

July 75 ✓

T H E



J A S P I L I T E

Affiliated with the Midwest Federation
of Mineralogical and Geological Societies

Midwest Federation's NEWSLETTER

Published monthly except July and August as a service to members clubs.
All news, articles, subscription orders and requests for information concerning publication
should be sent to P. O. Box 1130, Des Moines, Iowa 50311



Issue No. 157 - September 1975



INTERNATIONAL 75

OCTOBER 9, 10, 11, 12, 1975

**MIDWEST FEDERATION & CENTRAL CANADIAN
FEDERATION OF MINERALOGICAL SOCIETIES**

Annual Show and Convention

DETROIT LIGHT GUARD ARMORY — DETROIT, MICHIGAN

CELEBRATES 45TH ANNIVERSARY

The Joliet Mineralogist Society, Joliet, Illinois, celebrated their 45th anniversary last May 22nd with a banquet plus door prizes. Particular tribute was paid to the founders, Frank Fleener and Dr. Ben Wilson. Verne Montgomery, Past President of the Midwest Federation, in a short talk presented the highlights in the lives of these two gentlemen. Dr. Wilson spearheaded the founding of the Midwest Federation in 1940 and was its first president. Dr. Fleener was one of the early officers. Dr. Wilson was also one of the founders of the American Federation.

Two club members gave accounts of the early days of the club. A citation from Mary Anderson, President of the American Federation, was presented to the club by Mr. Montgomery along with an autographed copy of "Brass Tacks". He also presented to the club a congratulatory letter from Terry Huizing, President of the Midwest Federation, plus a special thirty-five year membership certificate from the Midwest.

By letter, Fred Labohn, President of Escon, sent congratulations and best wishes. Members who had been most active in the club during the past years were given special appreciation certificates by the Mineralogist Society.

NEW LAPIDARY CHAIRMAN

Terry Huizing, MWF President, announces the appointment of Lawrence (Larry) H. Nawojski as Lapidary Arts Committee Chairman. Please send any suggestions, comments or ideas on the lapidary arts to him at 22757 Redwood Drive, Richton Park, Illinois 60471.

The scheduled speaker for the International Banquet to be held Saturday, October 11th, 6:30 p.m. is Dr. Donald Gorman of the University of Toronto. The banquet will be held in the Skyline Room, Cleary Auditorium, Windsor, Ontario, Canada.

Convention headquarters is Michigan Inn, 16400 J. L. Hudson Drive, Southfield, Michigan 48075 (313-559-6500) and the convention meetings will be held in the Conference Center, Mercy College of Detroit, 8200 W. Outer Drive at Southfield, Detroit, Michigan. Advance reservation requests may be sent to Gordon Herron, 3155 Grayson Street, Ferndale, Michigan 48220.

The armory will be open from noon until 10:00 P.M. on Wednesday, October 8th, for exhibitors, dealers and others for set-up purposes. All exhibits must be in place by 10:00 P.M. Wednesday.

All pre-registration packets will be available at the west box office window at the armory on Wednesday, October 8th from noon until 10:00 P.M. and also on the following days of the show during regular show hours.

There will be a swapping area available at the show during regular hours and there will be free parking at the armory.



IF YOU MOVE...

please send us your OLD address as well as your NEW address. Also be sure to include your zip code. And remember it takes 60 days for your change in address to become effective due to our mailing schedule.

PUBLIC IMAGE AND COURTESY COMMITTEE

Mrs. Marilyn A. McFadden, Sandscript Editor of the Dunesland Rock Club, Griffith, Indiana, reported that their club held its Third Annual Show recently. At the show, they had a children's game and chance table, consisting of "Spin the Wheel and Receive a Prize". For prizes they used gem stone rings, mineral samples, etc. Another game was "Pick the Lucky Lollypop". This was a three foot by four foot peg board into which lollypops were stuck. The sticks of some of the lollypops were painted black and these won a prize. A few were painted green and won a super prize. All prizes were donated by the club members. Approximately \$60 was earned for the AFMS Scholarship Fund. A homemade bake sale added to the same fund.

Another service at the same show worked out successfully. Science, 4H, Scouts and other groups were assigned a guide to assist them when viewing the displays. The club was told that the groups learned so much more by having this guide along. In some cases the groups took almost two hours just to look at and discuss the displays.

MICHIGAN GEOLOGICAL SURVEY PAMPHLETS

The Michigan Department of Natural Resources has a long record of cooperation with the MWF in Michigan. The following publications which are offered free of charge are one example. Only the first copy is free.

Michigan Beach Stones
Michigan's Colorful Minerals
Guide to Michigan Fossils
Collecting Minerals in Michigan
Small Scale Map #2 - Bedrock of Michigan

Submit your request to DNR Publications Room, Stevens T. Mason Building, Lansing, Michigan 48926.

Since only the first copy is free, for additional copies enclose 5¢ each for the first two listed and 10¢ each for the remainder. Make check payable to State of Michigan, please.

LAWS AND THE LAPIDARY

Jewelers manufacturing metal items for sale are required by U. S. law to be informative and truthful about their products. Anything less than 10 karat cannot be called gold. Sterling must be 925/1000 fine silver to be stamped sterling, and items made from 900/1000 may be stamped coin silver. Any combinations of precious metals or precious metals with other metals must also be accurately marked.

Plated articles must use a coat of at least 10K fine gold. Gold filled may be used only when 1/20 or above of the total metal weight is karat gold.

FTC rules also define and control descriptions of gems. Diamonds advertised for jewelry as cut or finished diamonds must have at least 17 facets. To be called "perfect" a diamond, according to FTC, should have no flaws, cracks, spots, clouds, or other imperfections when examined in daylight with a ten power magnifier. If several diamonds are used in a piece of jewelry the total weight claimed by the jeweler must be accurate to within 1/200th of a carat.

Welcome new members

CHAMBERLAIN GEM AND MINERAL SOCIETY

Marvin W. Waldner, President
206 South Courtland Street
Chamberlain, South Dakota 57325
Joined May 12, 1975

HURON HIGH GEOLOGY CLUB - Junior Club

David P. Thomas - Sponsor
8233 Forrest Avenue
Plymouth, Michigan 48170
Joined May 22, 1975

BICENTENNIAL FEATURES - How Did It Start?

We should be particularly conscious this year, the nation's Bicentennial Year, of the big part that those who were interested in minerals and gems have played in our national life and in our own areas throughout the decades. Our mineral resources and the search for them created the way of life for many communities, and now the hobby of collecting minerals and of cutting and polishing them is making an impact on the history and economy of every place which has a club.

Dr. Ben Hur Wilson and Dr. Richard Pearl met in Ottumwa, Iowa, in 1946 after considerable correspondence to discuss forming the American Federation of Mineralogical Societies, which had first been suggested by Dr. H. C. Dake, Editor of the Mineralogist Magazine. At that time there were four regional federations: the Midwest, of which Dr. Wilson was president, the Rocky Mountain, whose president was Dr. Pearl, Northwest, president, Lloyd Roberson, and California, with president Ernest Chapman. The four sent delegates to a convention in Salt Lake City and the American Federation was born with Dr. Wilson being elected the first president.

We would be interested in the beginnings of your club, especially if it has been active 25 years or more. This is the time for you to look into the history of your own involvement in the hobby and to honor those who have made the organized hobby what it is. Send your mini-history to June Zeitner, AFMS Associated Bulletin Editors, Mission, S. Dakota 57555.

MISSOURI CLUB PLACES CASE WITH SCHOOLS

At a recent regular meeting, the Earth Science Club of Missouri (ESCOMO) had as their guests the Mayor of Brentwood, Missouri and the Librarian. They were presented with a large display case the members had made and filled with minerals of Missouri and world minerals as well. This is to be used by the Brentwood School System and requisitioned out from the Library during the school year. The club will begin another such case as their project in the fall.



**THIS IS YOUR LAND
KEEP IT CLEAN**

Midwest Federation's NEWSLETTER

Published monthly except July and August as a service to members clubs.
All news, articles, subscription orders and requests for information concerning publication
should be sent to P. O. Box 1130, Des Moines, Iowa 50311



Issue No. 157 - September 1975

PROPOSED BY-LAWS CHANGES

Our Midwest Federation is in its 35th year. During the past ten years of war, recession and inflation it has grown in size and service from 160 to the 258 clubs that are its members and its reason for existence. This article is to advise you of several proposed changes to our by-laws unanimously recommended by the Executive Committee. These proposals will be submitted for voting by the membership of this Federation at the Council Meeting in Detroit.

Regretably, the inflationary spiral we have personally experienced has not avoided your Federation. The MWF Finance Committee report given at the Spring Meeting and mailed to each club details those facts. Your Executive Committee has taken action to bring in additional income by recommending a dues increase.

The proposed change involves part of Article II, Section I of the By-laws and results in increasing MWF dues from 36¢ to 50¢ per each dues-paying member of adult societies. Also, dues for individual members would be increased from \$5.00 to \$10.00 per year.

We regret the need to ask for an increase in dues. No reasonable alternative is available. Other income sources do not exist. Your Federation has been efficiently managed to produce maximum service at minimum cost. However, postage has risen to 10¢ with a further increase to 13¢ later this year under consideration. Likewise, cost of printing, stationery and other materials and supplies have risen sharply.

Please review the report of the Finance Committee and the recommendations of the Executive Committee. Discuss this information with your club members.

The proposals will be acted upon at the Council Meeting October 11, 1975.

All American Club Awards

The Midwest Federation again led the nation in entries in the AFMS All-American program. The awards were presented at the National Convention in Denver, June 19th through 22nd. The Midwest Federation with seventy-three entries had half the total of all six regional federations.

Judges for the All-American/Merit Award Trophies and honors this year were from the Twin Cities area in Minnesota. All have been active in their clubs and in Federation affairs. Mr. and Mrs. Bill Dahlberg of Minneapolis (Minnesota Mineral Club) were co-chairmen. Bill is a former Midwest Treasurer and Jean was State Vice President for Minnesota. Both worked

Club Awards...continued back page

OFFICIAL 1975 MWF SHOW-CONVENTION PROGRAM

OCTOBER 9-10-11-12

Light Guard Armory, 4400 E. Eight Mile Road, Detroit, Michigan

Convention headquarters is Michigan Inn, 16400 J. L. Hundson Drive, Southfield, Michigan 48075 (313-559-6500) and the convention meetings will be held in the Conference Center, Mercy College of Detroit, 8200 W. Outer Drive at Southfield, Detroit, Michigan. Advance reservation requests may be sent to Gordon Herron, 3155 Grayson Street, Ferndale, Michigan 48220.

There will be a swapping area available at the show during regular hours and there will be free parking at the armory.

Naturalized citizens attending the Saturday night banquet in Windsor, Canada, should carry proof of citizenship with them to forestall any difficulties in crossing the border when returning to the United States.

The armory will be open from noon until 10:00 P.M. on Wednesday, October 8th, for exhibitors, dealers and others for set-up purposes. All exhibits must be in place by 10:00 P.M. Wednesday.

All pre-registration packets will be available at the west box office window at the armory on Wednesday, October 8th from noon until 10:00 P.M. and also on the following days of the show during regular show hours.

THURSDAY, OCTOBER 9

- 9:45 - OPENING CEREMONIES - at the Flagpole, Light Guard Armory
- 10:00 - SHOW OPENS - Light Guard Armory
- 10:00 - FRIENDS OF MINERALOGY MEETING - Arthur Johnstone, Director Region 5, presiding, Program Room, Light Guard Armory
- 2:00 - JOHN WHITE, Editor Mineralogical Record, "The Smithsonian Collection Supports Research", Program Room, Light Guard Armory
- 4:00 - MR. AND MRS. DONALD DILLER, Three Rivers Mineralogical Society, "Carving Methods and Tools" Program Room, Light Guard Armory
- 7:00 - MICROMOUNTER'S SYMPOSIUM, Edward S. Wilson, Michigan Mineralogical Society, presiding Paul Desautels, Smithsonian Institution, speaker Program Room, Light Guard Armory
- 10:00 - SHOW CLOSES FOR THE DAY - Light Guard Armory

FRIDAY, OCTOBER 10

- 8:00 - ALL EDITORS' BREAKFAST - Paul Good, Midwest Federation Bulletin Editor's Chairman, Presiding Conference Center, Mercy College of Detroit

Continued on back page

- 8:45 - MINERAL MUSEUM ADVISORY COUNCIL MEETING
Dr. Robert Gait, President, presiding, Cranbrook
Institute of Science, Bloomfield Hills
- 10:00 - MIDWEST FEDERATION STATE DIRECTORS' MEETING
Hazel Kuntz, Vice President, presiding
Conference Center, Mercy College of Detroit
- 10:00 - SHOW OPENS FOR THE DAY - Light Guard Armory
- 1:00 - MIDWEST FEDERATION EXECUTIVE COMMITTEE
Terry Huizing, President, presiding
Conference Center, Mercy College of Detroit
- 2:00 - DR. JOSEPH MANDARION, Mineral Curator Royal
Ontario Museum, "New Yukon Phosphate Mineral
Location", Program Room, Light Guard Armory
- 4:00 - PAUL DESAUTELS, Smithsonian Institution, Division
of Mineralogy. Topic will be announced. Program
Room, Light Guard Armory
- 7:30 - DR. WILLIARD-PARSONS, Department of Geology,
Wayne State University, "Volcanoes of Guatamala"
Program Room, Light Guard Armory
- 10:00 - SHOW CLOSES FOR THE DAY - Light Guard Armory

SATURDAY, OCTOBER 11

- 8:00 - MIDWEST FEDERATION DELEGATES REGISTRATION
Conference Center, Mercy College of Detroit
- 9:00 - MIDWEST FEDERATION COUNCIL MEETING
Terry Huizing, President, presiding
Conference Center, Mercy College of Detroit
- 9:30 - CENTRAL CANADIAN FEDERATION COUNCIL
MEETING, James Brownlee, President, presiding
National Travelers Motel, Windsor, Ontario, Canada
- 10:00 - SHOW OPENS FOR THE DAY - Light Guard Armory
- 10:00 - MINERAL SYMPOSIUM, Dr. Joseph Mandarion,
Royal Ontario Museum, moderator, Program Room
Light Guard Armory
- 12:00 - MIDWEST DELEGATES LUNCHEON, Conference
Center, Mercy College of Detroit
- 2:00 - DR. VINCENT MANSON, American Museum of
Natural History, "Gemstones of the American Museum
of Natural History", Program Room, Light Guard Armory
- 6:30 - INTERNATIONAL SOCIAL HOUR, Skyline Room,
Cleary Auditorium, Windsor, Ontario, Canada
- 7:30 - INTERNATIONAL BANQUET, Skyline Room, Cleary
Auditorium, Windsor, Ontario, Canada
- 10:00 - SHOW CLOSES FOR THE DAY, Light Guard Armory

SUNDAY, OCTOBER 12

- 10:00 - SHOW OPENS FOR THE DAY, Light Guard Armory
- 10:00 - SHOW COMMITTEE SYMPOSIUM, Harold W. Neinert,
Michigan Mineralogical Society, presiding, Program
Room, Light Guard Armory
- 11:00 - DENNIS THORN, Past President Central Canadian
Federation, "Fossils of Arkona, Ontario"
- 2:00 - DR. A. D. TUSHINGHAM, Chief Archaeologist,
Royal Ontario Museum, "Iranian Treasury"
Program Room, Light Guard Armory
- 6:00 - SHOW CLOSES, Light Guard Armory

All-American Club Awards...continued

Webster Jones (Minnesota Mineral Club) and Mr. and Mrs.
Harold Maine (Central Minnesota Mineral Society).
on the show committee when the Midwest Convention was held
in Minneapolis in 1970. Other judges were Mr. and Mrs. J.

As is customary for Midwest Federation entries, reasons
for the club citations have been listed by the judges. Com-

menting that the entires were of excellent quality and some of
them very close, the judges announced the following winners
who received their trophies at Denver. Additional Midwest
Merit Award winners will be announced at the Midwest Show
in Detroit. Thanks to the judges for their dedicated work for
the Federation and to the many clubs which have enthusiasti-
cally participated in this annual event.

The Lincoln Gem and Mineral Club of Lincoln received
the AFMS Trophy and the Midwest Federation Trophy. This
club not only organized and presented an American Federation
and Midwest Federation combined show, but they continued
their community efforts in library, youth groups, community
centers and individually sponsored informational displays.

The Roehm Geology Club of Berea, Ohio which is a junior
club has reached out into the community in many ways, and
the inspiration it has generated in the young people in the
school and community is outstanding.

The Kettle Moraine Geological Society of Hartland, Wis-
consin has fine programs for members and wide participation of
members in school and other public displays. It has worked to
help establish a State Preserve and placed on display in a park,
large boulders of the Devonian Fossils for study of future gen-
erations.

The Earth Science Club of Northern Illinois has an unusual
and continuing program for juniors. It has a diverse and active
program for adults and reaches into the communities of its mem-
bers in every way. It has been extremely active in the help it
has offered to the exploration of the archaeological researches
of the Koster Dig, both in money and people.

The Duneland Rock Club, Inc. of Gary, Indiana has reach-
ed into its own county and adjacent counties to put in displays.
It has helped schools, scouts and adults to learn more about
our hobby. It furnished three schools with lapidary equipment
used by both children and adult education. It has been active
in aiding new clubs of both children and adults. A university
student has helped to make a study of Jade, and the Indiana
University NW was given samples of required minerals for its
study groups. This is a small club of fifty-two members.

The following clubs received HONORABLE MENTION:
Des Moines Lapidary Society for loan of their machinery to
schools and camps.
Bloomington Gem and Mineral Club (MN) for work with Veter-
ans Hospital and Children's Hospital.
Waterford Gem and Mineral Club (MI) for loaning money and
equipment to other clubs.
Heart of Wisconsin Gem and Mineral Society for work with
schools, especially rotation of school displays.
McDonnell-Douglas Gem and Mineral Society (MO) for help
in community activities.
West River Earth Science Society (S.D.) for sponsoring a public
display of Badlands material in the National Grasslands
Office and printing brochures to accompany it.
Neville Public Museum Geology Club (WI) for maps of mineral
localities used by the University of Wisconsin and for
travelling exhibits.
Lake County Gem and Mineral Society (IL) for aid in Koster
Dig, assistance to disturbed boys and providing litter bags.
Flint Rock and Gem Club (MI) for educational activities
Central Michigan Lapidary and Mineral Society for work with
4H, youth talent exhibits and work with Senior Citizens
and aid to University Geology Department.

OFFICIAL PUBLICATION
of the
ISHPEMING ROCK AND MINERAL CLUB, INC.
Published quarterly

OFFICERS & COMMITTEE CHAIRMEN - 1975

President	Frazier Tubbs	Ishpeming
1st Vice President	Carlton Gutman	Marquette
2nd Vice President	Ray Boerup	Gwinn
Secretary	Helen Johnson (pro tem)	Marquette
Treasurer	Arnold Mulzer	Marquette
Sunshine	Mildred Jenkins	Ishpeming
Publicity	Helen Johnson	Marquette
Finance	Ray Anderson	Marquette
Field Trip	Bob Phillips	Ishpeming
Safety	Leonard Bartelli	Marquette
Curator	C.R. Markert	Ishpeming
Scholarship	Marian Markert	Ishpeming
Hostess Ch...	Eleanor LaChance & Barbara DePetro	Marquette
Education	Vern Miljour	Gwinn
Jr. Member Co-ordinators	Pat Elie & Chris Miljour	Gwinn
Librarian	Ernest Johnson	Marquette
Bulletin Librarian	Edith Anderson	Marquette
1975 ROCK SWAP	Pat Bemis	Gwinn
JASPILITE Editors	Laurence and Olive Sain	Marquette

Deadlines: March 1, June 1, September 1, and December 1.

MEETINGS: 3rd Sunday of the month, 2 P.M., Bothwell School, Marquette
October through April. Field Trips during the summer.

Membership: The Ishpeming Rock and Mineral Club, Inc. is open to anyone interested in the Earth Sciences.

- Initiation fee.....\$1.50
- Husband and wife annual dues.. 3.00
- Adult annual dues..... 2.00
- Junior annual dues..... 1.00

Material in this bulletin may be copied provided full credit is given to the author and the bulletin.

OUR PURPOSE

To enjoy, to learn, to teach and to conserve
The rocks, the gems, the fossils and ores.
To collect, to admire, to brag and to show
The material we've found we'll trade for yours.
.....Bob & Marian Markert

CONTENTS

President's letter.....2	Spectacular Pyrite..... 14
Secretary's minutes.....3,4	New Mineral list..... 14
Rock Swap..... 5	National Rockhound Directory... 15
Bits and Pieces..... 6	16 Carat Diamond..... 15
Sharing.....7,8	Characteristics of Gemstones 16,19
Rockin' 'Round.....9,10	Shop Hints..... 20
Library Notes.....11,13	

President's Message

Now that summer is about gone we look ahead to the first regular club meeting on Sunday, October 19th, 2 p.m. at the Bothwell Middle School. We also look back at the summer activities which included some good field trips that were well attended. Only one trip had to be scrubbed due to the results of a tornado at the camp of that trip's leader. Thanks to Bob Phillips for a job well done and also thanks to Laurence for taking up the slack when some leader couldn't make it.

Thank you club members for participating in the U.P. Show hosted by the Stonehead Club at White Pine and especially those who made the effort to bring displays. This helped to make the show a success.

I want to express my thanks to everyone helping with our second annual swap. Again it was a huge success. We had good reports from those who took part in the swapping and auction. Everyone enjoyed the field trips. Many thanks to one and all.

We are making plans for the U.F. Show next summer to be held in the Lakeview Arena in Marquette, August 6-8. It's not too soon to be thinking about displays for the show. During this coming winter we will be having some programs and instruction about displaying specimens.

Many club members now have their badges. Tell me if you would like a badge for yourself or family and what names to put on them. The cost is \$2.00 per badge.

Do look up your June issue of the Jaspilite and read Carlton Gutman's article so you will be ready to respond to the suggestions/options he has submitted for your consideration.

In case you miss a meeting-- our November meeting is held on the 2nd Sunday so our hunters won't miss a day in the field. The place and hour of meeting will be the same. December we traditionally have a dinner and party, generally on the evening of our regular meeting date. More about plans at our regular meetings for the party.

See you at the October meeting!

Frazier H. Tubbs

--SHOW CALENDAR--

October 9-12 MWF Show & Convention. Michigan Mineralogical Society and Windsor Mineralogical Society. Light Guard Armory, Detroit, Mi.

October 24-26 Show. Central Michigan Lapidary and Mineral Society. National Guard Armory, 2500 S. Washington, Lansing, Mi.

Michigan State Director for MWF, Arline Buehler has appointed Ernest J. Michaud, 3014 Comance Ave., Flint, Mi. 48507 as "Show Date Coordinator" He will serve as a central information depository so as soon as a club is considering a choice of dates for an event contact him thus avoiding nearby events happening on the same day.

.....Notes from the Secretary's Minutes...

Chamber of Commerce display: Burton Boyum, representing the Ishpeming C of C contacted Frazier about the condition and location of the club's rock and mineral display at the Chamber office. The Chamber suggested a two-sided, all glass partition, incorporating the display, be built between the chamber office and the Hematite Travel Service office. Mr. Boyum stated specimens from the CCI museum could be used to better and /or fill in the present display owned by our club, club members or former club members. He also stated the club could keep CCI's specimens in the event our club should ever have a permanent meeting place. Since many questions were asked by the Board members Frazier will meet again with Mr. Boyum and with Bob Markert, representing the travel agency to get more details. Then a special meeting of the Board will be called.

The rock cases at the Ishpeming C of C were bought originally by Bob Markert and were second-hand. They were first placed at the National Ski Hall of Fame in Ishpeming. They are quite old, made of oak and are illuminated. Mr. Boyum thought the club might like more modern cases with better illumination. The present two cabinets are about 6½ feet high and about 8 feet wide. It was suggested that the new cases be 6 feet high (maximum) for good viewing, 10 inches deep and have a 6-8" kickboard at the bottom. The possibility of purchasing modular cases from a catalog was discussed as they might be cheaper and offer more portability. Frazier Tubbs and Bob Markert will get information and prices of various kinds of cabinets available. Mr. Boyum donated \$20. toward the purchase of new cases. After some discussion Ernie Johnson made a motion that the club continue to investigate types of cabinets but retain the present cabinets for the time being. Arnold Mulzer seconded the motion. Passed.

At the August Board meeting Bob Markert said the Hematite Travel Agency had moved out of the C of C building and it may not be necessary to buy new cases for the club display.

Secretary's resignation: A letter of resignation from her secretary's duties was received from Dorothy Tubbs. A replacement will be sought over the summer months. A motion was made by Carl Gutman that the club commend Dorothy for a job well done. Motion seconded by Vern Miljour. Passed.

First Aid Kit: At the May Board meeting Leonard Bartelli displayed the first aid kit he has assembled for the club's use on field trips. Mrs. Bartelli donated a vanity case to hold the numerous items purchased or donated. A suggestion to purchase an oxygen tank, in addition to the items in the kit, was made by Frazier Tubbs.

Mini-Auction: Vern Miljour suggested holding a mini-auction at each indoor meeting as part of the educational portion of the meeting. One specimen, identified, would be auctioned off at each meeting.

Badges and president's pins: Frazier Tubbs showed a sample of the new name badges which will be ordered. Cost is \$2.00 and they may be ordered from Frazier. Bob Markert will design a pin for past presidents of the club.

.....next page.....

.....Secretary's minutes.....

Axonite: Asonite crystals, a new mineral, found in Marquette County was described by Bob Markert. They must be leached out of Calcite crystals and are found north of US Hwy 41.

American Federation Scholarship Fund: Olive Sain made a motion the treasurer contact Marian Markert, scholarship chairman, and issue a check for the fund from the proceeds of the February silent auction and the \$72.00 collected at last year's swap for the trip to the Lindberg Quarry. Motion passed. Letters from Ellis Courter and Glenn Lee were received in which they thanked the club for their contribution to the fund. We are now a 600% club and have \$61.49 toward 700%. In response to an inquiry Marian explained how scholarship recipients are selected. Two persons are selected from each Federation each year by college professors in the Federation. Recipients must be geologists working on their doctor's degree. A clubs' percentage rating is based on the clubs' membership each year. (Example: 75 members--\$75.= 100%)

Insurance: There is a possibility that annual insurance for the club will not cover special events but riders will have to be purchased for these. Laurence Sain moved that the club purchase the necessary insurance regardless of which way it must be. Seconded by Mariam Markert. Passed.

1976 Upper Peninsula Show: Dates suggested were Aug. 6-8, 7-8 as 1st choice and July 30-Aug. 1 as 2nd choice. Olive Sain moved that the show be held on one of these dates. Seconded by Bob Markert; carried. Times suggested were: all day Friday to 6 p.m. Sunday (set up on Thurs), or 5 p.m. Friday to 6 p.m. Sunday (set up on Friday before 5 p.m.). In either case no displays would be taken down before 6 p.m. Sunday.

Location: The show cannot be held in either the Ishpeming or Marquette Armory on the first weekend of the month because of guard drills. Shows in Malls are not favorable to dealers. Lakeview arena in Marquette charges \$250.00 per day and evening. There is no charge for the set-up day. It was moved by Laurence Sain that the 1976 U.F. Gem and Mineral Show be held in the Lakeview Arena. Seconded by Bob Markert; carried.

Dealer Chairman: Bob Markert offered to be dealer chairman. He moved that the dealers for the show be approved by the board. Seconded by Barbara DePetro and carried. Already 5 or 6 applications have been received from dealers.

Show Chairman: Since no volunteer has been found to take this job, Frazier Tubbs said he would be show chairman if Carl Gutman would be club president in 1976, subject to approval of the board. Carl will also help as co-chairman of the show. Frazier and Carl will meet with Bob Markert and plan the committees needed for the show. The dates will be sent to the Lapidary Journal and the Midwest Federation as soon as it is cleared with the Lakeview Arena. Any suggestions for the show will be welcomed by the chairman and co-chairman.

1975 U.F. Gem and Mineral Show: The president thanked the board for the support given the Stonehead Club hosting the show. Five cases and a huge specimen of agatized wood were shown by our club: Sain's 2 cases, Tubbs' 2 cases and Bell had 1 case and the agatized wood.

.....Helen Johnson & Dorothy Tubbs

ROCK SWAP 1975

The 1975 Rock Swap was held at the Marquette Tourist Park on August 16. The weather was hot, dry and clear but ended in a shower.

There were 138 individuals registered. They represented 10 states and 26 clubs. Michigan came in first with 10 different clubs being present followed by Wisconsin with 7 and with one club each from the following states: New Jersey, Arizona, Missouri, Florida, New York, Indiana, Colorado, Minnesota and one club from our northern neighbor, Canada.

The ball field where the swap was held, looked like a used car lot. When you get that many rockhounds together you find just about any type vehicle from little compact cars to over-the-road motor homes with just about every type you can imagine in between. They all had one thing in common. They came to swap, talk, renew old friendships and just to have a good time.

The silent auction tables started about 10 a.m. and ran until about 3 p.m. There were better than 200 specimens put up for sale. At the same time, the Pebble Pups were holding their own auction of items they had made and others that were donated to them.

An estimated 30 door prizes were given away during the day.

The afternoon ended in a brief but hard rain shower that settled the dust but cleared up in time for the Cracker Barrel session that evening. The evening session started around 7 with cheese and crackers, coffee and lemonade.. The evening talk session lasted until dark and then a slide presentation depicting the history of the copper country began. Around 10:30 or so, everyone called it a day.

On Sunday, August 17, the tourist park started to come alive again about 11 a.m. with the first field trip registrants and guides showing up. At 12:15 the caravan started with about 26 vehicles of all makes and models proceeding through Marquette to Lindberg's Quarry for Kona. From there they went on to Palmer for Jaspilite and then to the Champion Mine; the final stop of the day. There were around 80 individuals partaking in the field trips and from the looks of their vehicles, everyone was able to take back enough material. One chunk of Kona was secured by use of a belt, rug and many helping hands!

On behalf of the Ishpeming Rock and Mineral Club, I would like to thank all who attended, worked at various jobs and donated specimens to our Swap. Hope to see all you fine people and your friends next year when we will be hosting the U.P. Gem and Mineral Show in Marquette.

HANDY HINT-- Windshield wiper blades tend to dry out and their efficiency is decreased. To restore and prolong their life, wipe the blades good with a rag dipped in lacquer thinner. It acts as a mild solvent on composition rubber. Do this 2 times a year, and the wipers should last for the life of your car.

Also, if your tumbler revolves on rubber rollers, clean them with lacquer thinner. (The Lapidary via The Geode)

BITS and PIECES.....Arnold Mulzer

An article in Cliffs Digest included a report on CCI's operations in Western Australia. Total shipments from their Robe River Iron ore mine was over 10,000,000 tons. Principle buyers were steel mills in Japan. Ore is shipped in ore carriers holding 120,000 tons which is about 4 or 5 times larger than our Lake Superior ore carriers. Specimens of this ore were given to members attending our Rock Swaps in 1974 and 1975.

Records don't last long in our club. As of this date, David Lee has replaced Richard Yelland as the youngest member.

You don't have to be a long time rock hound to come up with some good specimens. Faustin Anderson, 2 year club member and age 74, came home with a prize chunk of native copper weighing 25 pounds from the club's Memorial Day field trip in the Ontonagon area.

When in Ishpeming why not drop in to the Chamber of Commerce Building on Division Street to see and admire the fine exhibit of rocks and minerals the club has displayed in some handsome antique showcases.

Have you ever been on Jasper Knob in the city of Ishpeming? It is the largest gem stone to some rockhounds. Look for the mountain, you can drive to it, park next to it and walk to the top to enjoy the rippling formations as well as the scenery from that vantage point. NO COLLECTING here as we want to preserve this unique formation for all future generations. Take your camera and you can be certain of getting many colorful and scenic pictures, especially during the fall color season.

Do you remember our field trip to the Tilden mine during the 1972 MWF convention we saw nothing but bulldozers clearing land. Today the plant is in full production---4,000,000 tons of pellets per year. The storage bin holds 120,000 tons or about 190 railroad cars. The bin can be emptied in less than three hours. 250 cars is the capacity of the average ore boat. Plans are in the making to enlarge the mine to produce 12,000,000 tons per year. When completed, more money will have been spent on this facility than all the rest of the mines on the Marquette range since 1843; and there were hundreds.

The first rockhounds to enter our Swap area this year were Nelson and Marion Short of the Livingston Gem and Mineral Society, Howell, Michigan, just under 400 miles. Some came much greater distances but all with the same purposes--fun, swap and collect! Oscar Binder, president of the Racine, Wisconsin club and the Armstrong sisters from Independence, Missouri were also early birds.

Too bad our new badges didn't arrive in time for us to flash them at the swap. They are here now. Pay me and get yours to wear at our meetings, and definitely at the 1976 U.P. Gem and Mineral Show.

Marquette Tourist Park attendants report that 35 trailer sites were occupied by rockhounds attending our swap. They say it was the best group of visitors they have ever had--quiet, respectful and neat. We are proud of our guests and welcome them back next year for our show.

SHARING IS CARING....Caring is sharing....Sharing is caring

U.P. Specimens sent to young Arizona Collector

During the summer our president, Frazier Tubbs received a letter which had been sent to the Ishpeming Chamber of Commerce telling about a young collector in Arizona. She is a 16 year old girl confined to a wheel chair because of cancer in both legs. She saw some pictures of Michigan specimens in a book and wanted some to put in her collection. She wanted these so badly she was willing to sell her wheel chair to get the money to buy them.

Members of our club were contacted and asked to bring one or two small specimens of U.P. minerals for Louise when they came to the swap. 52 different specimens were collected, labeled, packed and shipped via United Parcel. All of the specimens were from the U.P. except two: a lovely polished Petoskey stone and a nice piece of Halite. We asked the State Line club in southern Michigan to send lower peninsula and northern Ohio specimens to Louise. Between the two clubs this young collector should have quite a complete collection of Michigan minerals.

We lacked a few of the minerals that are found in the U.P. and if anyone would like to provide small specimens of these they can be sent later. Needed are:

Actinolite & Tremolite from Felch, Selenite crystals from Crystal Falls, Galena, Sphalerite, Mohawkite, Manganite, Hausmannite, Bornite, Epidote and Martite.

Specimens sent to Louise Kinch

Adularia--Houghton	Iron Lace Agate--Republic
Analcite--Copper Falls	Laumontite--Minnesota mine
Barite-(bladed in Quartz, Calcite & pyrite incl.)--Republic	Magnetite (banded & crystalline)
Chalcocite--Baltic mine	Malachite & Cuprite in Conglomerate
Copper--(cleaned and uncleaned)	--Allouez
Datolite (crystalline)--Copper Falls	Mountain Leather--Ohio mine
Datolite (nodule-with polished face)--Mass	Prehnite--Ojibway mine
Feldspar & Satin Spar--Escanaba	Picrolite--Ishpeming
Feldspar & Mica--Republic	Pyrite--Republic mine
Fulgurite--Marquette County	Pyrolusite--Alberta
Garnet--Republic	Quartz & Barite (crystalline)--Republic
Goethite(golden needle & botryoidal) Marquette County	Quartz, Barite & Calcite on Hematite.--Republic
Garnet pseudomorph--Mt. Shasta	Quartz (porcelain ledge Agate)--Copper Harbor
Grunerite--Mt. Shasta	Quartz (crystalline on Hematite) ---Republic
Hematite (hard & specular)	Quartz (drusy)--Alberta
Hematite (micaceous)--all from Marquette County	Quartz (rock crystal)--Goose Lake
Gypsum & Selenite--Crystal Falls	Sericite (white mica)--Champion
Hornblende & Feldspar in Quartz	Siderite--Champion
Ilmenite on Quartz--Republic	Serpentine (Verde Antique)--Ishpeming
Jasper--Marquette County	Slate (wee-wee)--Lindberg Quarry
Jaspilite--Ishpeming	Talc--Ishpeming
Kona Dolomite--Marquette County	

.....specimens for Louise.....

- Tourmaline in Hematite--Champion Beach stones --Lake Superior (polished and unpolished) (Agate, chert, feldspar and Thomsonite)
- Small piece of polished Chlorastrolite in Basalt
- Small slabs (3) of polishing material (polished)
- Brachiopod fossils--Stonington Petoskey stone (polished)
- Halite--Detroit
- Beach stone figures (a skier & an animal)

(The correspondence, assembling and packaging were done by Dorothy and Frazier Tubbs. If you have any of the specimens on the 'wanted' list bring them to the October meeting. Should you have other specimens not mentioned in either list, bring them also. A follow up package would be a thrilling surprise to Louise.)

SHARING Our Hobby With Others

Marian and Bob Markert have had a busy time in the spare hours they could muster to hold mini-field trips for three groups of school children and the special group from the Sunshine Inn of Ishpeming. They prepared kits of 15 to 16 different minerals for the youngsters so that as each specimen was explained they could see, feel and set each piece in its proper place; then they wrote each name on their own list. This was followed by a field trip in their yard to identify the rocks seen earlier.

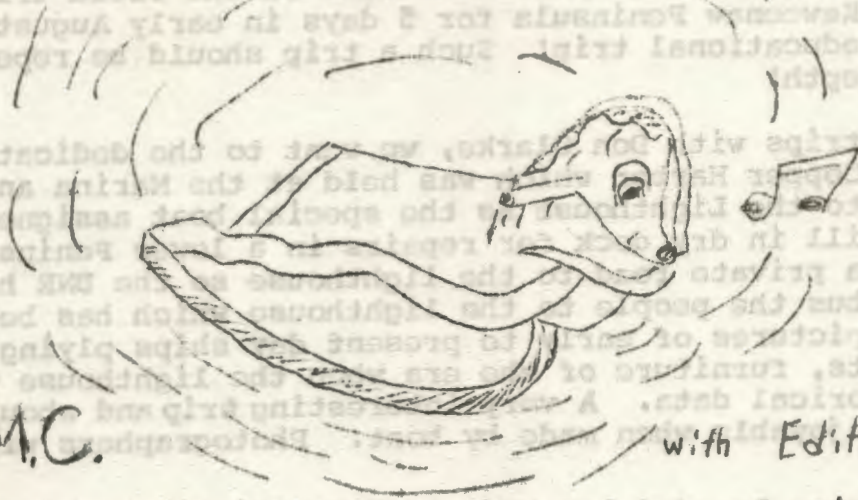
How fortunate these children were to have had the opportunity to experience first hand an introduction to the Earth Sciences and the world about them.

Reward? The satisfaction of sharing what you know with others, opening their eyes to the fascinating world of nature all about us, and encouraging a thirst for knowledge and understanding of our environment.

Another facet of our hobby--making jewelry from polished stones was shared by Olive Sain with the Senior Citizens' group from Marquette. They had a tour of the workroom where they saw the several kinds of machines used to polish rocks and then viewed some of the ways of using these stones. After a simple demonstration in caging rock with copper wire, the women had an opportunity to try their hand at it.

Spreading "good will " is a characteristic of rockhounds as noted from a letter this editor received from Kathleen Browning, Bluff Dwellers Cave, Missouri: "George Bell has been to our place several times and brought some fine specimens. From your club's tour of the Republic Mine we now have a fine specimen of Micaceous Hematite for our Museum. Last year he brought us a fine specimen of Kona Dolomite--so we feel that you must have a real great club to have such members. Wish that we were near you to join you since rocks, minerals, fossils and ores are our great interest, too. Perhaps some day you or some of your members will be in the Ozarks and can visit us. But in the meantime, we are grateful for such clubs as yours and especially members like George Bell."

Rockin' Round



I.R. & M.C.

with Edith Anderson

September is here with its cool weather and lots of rain but rockhounds can look forward to some nice weather for collecting before the snow arrives--although one of our members encountered some sizeable flakes coming down in a combination rain/snow shower earlier in the month. It will be good to see one another at our October meeting and find out what special finds were made, etc., etc.

Our first meeting will be a busy one, especially as we are reminded that we will host the 1976 U.P. Gem and Mineral Show. Hope you are already thinking of preparing an exhibit. With the fine club field trips and individual collecting trips behind us, everyone should have an abundance of specimens from which to choose. Think positive--I will make an exhibit! If you need help in "how to do" "what to choose" "identification" etc., just ask a fellow club member for help. Don't be afraid of competition because each case is judged on points rather than one case against another. The judges are very helpful as they do their rating--you get a paper with their comments along with rating. Also be prepared to wear many hats--the fewer members who work the more hats the remainder of the members have to wear. So share your time and talents.

Guess our membership has been quite healthy this summer as I haven't heard of any illnesses other than that Dorothy Tubbs, Theresa Bemis and Doris Garceau spent some time in the hospital but seeing them at the rock swap, they must be a-okay.

Chris and Vern Miljour who had such complete plans for travelling through the Northwest in our last Jaspilite made it all come true. They traveled 9000 miles and came back with many stories of their experiences. Preceding them were several shipments of rocks collected amounting to enough to stock a good sized rock shop or to keep several clubs going for a couple of years of study and work. Hope to see and hear more about their travels and the collection.

.....Rockin' 'round.....

The LaChance's and DePetro's went to Oregon on a month long vacation after our swap. How about writing up your experiences for the next Jaspilite?

The Bartelli's, Sain's and Andersons' went on the field trip with Don Clarke in the Keweenaw Peninsula for 5 days in early August. A most enjoyable and educational trip! Such a trip should be repeated and reported on in depth!

Preceding the trips with Don Clarke, we went to the dedication of the Lighthouse at Copper Harbor which was held at the Marina and then everyone was bused to the Lighthouse as the special boat assigned to this project was still in dry dock for repairs in a lower Peninsula harbor. There is only a private road to the lighthouse so the DNR had received permission to bus the people to the lighthouse which has been made into a museum with pictures of early to present day ships plying the Great Lakes, artifacts, furniture of the era when the lighthouse was used and other historical data. A very interesting trip and should be as much or more enjoyable when made by boat. Photographers will be in their glory.

Mineral Digest number VI has arrived and is ready for members to read. It is a beautiful magazine/book full of pictures and information---will be at the October meeting for loan.

We understand there will be wedding bells for Tony Elie in September. The very best wishes for happiness to Tony and his bride.

Bob Markert was one of six outstanding citizens honored at a dinner hosted by the Ishpeming Chamber of Commerce this summer.

Tina and George Bell visited members of the Dallas County Rock Club in Iowa. The club will long remember their visit as they are now the proud owners of a lovely rock specimen given by the Bells.

Mr. and Mrs. Jerry Hughes are the proud parents of daughter Bridget born June 14. Jerry is a member of our club and lives in Harbor Springs, Michigan. Doris and Fred Garceau now have 24 grandchildren.

We extend our sympathy to Helen Mortenson in the loss of her husband, Floyd, this summer.

FLOYD MORTENSON

It was back in 1953 when the Ishpeming Rock and Mineral Club members got to know Floyd and Helen Mortenson first hand as Floyd had become field trip chairman for the Michigan Mineralogical Societies Field Trip to the U.P. of Michigan. The meeting point was Markert's and that began 2½ days of field trips in the Ishpeming area.

Since that time Floyd has been a staunch supporter and member of the Ishpeming Club and has helped with many shows and both Field Trip Conventions.

The Club will miss Floyd as will the Midwest Federation of which he was a past president. The hobby itself will miss an avid and wise collector as his knowledge was passed on to everyone he came in contact with.

IRMC LIBRARY NOTES

How about reading a book this winter? The IRMC LIBRARY has the following books to loan to club members:

I. GENERAL INFORMATION

1. "How to Know the Rocks and Minerals" by Richard M. Pearl.
"An illustrated field guide to more than 125 important minerals and rocks." 192 pages.
2. "The Rock Book" by C.L. Fenton and M.A. Fenton. "Popular and authoritative book on rocks of the world." On loan to IRMC library by George Bell. 357 pages.
3. "Rocks and Minerals" by H.S. Zim and P.R. Schaffer. "A nicely illustrated, easily used identification guide for beginners." 160 pages.
4. "Rocks and Minerals of Michigan" by Department of Natural Resources and Hillsdale Publishing Company. "Information includes origin, location and basic uses of rocks and minerals found in Michigan." Donated to Library by Trudgeon's Done-Roamin Resort. 44 pages.
5. "The Story of Rocks and Minerals" by D.M. Seaman. "A guide for the young collectors." 100 pages.
6. "Mineral Recognition" by I. Vanders and P. Kerr. "Intended for the mineral collector or non-professional reader with some interest in mineralogy, this book provides an excellent introduction to the world of minerals and mineral science." 316 pages.

II. ENCYCLOPEDIAS and REFERENCE BOOKS

1. "The Collector's Encyclopedia of Rocks and Minerals" by A.F.L. Deeson. "Comprehensive encyclopedia of the world's rocks and minerals compiled specifically with the collector in mind." Donated to library by A. V. Mullaly in memory of Mrs. Tapola. 288 pages.
2. "Encyclopedia of Minerals" by W.L. Roberts, et al. "Provides chemical, physical, crystallographic, X-ray, optical and geographical data on over 2200 species. Included are nearly 1000 full color photographs. 693 pages.
3. "Dana's Textbook of Mineralogy" by Edward S. Dana. "Advanced technical reference considered as the ultimate authority by most mineralogists." 851 pages.
4. "Gemstone and Minerals Data Book" by J. Sinkankas. "A compilation in one volume of hard-to-find data, formulas, etc., for over 1000 mineral species." 346 pages.

III. AGATES

1. "The Agates of North America" published by Lapidary Journal. (soft cover)

.....next page.....

.....library notes.....

"A compilation of articles written by various authors and appearing in the Lapidary Journal magazines through 1966". 94 pages.

IV. CABACHONS

1. "A checklist of Cabachon Gem Materials and Their Lapidary Features" by J. L. Cunningham. (softcover; 2nd edition) "A practical, non-technical quick reference guide along with 23 photos of jewelry, cabs and slabs." 48 pages.

V. CRYSTALS

1. "Color Underground" by L. Boltin and J.S.White, Jr. "A picture book of mineral crystals to introduce the reader to the classification of crystals by symmetry." 60 pages.

VI. FLORESCENT MINERALS

1. "Ultraviolet Guide to Minerals" by S. Gleason. (soft cover) "A guide to collecting and identifying florescent minerals complete with mineral identification charts." 240 pages

VII. FOSSILS

1. "Tales Told by Fossils" by C. L. Fenton. "General information on fossils along with geologic time chart."
2. "Classification and Common Names of Fossils" by AFMS

VIII. GEMS

1. "Gem Cutting" by J. Sinkankas. "Packed with useful information and written in a style that is very easy to understand. It covers basic principles, methods, equipment and supplies that will help the amateur." 297 pages.
2. "Gems and Jewels" by Golden Press. "On making jewelry pieces of gem materials. Includes history of jewelry industry." 80 pages

IX. GEOLOGY

1. "Geology Made Simple" by W.H.Matthews, III. (soft cover) "A comprehensive course for self-study and review." 192 pages.
2. "Metamorphism of the Biwabik Iron Formation" by B.M. French. "Report describing changes in mineralogy and texture from unaltered taconite in the main Mesabi district to highly metamorphosed taconite in the eastern Mesabi district, Minnesota." Donated by Carlton Gutman. 103 pages
3. "Geology of Michigan" by J. Dorr, Jr. & D. Eschman. "Offers a very thorough story of Michigan geology." 476 pages.

X. TUMBLING

1. "Tumbling Gem Stones" by E.C. Gilman (soft cover) "Simplified methods and procedures of tumbling gem stones." 55 pages.

.....next page.....

.....library notes.....

2. Bulletins on tumbling. A pamphlet containing articles from MWF member clubs' bulletins on tumbling.

XI. JEWELRY

1. "Gold Wire Craft" by Tow. "Step-by-step instructions with how-to-do photos lets the reader begin creating his or her own jewelry from square gold wire. Shows what to do, what to use to make rings, pendants and all the other jewelry pieces."

MAGAZINES, PERIODICALS, REPRINTS, ETC.

I. MAGAZINES

Mineral Digest--Volumes I, II, III, IV and V

II. REPRINTS

Marquette County's Mining History--a reprint from the Mining Journal dated June 29, 1950 (courtesy of Vernon Miljour)

The Chemical and Physical Properties of Dollite (Femalium) from Shawnee Mission Gem and Mineral Society Bulletin

III. GENERAL INFORMATION

A brief Description of the Copper Country of Michigan by the White Pine Copper Company.

An Introduction to White Pine Copper Country

Ishpeming (Early History) published by Ishpeming Chamber of Commerce

IV. BIBLIOGRAPHIES

Bibliography of Earth Science Materials--MWF (soft cover) "A listing of books available on the earth sciences." 74 pages

IDENTIFICATION BADGES

At our first fall meeting many of you will wear. a new identification badge--and very showy it is with its fresh red and white color. Showy and new looking if you have been caring for it according to the instructions on the slip of paper that came with your badge. In case you lost the instructions ; read on--

AVOID scratching by rubbing and other abrasive movements such as carrying in pocket or purse with coins or keys.

AVOID bright sunlight.

AVOID cologne, perfume or hairspray. They will cause the color to "run" or "spot" if sprayed or dripped on the badges.

AVOID washing in the laundry. Some detergents and bleaches will ruin the color.

Treat the badge with care, as you would any fine quality product and it will retain it's original quality.

SPECTACULAR PYRITE FOUND

Two Tulip City members recently made the "find of a lifetime" or should I say several lifetimes. Hunting in an Indiana limestone quarry, Don Lake and Gordon Boone, along with eight other members of the Tulip City Gem and Mineral Club were being satisfied with some fair marcasite, when Don spotted a small opening near the wall, and the glimmer of pyrite within. The last blast had blown a small hill right in front of the wall and it was very difficult to move enough rock from this hill to adequately explore the opening--but a few hours later and with a few tons of rock thrown out of the way Don and Gordon uncovered the most fantastic vug of pyrite and marcasite to see daylight in some time.

There were ten club members there to help them in transporting and wrapping lesser pieces (weighting up to 40 lbs.). They had filled several boxes out of the hole when they finally realized that they had been lying on an enormous pyrite specimen which covered the entire floor of the cave.

Much more digging had to be done before they could even approximate the size of this huge specimen. A large section of rock was then broken up by Gordon so they could see if the pyrite could possibly be tackled in one piece. A pick was placed under the edge of the pyrite and wonder-of-wonders the entire piece was loose. Then came the struggle to draw the specimen out of the hole and up the incline where it could be slid down the 40 or more feet to the bottom of the quarry.

The six men from our club who were available had all they could do to accomplish this job but it was done with the help of a strong rope and a lot of sweat. All of the adjectives one could think of could be applied to the 400 lb. pyrite specimen sitting there in back of Don's car. Huge crystals stood out all over and the golden glint of "fools gold" was evident thru all of the oil and tar which enveloped it.

This super specimen will be on display for the first and last time at the Sept. 19 and 20th show. It will then be auctioned off to a museum somewhere--which is the only place that such a specimen should come to rest.

.....By Tulip City Gem and Mineral Club

A NEW MINERAL LIST via the AFMS Newsletter

A "List of Minerals Frequently Exhibited Competitively at Mineral and Gem Show, with Formulae from All Authorized References" by Dee and Don Belsher, has been published by the Colorado Mineral Society and is now available for \$2.00 by sending your order to Colorado Mineral Society, D. Scott Cooper, Editor, 4625 Fillmore St., Denver, Co. 80216.

The booklet contains over 200 minerals listed with their formulae and page number as they appear in Dana's Textbook, Dana's System of Mineralogy, Hey and Supplement and Fleisher's Glossary.

Dee and Don compiled this list to assist in their mineral judging and received so many requests for copies that it was getting out of hand. The Belshers graciously turned over the material to the Colorado Mineral Society for copyright and publication.

NATIONAL ROCKHOUND DIRECTORY

Notice has been received from P. R. Page, P.O. Box 1233, Gainesville, Florida 32602, that he is again preparing a Rockhound Directory. Any-one may send in to be listed. Information follows:

In the General Listings section, you may list your name, address and collecting interests at no cost to you. Please limit listing to 20 words--not counting address. Numbers and abbreviations are counted as words. Include information as to whether you wish to buy, sell or trade material. We do not list business names in this section but dealers may list as individual collectors. We will not accept listings that include prices for items listed. The purpose of the Directory is to provide a means for gem and mineral collectors to contact people with similar collecting interests. Below is a sample listing to show the format for this section.

Jones, Mrs. Betty, 1000 South Main St., Anywhere, Fla., 32000. Ph. 300-233-3000. Wish to buy, sell or trade agates and opals.

No listing will be accepted after Nov. 15, 1975. The Directory should be available in late January, 1976. Please do not order copies in advance of publication. Those listed will be notified when the Directory is available but will be under no obligation to purchase a copy. The price of the 1976 edition will be determined by costs of printing, etc. (The price was \$1.25 in '73 and \$1.50 in '74.)

Please type or print your listings so as to eliminate possible errors. We reserve the right to exclude any listing we feel does not fit the format or purpose of the Directory. (The Directory also includes listings of clubs and dealers.)

P.R. Page

16 CARAT DIAMOND IS FOUND

MURFREESBORO, ARK. (AP)-- W.W. Johnson of Amarillo, Texas found a 16 carat clear white diamond at the Crater of Diamons State Park Wednesday. The largest in the park's history, according to park officials.

A spokesman for the state Parks and Tourism Department said the diamond was somewhat larger than the STAR OF ARKANSAS which is valued at between \$80,000 and \$100,000. The spokesman did not know the exact value of the diamond Johnson found.

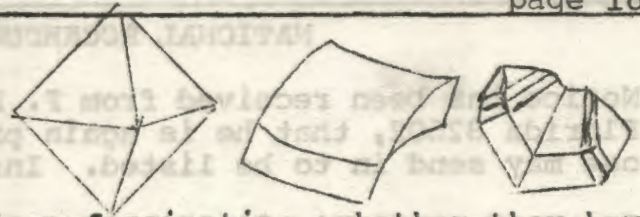
The Star of Arkansas was found by a Dallas housewife about 10 years ago, before the state took over operation of the park.

(By paying a small fee anyone can go to the park to hunt for diamonds. If you know what a diamond in the rough looks like and if you like to search and search, this place may be on your "must hunt here" list. What a thrill it would be to find your very own diamond!)

PEARLS THAT GROW ON TREES: Pearls formed by oysters or other mollusks are made of aragonite, a form of calcite (calcium carbonate). These are well known, but the most surprising pearls are those that grow on trees--cocoa palms. A coconut pearl occurs inside the nut when the usual three holes (including one open) are lacking. The embryo, unable to escape, forms a very valuable and highly esteemed pearl of the same carbonate of calcium.....via Michigan Lapidary Society Bulletin

CHARACTERISTICS OF GEMSTONES

-----Roger T. Simmons
(via.. The Geode)



Most people find the subject of gemology fascinating, whether they have any direct application for the information or not. Our study of how materials form in nature into minerals we see and the growth of crystals are subjects that still retain many facets of mystery.

The things which we have around us everywhere can be divided into two very broad classes, ORGANIC and INORGANIC. Organic, of course, includes those items in the plant and animal kingdoms including those gem materials such as pearl, coral, amber and jet. Inorganic, then, is confined to the mineral kingdom.

For our session this time let us only consider the natural mineral kingdom. Minerals, therefore, are natural inorganic products that possess a characteristic chemical composition and usually a definite crystal structure. Everything in our world is composed of one chemical element or a combination of elements (i.e., diamond is composed of carbon, a single element whereas most other gemstones are composed of combinations of elements). Metals usually are made up of a single element. Mineral species are classified according to their chemical composition and the arrangement of the atoms that comprise them. A mineral formed under favorable conditions results in a definite and characteristic internal structure (atoms of the elements that make up the mineral will have arranged themselves in an orderly fashion). This definite structure is known as CRYSTAL STRUCTURE or CRYSTALLINE STRUCTURE.

If, on the other hand, the elements do not form under reasonably favorable conditions, such as formation too rapid so as to not permit the atoms to arrange themselves into their orderly fashion, then we call the material AMORPHOUS (pronounced ah-MOR-fuss) meaning without form. (Amber, jet, glass and opal are amorphous.) "The difference in internal arrangements of atoms in any single plane in crystalline and amorphous materials might be likened to the difference between a battalion of soldiers at attention and a crowd of people standing in a field to watch a spectacle."(1)

Why all this talk about atoms and crystal structure? Gemologists as well as lapidarists have found that a direct relationship exists between the crystal structure and the important properties that lend beauty and durability to a gemstone. Also these properties are important in cutting and vital to the identification of gem materials. The cutter must know enough about the stone to be able to cut it to maximum advantage in terms of ultimate beauty the rough will yield. Knowledge of crystals and crystal structures lead to the correct orientation of cutting so as to obtain the best color for beauty and value of the gem material.

External reading from an encyclopedia concerning the atom is suggested here so you thoroughly understand the formation of crystals. However, I'll give a very brief idea of this formation process.

"The affinity of atoms of one element for atoms of other elements often results in a growing process, although not in the same sense that plants

and animals grow. Crystal growth may be likened to the growth of a mass of tiny iron filings attracted to a magnet. It can be better described as the attraction of like atoms forming layer upon layer from the center outward producing a definite geometric form. This growth results in a crystal form with faces so symmetrically placed and so smooth and highly reflective that it creates doubt on the part of an inexperienced observer that they have not been fashioned by man. Crystals are among the most unusual objects in nature, since they do seem to have this growth characteristic even though they are inorganic and have no life. Each crystal attracts the same kind of materials of which it is composed and arranges them with a fantastic accuracy in specific positions and holds or locks each atom into place. Almost every compound that forms in nature takes on a crystal structure as it accumulates. It is rare to encounter inorganic materials in nature without a definite internal structure, such as glass and opal. They are exceptions rather than the rule." (2)

Hence, the physical properties of a gem material, such as cleavage, hardness, and toughness depends on the internal structure. These items vary as the arrangement of the internal particles vary. Each mineral species has a characteristic pattern of its own that results in like external forms or crystal shapes.

Now I know some of you are thinking that if he said everything forms into a characteristic crystal pattern, then why can't I see the structure or outward appearance of crystals in all my gem materials? CRYSTALLINE is the answer. Often a crystalline structure does not result in a definite geometric external form that is recognizable to the eye--such material although, has an internal crystalline structure, appears to the unaided eye as a MASSIVE form, more or less a shapeless mass. This is most commonly encountered when the position in which the mineral grew was confined by other growing crystals (ex- crystalline quartz; variety chalcedony).

"It is obvious that, scientifically, the term crystal means WITH orderly internal structure, whereas the term glass means WITHOUT orderly internal structure. It is correct to refer to an amethyst necklace as being crystal, but a manufactured glass replica of a rough diamond crystal is not crystal. It is clear from this that fine lead glassware is incorrectly called "crystal." Certain naturally occurring substances possessing neither orderly arrangement of atoms nor constant chemical formulae, such as obsidian, are known as NATURAL GLASSES." (3)

Terms we should become familiar with to best describe materials based on their appearance to the unaided eye since crystalline materials occur in the natural in several different forms are as follows:

- A. Crystals: Crystals are substances that possess a crystal structure and are wholly or partly bounded by natural, plane surfaces.
- B. Twin Crystals: Sometimes two crystals, or two parts of the same crystal, are joined together along a common axis, or plane. Such a formation is called a TWIN CRYSTAL.
- C. Crystal Aggregates, or Groups: Each crystal in the group is large enough to be seen easily and is more or less perfect. A group of such

.....

crystals thus grown together is known as a CRYSTAL AGGREGATE or a CRYSTAL GROUP.

D. Crystalline Aggregates: Crystalline aggregates are composed of many very small individual crystals, often too small to be seen by the unaided eye. Metals such as gold and silver in their native state, as alloys, and even when rolled and shaped for use in jewelry, are CRYSTALLINE AGGREGATES.

E. Cryptocrystalline Aggregates: These are aggregates of crystals so tiny that even high magnification fails to resolve them. Their presence is proved by their effect on polarized light. Agate, carnelian and other varieties of chalcedony are examples.

F. Distorted Crystals: These seldom approach perfection in their shapes but are more or less distorted, since their faces have not all enjoyed an exactly equal and perfect development. Probably, faces develop unequally due to their relationship to the source of supply of the solutions carrying the atoms of which they are composed. Growing in confined spaces, as most crystals do, some faces, or sides, are likely to grow faster than others. Such crystals may appear to be drawn out, shortened or flattened, but the corresponding angles between faces are constant.

G. Deformed Crystals: These have been bent and twisted out of their normal shape, usually by some later deforming force, so that the corresponding angles between faces may differ widely. This, however, is not a common occurrence.

H. Pseudomorphs (from PSEUDO, meaning FALSE, and MORPH, meaning FORM): After the original growth, if the chemical composition or the structure of a crystal becomes altered without modifying or destroying its original faces, the result is a crystal whose faces are unchanged but whose internal structure has become that of an entirely different mineral. The resulting crystal is known as a PSEUDOMORPH (pronounced SUE-doe-morf). Tiger's-eye is an excellent example. In this mineral the original fibers, consisting of monoclinic crystals of crocidolite (pronounced kro-SID-oh-lite), or blue asbestos, have been replaced by minute grains of quartz that, in mass, have retained the original external crystal structure for quartz.

I. Crystal Axes: To describe a crystal form it is necessary to visualize the existence of certain fixed lines of reference, similar to the imaginary line, or axis, from the north to the south pole about which the earth rotates. In an ideal crystal form these lines are of definite length in relation to each other, extend in certain definite directions, and intersect in the middle of the crystal at a point called the ORIGIN. Such imaginary lines are called CRYSTAL AXES (the plural of axis). There must be at least three axes to describe a crystal, and in one case four are necessary. These are indicated in the pictures of models of the Six Crystal Systems found in many books.

J. Crystal Systems: For convenience of study and reference, crystals are divided into six great systems, described by the comparative length and angular relation of their crystallographic axes.

.....

J.1. Cubic (or Isometric) System: A mineral is placed in the cubic system if it can be described by three axes of equal length at right angles to one another. In a cube, if axes were passed from the center of each face to the center of the opposite face, the axes would be equal in length and at right angles to one another. Diamond, spinel and garnet crystallize in the cubic system.

J.2. Hexagonal System (pronounced hex-AG-uh-nul): Hexagonal crystals have four axes, three of which are equal in length and intersect at 60 degree angles. The fourth is perpendicular to these and longer or shorter than the three previously described axes. Ruby, sapphire, emerald and aquamarine crystallize in this system.

J. 3. Tetragonal System (pronounced teh-TRAG-uh-nul): The tetragonal system is one in which there are three axes that intersect at right angles, but only two of which are equal in length, the third being either longer or shorter than the first two. The basic form resembles a cube elongated in one direction. Zircon crystallizes in this system.

J. 4. Orthorhombic System (pronounced or-tho-ROM-bik): This system is characterized by three mutually perpendicular axes of unequal length. The basic form resembles a box with length, width and depth unequal. Topaz crystallizes in this system.

J. 5. Monoclinic System (pronounced mon-oh-KLIN-ik): The three axes in this system are unequal, two intersect at an angle other than at right angles, and a third is perpendicular to these two. The basic form can be visualized as a box deformed so that the top is still rectangular but one side view is a parallelogram. Jadeite and nephrite crystallize in this system.

J. 6. Triclinic System (pronounced try-KLIN-ik): The triclinic system is the one of least symmetry. It is described by three axes, all unequal in length, and inclined to one another at angles other than 90 degrees. A basic form would resemble a box deformed so that all sides are parallelograms. Labradorite and microcline feldspars crystallize in this system.

Within each crystal system there are many different shapes that crystals can take; each basic shape is called a CRYSTAL FORM. The form or combination of forms most commonly taken by crystals or a given gem mineral is known as the HABIT of that mineral. For example, the habit of garnet is the DODECAHEDRON (pronounced doe-dek-uh-HEE-drun); of Zircon, a prism modified by a pointed form called a BIPYRAMID, etc. For reasons related to the conditions during growth, crystals of the same mineral may take different forms or combinations of forms. For example, ruby and sapphire, varieties of the same gem species, usually occur in crystals with different shapes.

NOTES: GIA, COLORED STONES, copyrighted 1964, Gemological Institute of America, Los Angeles, California.

(1) Chapter 2, page 2, (2) Chapter 2, page 3 and (3) Chapter 2 page 5.

"The only exercise some people get is jumping to conclusions, running down friends, sidestepping responsibility and pushing their luck."
via--Rock Dust

SHOP HINTS:

Do you have the problem of pails of oil sitting around waiting to settle out? While on holidays this year I was talking to a dealer in Kalispel, Montana. She asked me how I cleared my oil, and then showed me something I found hard to believe.

When she drained the oil from her saw, she poured it into a brown paper grocery bag. I came home and tried this and found the job was done a lot quicker and a lot cleaner. It takes only 24 hours to strain the oil from a 14" saw, and when you are finished, all the clean-up you have to do is throw away the brown paper bag in the garbage.

(By--Laverne Willoughby from Fossil Trails via Magma)

Try "Almag" or Corvinus" oil sold by Texaco in bulk-- a straight mineral oil with the viscosity for lubricating and cooling. (Gemrock)

FLASH***** Due to rains and resulting flooding, Scott and Donna's Rock Shop in Maryland was inundated!! The shop had only been open for business for about a month. Now they have all the clean up, etc., to do before they can open again. But the family is safe and they still have the shop and its contents; so there is still much to be thankful for.

THIRD CLASS

Return Postage guaranteed

3rd issue, 1975

JASPILITE

Ishpeming Rock and Mineral Club, Inc.

Laurence and Olive Sain, editors

818 West Kaye Avenue

Marquette, Michigan 49855

Mr & Mrs. C. R. Markert

R-1 Box 620

Ishpeming, Michigan

49849