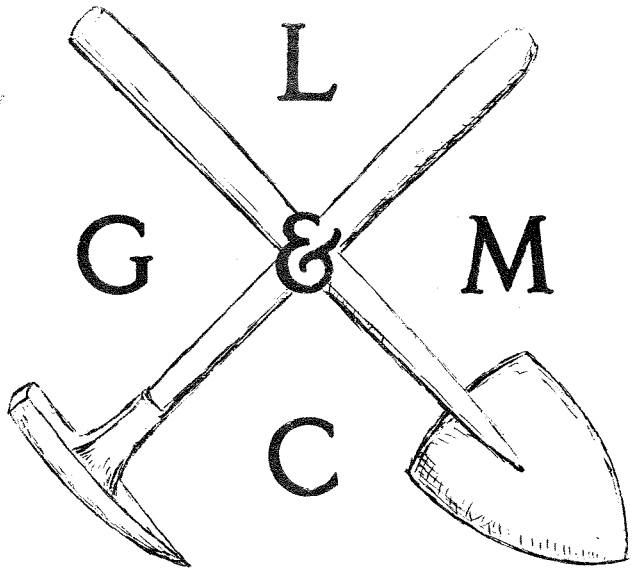
THE PICK & SHOVEL



FEB 1980

OFFICIAL PUBLICATION OF

LINCOLN GEM & MINERAL CLUB

LINCOLN, NEBRASKA

LINCOLN GEM AND MINERAL CLUB, INC.
P. O. Box 5342, Lincoln, NE. 68505

The purpose of thie 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)
Nebraska Academy of Sciences
Community Arts Council of Lincoln

Regular Meetings: 4th Saturday of the month, September thru May, 7:30 P.M.
1980 - Trabert Hall, Lower Level, 2202 South 11th Street

1980 ELECTED OFFICERS

President.....	Roger Pabian	315 "D" St	Lincoln, 68502	474-2034
1st Vice Pres...	Larry Bigley	6126 Hartley	Lincoln, 68507	466-0211
2nd Vice Pres...	Edwin Johnson	1800 Pawnee	Lincoln, 68502	423-9075
Recording Secy..	Vera Lyman	420 N. 56th St.	Lincoln, 68504	464-6089
Treasurer.....	Phyllis Parks	2435 S. 19th	Lincoln, 68502	476-6798
Board Member....	Marita Bigley	6126 Hartley	Lincoln, 68507	466-0211
Board Member....	Virginia Green	6120 The Knolls	Lincoln, 68512	423-5032
Board Member....	Frank Rule	6333 Kearney	Lincoln, 68507	466-1697
Board Member....	Farel Hyland	6934 Francis	Lincoln, 68505	466-3387

Nominating Committee--3 years..Bob Walker, Irl Everett; 2 years..Wilfrid Wittman, Edwin Johnson; 1 year..Marita Bigley, Lynn Wells

STANDING COMMITTEE CHAIRPEOPLE:

Programs	Howard J. Taylor, Jr.	Liaison and Calling	Marie Taylor
Education	Marilyn Smits	Refreshments	Flossie Litzenberg
Hospitality	Goldie Quinn		
Historian	Lois Everett		
Librarian	Kay Graber	Scholarship	Howard Taylor
Membership	Mary Lambert	Outside Displays	Bruce Simon
Field Trips & Safety	Walt McCoy	Housing and Property	Dick Roberts
Sunshine Corner	Susan Taylor	Publications	Glen Litzenberg
NAOESCI Reporter	Evelyn Ulrich	Auditing Comm. 1980	TBA
1981 Show	TBA		

LONG RANGE PLANNING AND BY LAWS COMMITTEE

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

1980 National Show Planning Committee - Selected, 1977 General Meeting - Howard Taylor, John Harrison, James Marburger, Tom Simmons, Roger Pabian and Frank Rule. Committee selected Howard Taylor as Chairman and added Ray Lambert as Secretary.

PICK & SHOVEL STAFF: Chairman...Glen Litzenberg

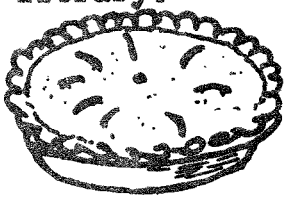
Editor	Evelyn Ulrich, 3521 S. 48th St., Lincoln NE 68506 (488-9051)		
Club News	Helena Baegl	Artwork	
Sunshine	Susan Taylor	Publisher	
Typists	Flossie Litzenberg, Marita Bigley, Linda Parks		

DEADLINE 1st of Month of Issue. Articles may be reprinted by credit and bulletin copy.

CALENDAR

General Meeting... February 23,1980, 7:30 P.M.,Trabert Hall, 2202 S. 11th St. South door-east entrance.

Program..... A slide program entitled "100 Miles of Agate in Oregon".This program is from the MWF film library.



Refreshments..... February is cherry pie month; Please bring a cherry pie or one of your choice. Extra pies will be auctioned to benefit the scholarship fund. The kitty will not be fed this month.

Ribbons..... Ribbons having the number of years of membership in L.G.M.C. were awarded to those who attended the Club's Anniversary party. If you were absent and desire to receive your ribbon, please notify Flossie Litzenberg who will make them available.

Board of Directors Meeting... will be held at the home of Larry Bigley, 6126 Hartley, at 8:00 P.M., March 6, 1980.

Welcome New Members

Margaret K. Graber, 1420 C St.,Apt. C, Lincoln, Ne. 68502, Tel. 477-4858

Walter McCoy,3250 S. 12th St.,Lincoln, Ne. 68502, Tel. 471-2851

Nancy L. Neihart,2843 S. 42nd St.,Lincoln, Ne. 68506, Tel. 489-7889

John C. and Marilyn Abel,Phil and Tammy,2829 Van Dorn, Lincoln, Ne. 68502

Change of Address

Grant and Goldie Quinn, 3420 Woodbine, Lincoln, Ne.68506, Tel. 483-5936

Edward Ridge,2507 A St. Lincoln, Ne. 68502

1980 Dates to Remember

Mar. 7-9	Kansas City, Mo.	Greater Kansas City Gem & Min. Show, K.C. Trade Mart,250 Richards Road
Mar. 21-23	Bridgeton, St. Louis-Rock Hobby Club Show, Machinists Mo.	Union Aud. 12365, St. Charles Rock Rd.
June 12-15	Lincoln, Ne.	AFMS, MWF Show, Hosted by Lincoln Gem and Mineral Club, Bob Devaney Sports Center, Ne. State Fairgrounds

Here are the dates and locations of the six Regional Shows in 1980. Note that the National Show and Convention will be held in Lincoln, Nebraska in conjunction with the Midwest Federation, June 12-15, 1980.

CALIFORNIA	EASTERN	MIDWEST AFMS SHOW	NORTHWEST	ROCKY MOUNTAIN	SOUTH CENTRAL
August 1-3, 1980 Pasadena, California	June 20-22, 1980 Charleston, West Virginia	June 12-15, 1980 Lincoln, Nebraska	August 1-3, 1980 Boise, Idaho	June 6-8, 1980 Topeka, Kansas	August 15-17, 1980 Shreveport, Louisiana

Last month ...42 adult and 4 Junior members as well as 10 visitors were present at the January general meeting of LGMC. The all-day Swap was well attended and the auction contributed well to the Scholarship fund.

After the business meeting a very informative and interesting illustrated lecture was given by George Van Dam,a University of Nebraska graduate student in the field of geology. His subject concerned the fossils of prehistoric animals found in Nebraska. Maps, charts and slides were used to explain the time periods in which they existed,their habitat,terrain in which fossils might be found and how they looked while living and in their fossilized state. Of particular interest was the discussion and photographs of the perfectly preserved fossils of prehistoric animals found in Antelope County and the theory that a catastrophic event had led to their sudden death.

The Rockhound of the Year award was presented to Frank Rule.

Roger Pabian and George Van Dam presented a show of magic, and Carl Wells, a guest from Sioux City, Iowa entertained with a charming rendition of a Rockhound song entitled,"Mud on the Tongue."

Cookies were furnished by Flossie Litzenberg, Evelyn Ulrich and Nelda Oliver.

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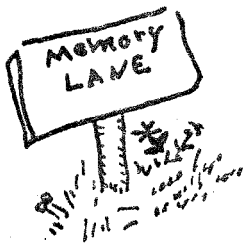

February 1970--Ten Years Ago

Meeting was held in the WOW Bldg. Frank Marsh presented a beautiful colored slide program entitled "Towns of Nebraska". Lovely scenes of interesting places in our own NEBRASKALAND! New members were Rev. and Mrs. Raymond Pfeiffer.

February 1960--Twenty Years Ago

V.A.Carveth,president,asked all members to help plan the year's activities,field trips and the Rock Show. The thought for the month was: "Even the woodpecker owes his success to the fact that he uses his head.

-From the history files of Lois and Irl Everett

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Thank you...George and Glenna McGinnis wish to thank the members for cards,letters,flowers and visits during Mac's time in the hospital both in September and January.

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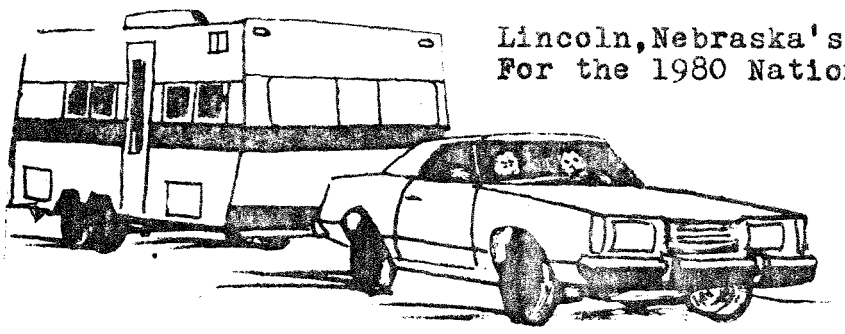

Lincoln,Nebraska's the place to go
For the 1980 National Show.

PRESIDENTS MESSAGE

The turn out for the January all day swap and regular meeting was most gratifying. The quality of materials on the silent auction was very high and I was pleased with the participation in the whole event.

Beginning this month, we will have a page dealing with the "Rock of the Month," which is Fire Agate for February. Maryilyn Smits who is heading up the education committee has compiled a short article on this beautiful gem material. The second half of the educational program is now up to the members. This involves bringing along specimens of Fire Agate to the February meeting. Bring rough and cut stones as well as information, magazine articles, lapidary tips, etc. The program cannot succeed without membership participation.

We will have three Wichita Cases available at the February meeting for the membership and guests to exhibit Fire Agate, or any other gem or mineral material of note. It is hoped that by making cases available, more of the membership will bring things to display at the monthly meetings.

The biggest hurdle facing the club in the short run is the 1980 show. All of the members should be planning their displays and planning the areas in which they would like to work---ticket takers, cleaning glass on cases, helping with set up etc. Some notable people have outright refused to co-operate with our plans for the National Show. This list includes the Ayatollah Khomeini, Mr. Brezhnev, and several others. Fortunately, we have the co-operation of many of the members of other clubs in Nebraska. Several of our club's members have visited various clubs in Nebraska and we have received a great deal of support in the form of displays, making table favors, and giving us a few minutes of their valuable meeting time to talk about the show and to pass out some of the various publicity materials we have had printed.

In addition to the badges, the bumper stickers have arrived today and these will be available to the members at the next meeting. There will also be some T-shirts available in the near future. The T-shirts will cost on the order of 4 to 5 dollars, but that is the only item for which we will make a charge.

I would advise all of the membership to consider subscribing to "Rocks and Minerals" Magazine since this is now the official publication of the Midwest Federation. There are many very good articles on areas for collecting in this magazine. The May-June issue will be the 1980 National Show Issue and it will deal with exclusively Nebraska.

In addition to the Nebraska issue of Rocks and Minerals, I have prepared feature length articles for Lapidary Journal and Gems & Minerals Magazines. It is very nice to see our state garnering so much publicity on a national level, but then we have a good state and I am happy to give it a plug any time that I can.

We will try to have our first workshop sometime in March and the first field trip some time in April. Half of the local trips will be held on Saturdays and half on Sundays. This will allow for the Saturday workers to have the opportunity for half of the trips, and the same holds true for the Sunday workers.

Be sure to attend the February meeting. We will have quite a few nice things to see and it looks as if the refreshment committee has some special plans too.

Roger Pabian,
President

From the editor's desk... We've had our first meeting of the year and are off to a good start. Everyone seemed to enjoy the all-day Swap and the general meeting which followed. This is just a sample of the fine programs and good fellowship which is in store for us in the months ahead.

We were happy to welcome our out-of-town guests. We hope they enjoyed meeting with us and that they will visit us again some time.

We hope you enjoyed your January issue of the Pick & Shovel and its new look. We hope that with the new printing process that we can share more information with you. Material such as designs, plans and illustrations as well as copies of letters, articles and Federation news which could not be reproduced by former methods can be included in future issues of the bulletin.

We hope that you, the readers, will be as pleased with it as your publication committee is, and that you will favor its continuance.

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SNOW REDRESS

"Take it off," the small voice
pleads
From deep within his wrappings;
So, as the snow melts round his
feet,
I free him of his trappings.
Off come the boots, ski pants
and coat
(I'm sure he just now smiled);
At last, the muffler and--good
grief,
It's someone else's child!
-Mary Margaret De Angelis

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From the Everett's Lapidary Shop

We are enjoying the warm climate in Arizona. See you in March.

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FEBRUARY

Natal Stone--------Amethyst
Guardian Angel-----Barchiel
Special Apostle----Andrew
His gem------------Carbuncle
Zodiacle sign------Pisces
Flower-------------Primrose

MINUTES - LINCOLN GEM & MINERAL CLUB, INC.
BOARD OF DIRECTORS JANUARY 3, 1980

The meeting was called to order by President Roger Pabian at Commercial Federal Savings & Loan, 56th & "O" Street, 8:00 P.M. on January 3, 1980.

Since the Secretary was tardy, due to family illness, the Minutes of the December meeting were read by the President. They were approved as read.

The Treasurer's report was as follows: Cash on hand, $ 20.00; First Federal Balance not available; Transmatic account, $ 747.35; and NBC Checking, $ 115.81; Interest, $ 31.22.

Income, $ 7,224.19 (includes transfers from First Federal). Balance January 1, 1979 was $ 746.78. Checks written for $ 7,855.16.

Larry Bigley made motion, seconded by Virginia Green, Treasurer's report be accepted. Motion carried.

The Treasurer reported the Certificates of Deposits are each valued at $ 1,353.24; with $ 293.34 interest on the 3 for the year. Total value now, $ 4,059.72. Under present plan, 7.75% was the best interest. Beginning Jan. 1, 1980, they have a new plan called Treasurer's Note; at 10.4% for 30 mo. investment.

Larry Bigley suggested further investigation into transfer of Certificates for a shorter period of time. After some discussion, Larry made motion that we re-invest the money at the higher interest rate. This was seconded by Virginia Green. Motion carried.

Phyllis Parks had already taken care of signature cards at First Federal..She had the signature card from NBC for the President to sign. No checks could be written until the card was signed and returned to the Bank.

The following bills were presented. $ 41.14 Page Trophy for Plaque & engraving; $ 9.36 Roger Pabian for carbon ribbon for Club Typewriters; $ 10.00 Susan Taylor for cards & postage; $ 3.31 Howard Taylor for registered letter to Taiwan-Club Badges.

Motion was made by Virginia Green, seconded by Larry Bigley the bills be paid.

Discussion was held as to who could receive monies for membership dues. Roger read the By-Laws concerning this matter. It was decided the Membership Chairman could have a receipt book to write receipts for dues paid in advance.

Jim Marburger announced he would donate the fluorescent light and map for "Nebraska Gems on Location". Thanks Jim.

Flossie Litzenberg also stated she would like to retake some photos from the Christmas party.

The new President, Roger Pabian, thanked both the '79 & '80 Board members for attending the meeting, and also appointed committee chairpersons in attendance. Then he introduced each member. The appointees are listed on the inside front cover of the Pick & Shovel.

Virginia Green made the motion we accept the appointments. This was seconded by Marita Bigley. Motion carried.

These positions and related duties were explained by the President.

John C. & Marilyn Abel - Applied for family membership - Sponsor, Roger Pabian.

Motion to accept by Phyllis Parks; Second, Virginia Green. Motion carried.

The passing of Virg Carveth recently, meant the loss of a past President. It was decided to give $ 10.00 to the Heart Fund in his memory. It was noted also that we give the rank & file the opportunity

LGMC Board Minutes - January 3, 1980 - continued

to give Memorial also the the fund of their choice. Larry Bigley suggested they consider the Bryan Mobil Heart Team.

The By-Laws require the Club set up a Budget. Motion was made by Phyllis Parks, budget construction be moved to February Board meeting in order to know what monies are available. Seconded by Virginia Green.

Motion was made by Phyllis Parks each member who wishes Gem Palette must pay his own subscription of $ 1.00. Club will terminate free subscriptions. Seconded by Larry Bigley. Larry amended it be noted in Pick & Shovel. Seconded by Marita Bigley. Motion carried.

Motion was made by Virginia Green to pay the $ 10.00 dues to Nebr. Academy of Sciences to maintain membership. Seconded by Frank Rule.

The President suggested the Club allocate a sum to purchase a small portable Bulletin Board to post Club materials. Larry Bigley offered to donate a piece of beaver board for this purpose. Thanks, Larry.

Virginia Green suggested checking into a CPR (Cardio-Pulmonary Resuscitation) class for Club members. Jim Taylor was appointed by the President to check into this possibility and report at the General meeting.

Since we no longer have a Publisher for the Pick & Shovel, some discussion followed as to what to do. The President checked into the possibility of publishing it through Quik Copy and felt the price was reasonable. Further discussion followed.

Motion was made by Phyllis Parks and seconded by Virginia Green we go with Quik Copy for January Pick & Shovel. Motion carried. Opposed - Larry Bigley.

Further discussion at February meeting.

Roger announced the General meeting January 26 would also be a MID-WINTER SWAP to begin at noon, with a Silent Auction and Magic Show.

There being no further business, the meeting was adjourned. The next Board Meeting will be February 7, 1980, at 8:00 P.M. at Commercial Federal Savings, 56th and "O" Street.

Respectfully submitted,

Vera Lyman

Vera Lyman, Secretary

Stuffing Party

I do want to thank the following Club Members who came out Sunday, January 27th, to help get our pre-registration packaged up and in the mail. The turn-out was very good.

Howard

1. Roger Pabian
2. Jim Marburger
3. Frank and Tom Rule
4. Taylors-4
5. Bruce and Fern Simon
6. Ed and Vivian Johnson
7. Edward Ridge
8. Helena Baegl
9. Florence Boring
10. Julius and Myrtle Young
11. Phyllis Parks
12. Nelda Oliver
13. Barbara Stock

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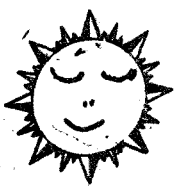
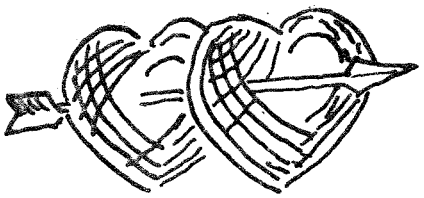
Greetings from the Sunshine Corner:



Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you,and the storms their energy,while cares will drop away from you like the leaves of autumn.

This past month get-well cards were sent to George "Mac" McGinnis and Glenn Lyman. Both are home recouperating fantastically.

Suze Sunshine



HIGHLIGHTS from HELENA

Rev. Pfeiffer reports recovery from a bout with the Flu. He also had an eye infection, the first medication to which he was allergic, but now is almost healed. Mrs. Pfeiffer's new knee is working well, and she gets around beautifully. They plan for 2 Wichita cases at the '80 June show.

Marj. Heedick must be having a great trip "down under" (Australia and New Zealand) as I haven't heard even by postcard from her a-tall. Just for that, she'll have to give us a detailed story on her tour when she returns early in February.

Talked with Ray Sincebaugh. Some may not know that an auto accident gave him a broken neck--2nd vertabra, and he was in a Halo cast** for 7 weeks. When he got home from hospital, it was Dorothy's turn to go for the badly bruised ankle she got in the same accident, which needed a skin graft. Ray batched while D. was in hospital, but I gathered he didn't relish his own cooking! They both have a long way yet to go, but are optimistic, and very happy that their younger son is moving back to Lincoln.

Roger Pabian did some might fancy prestigitatin' at the Saturday (1/26) meeting- intrigued the small fry, as well as the big fry. Thanks, Roger.

The Club's 25th anniversary dinner at Assembly of God church was lovely--altho only 35 attended. The church women served a delicious chicken-rice dinner, and our anniversary white cake baked by Vera Lyman was beautiful and tasty. A roll call was made and each member was given a blue ribbon showing the number of years he/she was a member. Frances Tracy was the only charter member present, and I believe your reporter was the next oldest (in more ways than one!) in membership years,(24-plus years), as I joined about 2 months after club organized. We missed all those lucky folks in Arizona and elsewhere down south.

Congratulations to Flossie & Glen Litzenberg, who received a telephone call from Honolulu at 4:00 P.M. on Monday, Jan. 28th, with news that they are now great grandparents to a baby girl born just a few minutes before--6 lbs. 12 oz. Gives Flossie & Glen an excuse for another trip to Hawaii.

** For those who don't know, a Halo cast is a cold steel band placed around the patient's head, secured by 4 screws going into the skull, with 2 steel rods running from the front rib cage up to the head band, which makes one completely immobile. I have a friend who wore such a Halo for weeks after her spinal/vertebrae surgery. Makes one look like an outer-space person.

Until next month- I could use items- please give me any personal news that might be of interest to the club membership. We all care.

25th ANNIVERSARY PARTY

The Lincoln Gem and Mineral Club celebrated its 25th Anniversary with a party at the First Assembly of God Church, January 15. Thirty-one members and two guests enjoyed a delicious dinner, at a very reasonable price. Half a chicken breast over well seasoned rice, peas, orange Jello with cottage cheese in it, relish dishes at each table, rolls and butter, and all the tea or coffee we wanted. The dessert was a generous slice of our Anniversary cake with vanilla ice cream served by the ladies of the church. Marie and Susan Taylor made blue and gold mints to put in the nut cups and Flossie furnished some macadamia nuts. Helena Baegl gave the invocation.

Vera Lyman made us a beautiful 25th Anniversary cake, frosted in white with blue stars and silver beads. We put the Club's blue and gold table cloth on a table near the door and set the cake in the middle with an arrangement of white chrysanthemums on each side of the cake. That way everyone got to view the cake before it was taken into the kitchen and cut up for dessert.

A table was set up with the Club's scrap books on it for viewing.

After dinner Roger read a letter of greetings from Irl Everett who is traveling in the south until spring. He is a charter member. Howard read several letters which he had received from other Clubs sending their best wishes for our Anniversary..

Then Phyllis Parks read the names of the members and the length of time they had belonged to the Club. She began with the newest members. When she came to the name of someone present; He was asked to come forward and Marie Wells pinned a blue ribbon on him with the number of years he had been a member in the Club in gold letters.. Members were then asked to tell about themselves, their work, their family and anything else they might think the members would be interested in. It made a very enjoyable visit with each member.

A 25 year pin was given to Frances Tracy by Roger Pabian because she was a charter member.

Members had been asked to bring slides to share that would interest the group. Slides were shown from the collections of: Marie Wells, Florence Boring, Flossie Litzenberg, Phyllis Parks and Albert Olson. As each member's slides were shown they talked about them. Albert's slides of his Norway trip was a beautiful climax to our program.

-Flossie Litzenberg, Chairman

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Ask for your blue ribbon at the February meeting.

F.L.

Dinosaur Graveyard Found In Ziebach County, S.D.

Hill City, S.D. (AP)... Private collectors are excavating a field in Ziebach County which is littered with dinosaur bones.

"This lady in Ziebach county suspected it was bones exposed on her property, "says Pete Larson,27, of the Black Hills Institute Research Inc. " She made some inquiries and a tip came to us.

" So we went up and found a giant dinosaur graveyard about ½ mile by ¼ mile so far," he says. "There are thousands of bones."

Larson says most of the bones belong to a single species of dinosaur, the anatosaurus, a duck-billed marsh dweller which stood up to 12 feet tall and ate vegetation.

"We've also found the teeth and bones of carnivorous dinosaurs called gorgosaurus which are related to the tyrannosaurus," he adds. "And we also found the skull of a horned triceratops, crocodile bones, bird bones, part of fish gar and turtle parts."

Larson says the site is located in the Hell Creek Formation in the late Cretaceous Age.

"We believe the dinosaurs were washed into an ancient marsh surrounded by a forest of sequoia trees because we've found cones and leaves of sequoia, " he says. "This inland sea may have stretched from the Arctic Ocean to the Gulf of Mexico which was drying up."

Larson says the land owner, now 82, gave them permission to begin excavation last summer.

"Right now, it looks like we'll have to spend at least one more season digging to put together one complete specimen," he says. "And it's not an easy thing to prepare-- it takes a lot of time and patience.

"So we don't think our first dinosaur will be ready until about March 1981, " he says.

Larson says the institute plans to sell the completed skeletons to private museums in Europe and America.

- Mitchell Daily Republic via Korn Krib News, January 1980

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Staying Home

I was planning a touring vacation
Before many more months should
pass,
But before I could even get started
Oh,Shah! Iran out of gas!

-S. Omar Barker via The Rockpicker

Rock of the Month - FIRE AGATE

Fire agate may have been discovered as early as the late 1930's in southeastern Arizona, but the first documented find was in 1945-46 in southeastern California near the Arizona border at Wiley well (Coon Hollow). The stone is indigenous to the Sonoran Desert of Arizona, California, and northern Mexico and to the Central Basin of Mexico. In the United States, five claim groups are operating the Deer Creek fire agate beds, located on the northern slopes of the Galiuros Mountains, 40 miles west of Safford, Arizona, at an elevation of 5500 feet. These fields are not open to the public and are snowbound in winter. Currently the One Track Mine is the most active of these open pit mines.

The first step in the mining endeavor is to remove topsoil with earthmoving equipment to expose the country rock which consists of flows of basalt and rhyolite and contains the fire agate. Five-foot deep holes are then drilled and dynamite in small amounts is used to loosen the fine-grained igneous rock. The broken down material is then carefully inspected by hand. The depth of the Deer Creek mines can go up to 40 feet. Primary deposits of fire agate are found in fissures and veins of rhyolite and more frequently in the pockets and cavities. Secondary deposits are found in the topsoil where agates have"weathered out" of their original locations and the weather effects on the iron oxides yields material that can come apart along its layers.

Sweaney (1979) presents a possible scenario of the formation of the Deer Creek fire agates. "Hot waters saturated with colloidal silica and iron oxide invaded cavities and spaces in the country rock and began to cool. Chalcedony with iron oxide imparting brown color began to grow on any surface available. These solutions had to be highly saturated for chalcedony to form, and growth could have been rather rapid. As the solutions lost silica through growth, too much iron oxide remained in suspension, so periodic adjustments restabilized the solutions. When conditions were right, iron oxide precipitated onto the growth surface of the chalcedony, creating an extremely thin layer of very tiny regularly arranged crystals. Once restabilized, the solution continued the growth of chalcedony. The cycle repeated, creating regularly sediments of iron oxide, known as Schiller layers, within the chalcedony. These layers cause the brilliant interference color we see as "fire". The solutions were probably replenished periodically with silica, but at some point, the source of iron ran out. The chalcedony continued to grow, but was now colorless, (p. 134)." The shapes of the fire agates include mammillary forms and iridescent spikes called "sagenite".

Color is naturally one of the major criteria for selecting a fire agate. Sweaney suggests looking for "pure spectral hues which stand out from the brown body color (p. 137)." He considers blue, yellow, and red more preferable than the violet, green, and orange colors with metallic bronzy appearances as poor. Other characteristics to look for include the number of distinctly different colors ("very best stones radiate color which can be seen from thirty or forty feet away, p.137"),

FIRE AGATE - continued

and amount of color coverage over the face of the stones ("best" have 90% or more and "fine" have 70-89% coverage, p. 139). Any unique color pattern such as one found giving a spider web effect would add to the value of the coloring. Mexican fire agates require inspection of their orientation of cut as how well the color shows is dependent upon this. However, the Deer Creek agates do not need this directioning of cut.

Positive assets for a stone are polished backs with good fire and unusually baroque forms such as one fashioned of bright green agate that elicit animal- like images to the observer. Negative characteristics include cutting flaws and inherent flaws in the stone, e.g., pits, cracks, matrix on the stone face. The size of the stones from Deer Creek range mainly from 1 to 20 carats.

The fire agate is a cryptocrystalline quartz with a hardness of about 7 on the Mohs scale. It is not brittle. Selecting rough material is a gamble and the buyer cannot always identify the value of even wetmaterial. Mexican rough can be sold only in Mexico itself, unless that law has been changed since 1973.

Sweaney believes that lapidarists find agate "one"of the most difficult gems to cut. The secret is in understanding how the layered structure and botryoidal form influence the cutting technique. We have seen how extremely thin layers of iridescent iron oxide are deposited onto the growing surface of the chalcedony bubbles, only to be covered, in turn, by a layer of chalcedony. The cutting process is essentially a reversal of this growth pattern. After careful study to determine the structure, the lapidary carefully grinds away all the excess chalcedony, leaving only a thin clear window which exposes, yet protects, the fire layer. By following the natural contour of the material, by "peeling the onion," the cutter can create a gem with fire glistening from the entire surface (p. 134-135)." This cutting procedure known as "contour cutting" used by the One Track mining group is described in more detail on pages 135-136 of Sweaney's article.

One special point about carving fire agates is that forcing rough material into a specific pre-selected shape may cause the fire layer to be lost. Mexican material is flatter with more layers than Deer Creek agates and thus may lend itself to more traditional symmetrical forms. The quality of the cutting is an important factor in the pricing of stones. One of the greatest difficulties in cutting the Mexican agates is orientation of the stone so the color shows most intensely and dead directions are avoided. As noted above this is not a problem with Deer Creek agates.

Mallory (1974) recommends a variation on the usual cutting: a baroque faceted stone of Mexican fire agate with a large table, only narrow mains, and corners cut as desired (p. 1530). He also suggests a remedy for any defect or small open space in the stone; just fill the spot with epoxy and continue when dried (p. 1530).

The popularity of the fire agate is increasing as the stone becomes better known and understood. Simultaneously prices are rising also. Currently Sweaney reports that prices are moving toward per carat assessments rather than per stone. Top quality agates sell for $10-25 per carat wholesale, "good to better" quality for $2-10 per carat, and poorer stones for $1-10 per specimen (p. 140).

FIRE AGATE - continued

I highly recommend Sweaney's article to you especially for its good list of references on deposits, formation, color, grading, cutting, polishing, and research on fire agates and its excellent color photographs showing brilliant green-only and red-only stones as well as outstanding specimens of multi-colored gems. It will be on display at the February Club meeting along with the beautiful fire agate specimens of you Club members. Primary Reference: Sweaney, James L. "Fire Agates of Deer Creek". Gems and Gemology, 1979 (Spring), pp. 130-141.
Secondary Reference: Mallory, L. D. "The Fire Agate Mines of Calvillo". Lapidary Journal, 1974 (January), p. 1500f.

Marilyn R. Smits
Education Chairman

****

FIRE AGATE

So-called "fire agate" is actually a chalcedony with a layer of iridescent limonite (a type of iron oxide) which is trapped between layers of chalcedony. The layer is so thin that it is sometimes less in thickness than a breath upon a window pane. The deposition of limonite is such that a dense spot is formed and this thins out towards the edges. This dense spot is where the best colors are usually dominant. The form of "fire agate" is almost always botryoidal. Fire agate should be worked with a great deal of caution:

1. First study the stone before sawing or grinding.
2. Grind slowly on 100 grit wheel wetting the stone often and examining to see that "fire" is still there.
3. Do the same on finer wheel until satisfied that "fire" is coming to the surface.
4. Start sanding, checking stone periodically to see that you have not sanded the "fire" away. Keep wetting all the time, as the stone is heat sensitive..
5. When satisfied that you have the "fire" at the top of the cabochon, finish on leather buff with tin oxide.

- Glacial Drifter September '79.

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People who won't get involved with their club are like the shipwrecked men in a lifeboat. From their end of the boat they watched as the people at the other end bailed frantically to keep afloat. One said to the other,"Thank heavens the hole is not on our end of the boat!!!"

- The Geode

HOW TO CUT A DIAMOND

By David A. Fryxell

PART II

Sawing and cleaving are as different as diamonds and rhinestones. Sawing is a slow, laborious process using a high-speed blade of paper-thin phosphor-bronze, edged with diamond dust; it may take a full day just to saw through a one-carat stone. Cleaving--splitting a diamond along that single line where the atoms cling together less persistently than in any other direction--is a single blow, sudden and irreversible.

Where exactly that blow will fall is the responsibility of the planner, who must also decide whether a stone should be sawed or cleaved, along what lines it should be cut, or how it should be shaped and faceted afterward. The decision made--sometimes after months of study--he marks the cutting line on the diamond in India ink.

A diamond marked for cleaving is set into a shellac mixture on a little cup-like chopping block called a "dop." A second, pointed diamond, or "sharp" is used to cut a groove along the cleaving line--a painstaking process that makes a sound like fingernails scraping on a blackboard. The procedure is the same as Joseph Asscher used in cutting the Cullinan, though the final fainting isn't required. A cleaving knife is set into the groove and a single tap with a steel rod or a mallet, traditionally of palm wood, splits the diamond along the grain. (Diamond cutters tend to wear aprons so they can catch airborne stray gems in their laps. Losing a cut diamond down the sink, say, is considered poor form.)

Once the gem is cleaved, it's whittled into shape by holding it against yet another diamond on a high-speed lathe (called "girdling"). Next it goes to the "lapper" or "blocker" who makes the eight main facets on both top and bottom, the top ("table") facet itself and the tiny "cutlet" point on the base (except in Antwerp, where the obstinate Belgians omit the cutlet). Finally, the "brilliianteer" puts on the smaller facets--24 on top and 16 on the bottom, for a magic total of 58. A mathematician named Marcel Tolkowsky saw the light, literally, and devised the proportions of this "ideal cut" in 1919; it gives a diamond the maximum brilliancy consistent with a high degree of what's known to cognoscenti as "fire."

But it's the cleaving that's the stuff of high drama and legend. Diamond-cutters tell the stories of the greats of their art in hushed, reverent tones, like football benchwarmers remembering Red Grange. Great cleavers must make their mark on great stones--like the Jonker Diamond, found by Jacobus Jonker in the dirt of his South African farm in 1934. The 726-carat stone was entrusted to master cutter Lazare Kaplan, who cleaved it into 12 gems. Though some of the resultant stones were entirely concealed within the body of the rough diamond, Kaplan correctly predicted within 1% accuracy the dimensions and shapes of even these hidden gems.

That's the key to the cutter's art, explains Kaplan's son George, a New York diamond-cutter: "The essential skill is to be able to visualize three-dimensional shapes before you have them." It's a combination of hand, eye, and mind, though the diagnosis is more important than the dexterity. One is faced with a three-dimensional space and a limited number of possible directions to cleave; the problem is to divide each stone into shapes with maximum clarity while holding as close to the original form of the rough diamond as possible. "The really interesting thing," Kaplan says, "is that every diamond is an individual. It's a little like dealing with people: you have to treat each one as an individual."

Part III and final, next month.

From TWA'S AMBASSADOR MAGAZINE
Submitted by Helena Baegl

GOLD---(aurum Au)
-by J.D. Young

"Thar's gold in them thar hills!"
How sweet that remark is, but the question is (1) What hills, (2) What is it good for, (3) Why?

Let us examine, in reverse order, the 3 parts in the above question, and then inject a few facts and anecdotes for good measure:
#3. Why? Not only is gold a very useful metal, due to unique physical and chemical qualities,but currently it is very costly. Physically it is most ductile and malleable; it may be drawn out into unbelievably fine threads or hammered into tissue-thin sheets. It is an excellent conductor of electricity.

Years ago we could buy 25 sheets of pure gold, 3 3/8 inches square, for a mere $1.65, from scientific supply firms. We used it for gold leaf electroscopes. High school physics students enjoyed folding a sheet into as many folds as possible and then measuring the total thickness of the whole sheet. Chemistry buffs could dissolve it in aqua regia (royal water), 1 part nitric acid to 3 parts hydrochloric acid. If lucky, they could turn the "royal metal" into crystals.

Other chemical reagents affect gold very little because it is chemically inactive; it does not rust or corrode. Such a "noble" metal occurs "free" in nature, tellurides being a notable exception. Primitive persons needed very little scientific knowledge or equipment to make use of it.

As I am writing this,January 29, Paul Harvey in his noon radio news mentioned that several capitol domes in the United States are covered with gold. Nebraska has one here in Lincoln. He said it would be very difficult to remove. So gold-hijackers better not try.

#2 What is it good for?
From ancient to modern times gold has been highly prized and used extensively for decorations, rituals, coinage,dentistry, and jewelry. Recent usage has grown to include many new "practical needs", as well as financial standards, some technical. When alloyed with "baser" metals it becomes much harder than when pure. Pure gold is 24 carat.

#1. What hills?
In lands throughout the world, usually mountainous, and in the waters of the oceans. It is obtainable in rather limited amount and mostly by difficult means. The glorious days of easy-finding seem to be over in most regions, but there are still possibilities in remote areas. Some places of early gold-rush prosperity (and heart-break as well) are now being re-opened with some success, using modern technology.

When gold was about $35.00 per troy ounce,someone estimated a cubic foot of ocean water contains approximately 5 cents value, but not worth the effort to extract it. It seems possible that modern methods may change that relationship.

GOLD---(aurum Au) continued

Precious metals usually are weighed in the troy system,which may not be understood by everyone. A troy ounce is equal to 480 grains. The common avoirdupois ounce equals 437.5 grains. There are 12 troy ounces in a troy pound instead of 16 ounces as in the common pound. Your little pocket calculator should reveal the troy ounce equals nearly 1.1 times a common ounce. Do not confuse the grain with the metric gram, the latter being much larger.

In the 1930's depression years one of my physics students wanted to join the ranks of amateur gold-buyers and traders, but lacked money to buy necessary troy weights and weighing scale. I helped him make a crude set of weights, using scraps of copper and brass and grinding them to exactness, first computing their relative values by the metric system. We made a beam balance by supporting two watch case backs from opposite ends of a rod balanced on a sharp fulcrum. It served his need. He eventually operated a jewelry store on the N.E. corner of 13th and "O" streets in Lincoln where the J.C. Penney store later was built.

A feature story in the February 1980 Smithsonian Institution magazine is entitled "A new gold rush draws prospectors to Mother Lode",pages 104-114. Myrtle and I found it very interesting because we have visited relatives in the area east of Sacramento, California, and have seen the famous spot of Sutter's Mill of '49's lore, where it all seems to have begun. I know some readers must have been there,too. To my knowledge I had no relatives among the '49ers, but my mother was a '59er when she was about a year old. With her parents, two aunts and their husbands they joined the "Pike's Peak or Bust" gold rush. They came from the French Icarian colony at Nauvoo, Illinois, and "busted" at St. Joseph, Missouri. Probably best for all.

Please permit a few quotes relating to gold seekers and the American Indian reaction, taken from the very meaningful writings of our late L.G.M.C. Honorary Member, Poet John G. Neihardt:

From Indian Tales and Others-Macmillan, 1926," The Parable of the Sack",p 136

'A MAN'S chief business in this world...
is to break his heart under some load.
Only the worthless ones fail to do it.'

From Life's Lure- Mitchell-Kennerley,1914, p. 16

'Madness is in the air - gold-madness.
Blood-madness in a mob is terrible enough,
God knows; but in blood-madness there is
bound to be a fraternigation of the human
atoms into one moving mass. It is not so
with the madness for gold. It disintegrates.
The mass no longer moves as a whole. Blood
brings about the human compound. Gold
makes only a human mixture.'

GOLD---(aurum Au) continued

P.53 The quartz mine is the rich man's mine.
Indeed, a very poor man, his arms capable
of swinging pick and shovel, may discover
the gold-bearing rock, but he cannot de-
velop his find without capital.

P.54 Buried treasure is irresistably fascinating.

From The Twilight Of the Sioux, Vol. 2, A Cycle of the West,
"The Song of the Indian Wars", University of Nebraska Press,1971

P.2 An epidemic rumor murmured now.
Men leaned upon the handles of the plow
To hear and dream.....
The valley roads ran wagons, and the hills
Through lane and by-way fed with trickling rills
The man-stream mighty with a mystic thaw.

P.3 But there were those-and they were also men-
Who saw the end of sacred things and dear
In all this wild beginning.....

P.108 .....Sell the family cow!
Go pawn the homestead! Life was knocking now!
There might not be another knock.
Bring forth the hoarding of the hidden sock,
Poor coppers from the dear dead eyes of Joy!
Go seek the god that weighs the soul by troy;
Be saved, and let the devil take the rest!
The West-the golden West-the siren West-
Behold the rainbows end among the peaks!
For in the creeks-in all the crystal creeks-
The blessed creeks-!.....

Today's gold rush may be less romantic, but possibly just as frantic.
J.D.Y.

P.S. With current prices and more efficient methods the next big rush may be the ocean.
J.D.Y.

Editor's note...We regret that a typographical error occured in Mr. Young's article,"Happy New Year-(Yes,but what kind?),p.9 Jan. issue of the Pick & Shovel. The sentence should have read,"February gets 29 days again this year, instead of the usual 28, to compensate for the earth's 365¼ day revolution period about the sun."

POTPOURRI

Ten Unusual Ways to Use Salt

1. Eggs with cracked shells can be cooked without their contents oozing out if a teaspoon of salt is added to each pint of water.

2. Nutmeats will come out of the shell whole if the nuts are soaked over night in salt water.

3. Cream will whip faster if a pinch of salt is added to the cream.

4. When cleaning fish, rub salt on your hands first to keep the fish from slipping.

5. Food will cook faster in a double boiler by adding salt in the bottom container.

6. Add a few dashes of salt to the water of cut flowers. They will last longer.

7. Fill a nail hole in plaster walls by making a putty of equal parts salt and starch mixed with enough water to make a stiff dough. You can paint over it.

8. Help clean the soot from your fireplace chimney by throwing a handful of salt on the blazing fire.

9. To brush your teeth, use a little salt on the tooth brush or use a mixture of salt and baking soda.

10. For quick action for relief from bee stings, mix salt, soda and vinegar and apply to stings.

-Michigan Lapidary Society via The Glacial Drifter, 1/80

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An empty vessel makes the loudest noise.
Eastern Proverb via American River Currents, 1/80

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Silversmiths: Draw your jeweler's saw blade through an old candle; it coats the blade and you can saw faster. Swipe a piece of chalk over your jeweler's files--it keeps metal slivers from clogging the file and you can blow them out.

-Rock Reader via Flint Rock & Gem Club Newsletter
Feb. 1980

The Association of Earth Science Clubs of Greater Kansas City

January 1980

Dear Club Members,

The Association of Earth Science Clubs of Greater Kansas City invites you and your club members to attend our Gem and Mineral Show, being held March 7, 8th, and 9th, 1980. It will be at the Trade Mart building of the old Municipal Airport, with free parking.

Our special displays will be four pieces of award winning jewelry, one being a three dimensional pendant containing diamonds and aquamarines. Another special display is from Carnegie Institute, which is an aquamarine pendant and an uncut crystal of 1800 carets. The dealers will also have special exhibits.

There will be a swap area using "swap dollars". Working demonstrations will be done by local members and others from surrounding areas.

Exhibiting will be non-competitive and competitive, and "come and go" cases will be available.

Entry blanks and general information plus discount coupons are enclosed.

Jr. competitive entries are welcome for their divisions as provided for in the AFMS Uniform rule book, Fourth edition, 1977. There is a new rule book being published this year, but because our show is only 2 mo. away, we will use the regular one this time. Please note entries should be returned by Feb. 15th.

We shall hope to see you in March, and don't forget your cameras.

Sincerely,

Glenn & Sue Nicol

Competitive Exhibits
Chairmen

4319 E. 105th St.
Kansas City, Mo.
64137

JUNIOR PAGE

Hi Juniors:

Too early yet for field trips. Thought you might like to go on an agate hunt right at home. See how many agates you can find in the agate field below. Our thanks to "Voice" ElPaso via Gem Drops. Happy Valentine's Day.

Mrs. Ulrich

S D E N D R I T I C M M O T R
T X L R O I R E P U S E K A L
A E R M S D A E H Y R D O L S
B A E L A L L E T I R R U T I
R N A P L U M E F A I R B U R
A A S T E M O N N T R O S E I
Z T I X Z E C A L Y Z A R C B
L N O I T A C I F I T R O F O
I M O S X T I X M E A P U F S
A T R E P R L K H Y D G O O W
N U M A B A N D E D O M U L A
O K X U N I K S E K A N S N N
E L R S W E E T W A T E R I A
I N D R O M O S S R P Q Z D T

Clues: Banded, Botswana, Brazilian, Crazylace, Dendritic, Dryhead, Fairburn, Fire, Fortification, Iris, Laguna, Lake Superior, Mexican, Montana, Moss, Plume, Snakeskin, Sweetwater, Teepee Canypn, Turritella.

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Sedimentary Rocks...Sedimentary rocks are made of sediments which have hardened into rock. These sediments may be deposited by wind, water or ice-or they may be organic deposits or chemically precipitated materials.

Sand, clay and mud are being poured constantly into lakes and oceans. This material called sediment settles to the bottom. After many years it becomes pressed together, or consolidated into rock.

Probably the most common sedimentary rocks are shale, sandstone, limestone, dolomite and conglomerate. Limestone and dolomite are abundant because calcium and magnesium are the most abundant soluable products of weathering. Chalk is a form of limestone. It is made of the shells of tiny animals that lived millions of years ago. Sandstone is formed of grains of sand cemented together. Shale is formed from beds of mud or clay which have been pressed and cemented together. Salt is composed of the elements of sodium and chlorine which were in the magma. Under certain conditions they combined. Being easily dissolved in water they found their way to the ocean. Gypsum, like salt, has been deposited from the shallow waters of ancient seas or lagoons. Gypsum is used in making fertilizer and Plaster of Paris. Particularly fine deposits called alabaster are white and are used for making decorative articles.

Midwest Federations NEWSLETTER

Published montly except July and August as a service to member clubs. All news, articles, subscription orders and requests for information should be sent to the Editor, Haydon Peterson, Parrot Printing, 2125 Forest Ave., Des Moines, Iowa 50311

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February 1980 - Issue No 201

MIDWEST COMMITTEES ARE READY TO HELP YOU

By Bernice McCloskey, MWF President

Help is just a postage stamp away. We have some real treasures in the MWF permanent committees waiting to be discovered by those who think they're up the proverbial creek!

To highlight just one, our Mineralogy Committee is chaired by Paul Clifford. Paul is also Associate Curator of Mineralogy for the Cleveland Museum of Natural History. This committee will help clubs establish study groups, help members learn to identify minerals, help members learn the professional way to collect and catalog minerals, clean and display minerals, etc. If you or your club need help in mineralogy, beyond that which is available locally, contact Paul Clifford, Wade Oval, University Circle, Cleveland, OH 44106 for advice and direction.

Archaeology, Geology, Lapidary, Paleontology... there are committees to cover almost anything you want to know. Get in touch with your State Director or Assistant, or the particular committee chairman for information. Names and addresses are in the MWF Directory.

As you know, each club receives two free copies of the Midwest Directory each year. In addition, we hope members will order their own copies. This is an indispensable source of information and a super bargain.

Congratulations to all new club presidents. As one of your first duties, would you be sure your club has returned the completed information sheet and dues to Secretary Jean Reynolds.

HAS YOUR CLUB FILLED OUT ALL AMERICAN AWARDS FORM?

Every Midwest club should be proud to take part in the All American competition of AFMS, which picks the outstanding clubs of Midwest and the AFMS for the past club year. Your club has a form to fill out, and should have a chairman to fill it out and mail it in. Deadline is March 31.

Your club could pick up a trophy or two at the National Gem Show in Lincoln, Nebraska next June. You know you have a good club, a very special organization of enthusiastic, dedicated people. We want to hear about it too.

Help your chairman fill out that important All American-Merit Award form and mail it to me soon. Your club will be honored for its work with the community, for its cooperation with other clubs, for what it does for its members, and for its contributions to earth science and the lapidary arts.

This excellent program of honoring prestigious clubs, originated in the Midwest, and the Midwest has been a constant leader. If you can't find your entry form please write me. The Judges will be announced soon. *-Midwest All American Regional Chairman, June Zeitner, (winter address) 2205 S. Hwy 281, Edinburg, TX 78539.*

To all of you, thanks for the club bulletins, the invitations, cards and letters. I appreciate every one, and it reminds me again that rockhounds are really special people!

I-80 ALL THE WAY TO LINCOLN, NEBRASKA IN '80 FOR THE NATIONAL/MIDWEST SHOW

MINERAL NAMED FOR MacFALL

Fewer than 3,000 mineral species are known of which perhaps about 1,100 bear the names of persons. Minerals are usually named by the scientist who discovers them, and the name must be approved by an international commission and by publication of the data in a recognized magazine. All this introduction leads up to the fact that a mineral has recently been named for an amateur, a former editor of this American Federation Newsletter, Russell P. MacFall.

Macfallite, identified by Dr. Paul B. Moore of the University of Chicago, as a new species, is one of several calcium manganese silicates found in basalt in Keweenaw county, Mich., the famous Michigan Copper Country. It is found as reddish brown needles often in the form of a radiating rosette. MacFall has been a collector of minerals in the Michigan copper mines for many years and is making a detailed study of them.

(MacFall is the author of the popular "Books" column appearing in the AFMS monthly Newsletter. He is also a Past President of our Midwest Federation. He formerly lived in Evanston, Ill. before moving recently to Coronado, California and was an associate editor of the Chicago Tribune before his retirement.)

OUR FOREIGN MINERAL DEPENDENCE

By June Zeitner

Our highest rate of dependence for industrial minerals from other nations is in diamond. We import 100% of the natural diamond we use. We also import 98% of our manganese needs, 97% of our required cobalt, 93% of the bauxite, and 92% of the chrome. Our platinum imports have risen to 91% and asbestos to 84%. We import 81% of our tin consumption, 77% of the nickel and 62% of the zinc. Other countries supply us with 61% of our potash need, 57% of our mercury and 54% of our gold supply. Tungsten stands at 50%. A few minerals take less than half of our annual consumption from foreign sources. Among them are silver, gypsum, iron and salt. Most of the coal we use is our own.

Most of our limestone, dimension stone, granite, sand and gravel is produced in this country and used locally, as far as possible.

In this country 90% of the mineral production is on the so-called "public lands" of the western states. Less than .02% of our public lands has been used for mining. Some of our most promising sites for mineral development have been withdrawn from the use of the nation by the "wilderness" programs.

In 1950 we were dependent on others for only four of our vital minerals. Now that dependency has almost tripled.

We have in our nation vast reserves of coal, uranium, oil, iron, manganese, copper, lead, zinc, mica, feldspar, beryl, bauxite, fluorite, asbestos, and many other minerals. Many of our huge deposits in Alaska are untapped.

In seven years the cost of our foreign minerals has rise from 10 billion to 64 billion dollars. Gold, silver, diamond, platinum and oil are rising in price at an alarming rate.

A new policy on natural resources is now a national priority.

NATIONAL SHOW PLANS TAKING SHAPE

Roger Pabian, President of the Lincoln Gem and Mineral Society and Publicity Director of the combined AFMS-Midwest Federation show, June 12-15, reports plans are taking shape.

Dealer spaces are rapidly filling up, competitive and regular displays are being scheduled, speakers, programs and other aspects of the show are being set.

Complete information will be published in this Newsletter in coming months.

THE AMERICAN FEDERATION
NEWSLETTER
SERVING THE SIX REGIONAL FEDERATIONS MONTHLY

FEBRUARY 1980

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FEBRUARY

Flower: Violet

Birthstone: Amethyst

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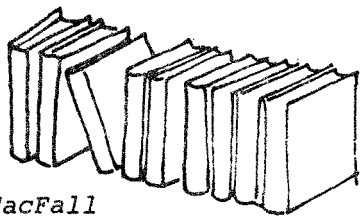
BOOKS



By Russell P. MacFall
P.O. Box 309, Coronado, CA 92118

Two hundred years ago, mineralogy took its first faltering steps as a science with publication in 1784 of Rene Just Hauy's "Essay on the Structure of Crystals" and several other books by Europeans. Americans in the new republic, especially in Philadelphia, seized upon the new science as the key to opening up the natural resources of the continent. Slowly, through correspondence and their own collecting efforts they began to assemble cabinets of specimens and libraries. Medical schools, the only places where chemistry was taught, became the focus of experimental work, with Dr. Adam Seybert and Robert Hare among the leaders. Foundation of the American Philosophical Society and the Academy of Natural Sciences undergirded this pioneering movement.

In New York, Samuel Latham Mitchell, a physician, and Dr. Archibald Bruce (brucite) became leaders, and the latter established the American Mineralogical Journal in 1809. First of its kind in the United States, it won the attention of European scientists to their colleagues overseas. In Cambridge and Boston the appointment of Dr. John Gorham at Harvard College to lecture on chemistry and mineralogy occurred in the same year. But the next major figure was Parker Cleveland (cleavelandite) of Bowdoin College in Maine, whose "Elementary Treatise on Mineralogy and Geology", published in 1816, was the major work until James Dwight Dana Dana's "System of Mineralogy" appeared in its third edition in 1850. Cleaveland owed a great deal to Benjamin Silliman, under whom Yale College became the leader in establishing mineralogogy as part of the liberal arts curriculum.

This brief summary cannot do justice to the historical scholarship of Prof. John C. Greene of the University of Connecticut and Prof. John G. Burke of the University of California, Los Angeles. Their "The Science of Minerals in the Age of Jefferson" (113 pages) is published by the American Philosophical Society as Vol. 68, Part 4, of its Transactions.

WORD FROM *the* PRESIDENT

Ellwood T. Rees, M.D.

As we get into the New Year, it is time to evaluate the programs that are on-going, and what is to be expected in the future. It is the high quality of these on-going programs, which has made the Regional Federations, and the AFMS, the fine organizations they are today.

However, there are some clouds on the horizon. Inflation is extracting a toll. Cost of supplies and equipment has been increasing. Cost of travel, gasoline and its antisipated restriction has increased to the point that many Rockhounds are restricted to their local areas where extended trips were the rule. This has resulted in some restriction of attendance at Regional Federation and American Federation shows.

Cost of running the Regional Federation and the American Federation has also increased, until at present, some of the Regional Federations, and the American Federation, are in a financial deficit status. This has required an increase in dues.

Despite this, AFMS is in good condition. All committees are functioning. The American Federation is continuing to maintain the high standard of its on-going programs. I am looking forward to seeing you at your Regional Federation shows, and, at the combined American and Midwest Federation show... The American National Gem and Mineral Show, Lincoln, Nebraska, June 12 through 15, 1980.

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Subscriptions to THE PICK & SHOVEL are $3.00 per year mailed.

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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.

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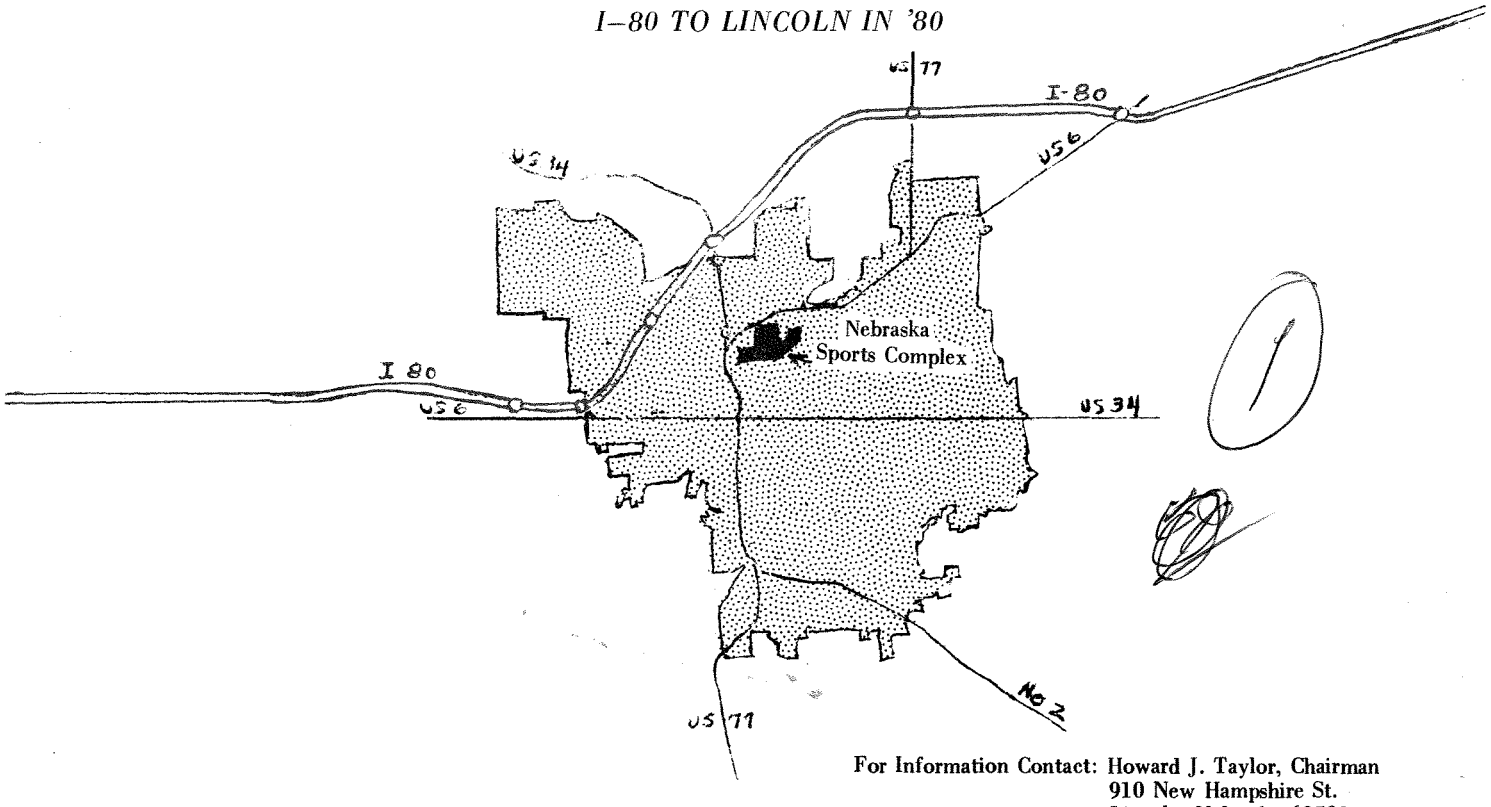

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