



THE JASPILITE

Affiliated with the Midwest Federation of Mineralogical & Geological Societies

Business Meetings: 1st Fri. of Month. 7 PM--Jacobetti Veterans Facility
425 Fisher Street, Marquette, Michigan

Program & Activity: 3rd Sun. of Month. 2 PM Marquette Township Hall, West of
Marquette, Michigan

When you get the Jaspilite, summer will be reaching the halfway point. What a thought!! We wait for summer to come to get outside and enjoy one's self. Then before you know it it's half over. We look back to see if we have accomplished all those plans that were made last winter, and most of the time we haven't even come close. Hopefully you are better than I am and have enjoyed the great outdoors and checked many items on your 'to do' list.

When you are out, enjoying yourself on the rock piles, beaches or wherever and if you have the chance, share your knowledge and interest and understanding of the rocks and minerals around you with people you meet. In that way we all gain a little, as people become more understanding of the world around us.

With the SWAP only a month and a half away; to make it a success, we need everyone's help and input. To me the SWAP is not work, it has become a time to renew old friendships and make new ones, and to see what other people have done since the last time you saw them. To me it is an enjoyable day.

If you haven't volunteered for a job; please do so. You'll enjoy the fellowship. Everyone is needed to work shifts during the day and evening.

Don't forget the field trips this summer. Bruce has some good ones lined up.
Ernie Johnson, president

Highlights from the minutes of the secretary.....Dawne Smail

Markerts have again invited us to their home on the Dead River Basin to share a hobo picnic. This will be our business meeting also, September 6.

Super Saturday at the Marquette High School to acquaint the youth with a variety of hobbies and careers was attended to by Al Murray and Carl Berger. They met enthusiastic groups and gave 2 sessions where they spoke and answered questions about the IRMC and collecting. Books, tools, machines, rocks and minerals were displayed, with samples being handed out. Hopefully some make become future rockhounds.

Macfallite and Orientite, rare minerals, were introduced to us by Ingrid Bartelli. These can be found in the copper country and are excellent micro specimens. The Manganese Mine has Macfallite, and is a half mile walk beyond the Clark Mine. A trip to the Copper Country is always a pleasure and exploring for specimens a joy.

Our April silent auction was lively and we had many beautiful specimens, materials and plants on which to bid.

We contacted all 35 clubs in Michigan to ask support for our resolution for Hematite and Copper to be named Michigan's minerals. No state thus far has 2 minerals but Montana and Nevada each have 2 gems.

Sample boxes for youth and other beginners are being made up for the Swap in August.

Swap plans are set and we look forward to August 10 at the Ely Township Hall to meet all our old friends and to make new friends. Sunday afternoon will be a field trip. We have many beautiful raffle prizes again. Burt Boyum, retired Public Relations representative for Cleveland Cliffs and author of several books on iron mining will be the speaker at the Cracker Barrel meeting on the evening of the swap.

Bob Markert gave an update on the Iron Town display, Kegaunee School display and the Ishpeming Park Museum.

A visit to Paradise!!!!!!!!!!!! We went to the Copper Country for a week!!!!!!!!!!!!

We decided to spend the week before Memorial day at the Hancock City Campgrounds with several other club members and picked ideal weather. Hot, then cool, then hot while we spent a day at 5 mile point and the Tamarack Water works, looking for agates. The lake was fairly calm and we turned over a lot of stones and found a few nice agates. The sun was hot and we were relaxed after lunch so while Teresa and Pat Bemis and Lowell worked the shore, Dixie and I dozed on the warm pebbles. Listening to the gentle waves, gulls, ducks, ravens and other birds quieted my soul, and needed no recorded tape to do this, I enjoyed the REAL THING.

We spent our first day at Jacobsville and gathered some of the red sandstone on the shore, that had been tumbled by the Big Lady, Lake Superior. Patterns of white and red are such a contrast and we had to remember we couldn't carry away the cliff. It's a 30 mile drive around the bay to get there but the scenery is lovely and the stone worth it. Residents take boats to go to work and avoid the long drive.

The rock piles of crushed rock at the old Calumet dumpsite yielded some nice copper pieces, though the wind was cold and fog rolled over us for awhile.

Flocks of gulls and crows are finding slim pickings now the landfill laws are changed. We visited the Estivant Pines at last, with the Club members and hiked into the area. The walkways of boards, the trails, flowers, and towering trees were food for my soul. I hugged one of the giants and came away grateful that these lovely old living things were spared so we could experience a day such as this.

The drive up to the cliff at the Cliff Mine site was it's usual difficulty, but Dave Olson got to admire the view for the first time. I found some thomsonite crystals patterned across a rock that had been smacked and discarded. Curious that such beauty isn't appreciated by everyone. Then, an interesting sheet of copper resting on some basalt, waiting just for me.

A stop at the Laurium Mine was my high for the day. I found KINOITE!!!!!!!. Again, someone smacked a rock and left the calcite, but we were looking for it and when I caught the incredible blue crystals in my loupe, I let out a yell of triumph that was heard in Ishpeming, I'm sure. We carry a microscope in the trailer to be able to enjoy just such treasures, and these crystals are my "find of the summer".

The fellowship we share with our friends is another of the gems we enjoy and treasure. Truly a visit in Paradise.Dawne, Lowell and Dixie Smail

What am I seeing?.....Ingrid Bartelli

What you see when you look is determined by many factors but a whole new world is exposed when you look through a microscope. When looking at crystals, the first response is oooh and aaaah, gorgeous, beautiful, unbelievable!!

The IRMC's micro-mineral study group has spent one evening each week the past 4 months oooooing and aaahing over our discoveries.

Most of us notice the color of the specimen first when we look---the blue greens of the copper minerals, the black and golds of the iron minerals. It's hard to believe the splendid spectrum of colors revealed by a microscope in the tiny holes in rocks.

Often the combination of colors from several minerals in the same vug is most pleasing--the pale green stellate crystals of pumpellyite perched on pink feldspar minerals, the sparkle of silver on copper or the shiny black rosettes of hematite on white dolomite.

The form, shape and sizes of the various crystals is overwhelming. A zoom lens on a scope helps you see the tiniest ones.

The associations of the minerals makes us think of kids who hangout with their special friends in their favorite surroundings.

This past year we had a new member in our study group--Al Murray Jr. (he's far more knowledgeable about minerals than any of the rest of us). When he explored a vug under the scope he saw such things as "a twinning plane at 91⁰, a combination of a cube and a dodecahedron or diploid form on pyrite".

All of the things we see make us wonder WHAT we are looking at. Even if we never learn what the name of the mineral is, the joy of seeing the colors, shapes, sizes and associations is well worth the investment in a scope if you can afford one.

And now the good news-- several more members of the IRMC are becoming interested in investing in a microscope! Maybe by the time we meet again in January as a study group they, too can wonder, "What is this beautiful creation I'm looking at?" And who knows maybe someday we'll learn what we're looking at and, ultimately, learn how to photograph what we're seeing.

Scholarship report for 1991.....L.W. Sain

A letter to the Geography and Earth Science Department at Northern Michigan University and Michigan Technological University asking for the name of an upperclass student to receive a IRMC scholarship for 1991 was sent out in early May. NMU awards committee chairman, Sten Taube of the Department of Geography, Earth Science, Conservation and Planning sent a letter to me saying that they recommend Michael C. Jurmu to receive the scholarship. He is an Earth Science and Secondary Education major. His current grade point average is 3.66.

A follow up letter has been sent to MTU.

We welcome the following new members to the IRMC and invite them to actively join in meetings, field trips and in learning about rocks and minerals. Rock cutting and polishing, faceting, and much more is available if you are interested in learning from and with club members.

Gregory and Mary Jane Johnson	115 E. College, Marquette, Mi.	49855	Tele- 228-9821
Ron Larson and son-Jesse	Box 256 Little Lake,	Mi. 49833	346-3942
Susan Riehl	226 Elm St., Gwinn,	Mi. 49841	346-9487
Tammi Olson	331 Fisher, Apt.1. Mqt.	Mi. 49855	226-3941

Hosts and HostessesBusiness meetings

June 7.....Alan Korby	Oct. 4.....Smails
July 12.....Leon Anderson	Nov. 1.....Pat Proconier
Aug. 2.....Ernie Johnson	Dec.....Jan Ruonavaara

Sept. 6.....cook out at Markerts. Bring what you want to cook, a dish to pass and your table service. Call Markerts for further details.

FALSE FOSSILS: Dendrites are perhaps the most common geologic oddity which resembles a fern frond or colony of algae. The term "dendritic" refers to a branching figure resembling a fern frond, branch, or tree. They are usually formed in thin hardbedded shales and limestones. Concentrations of the manganese mineral called pyrolusite (black manganese oxide)

percolated into the cracks and fissures of shale and limestone, leaving behind a residue which forms the dendritic pattern.....from...The Michigan Gem News.

CALENDAR OF ACTIVITIES and EVENTS

- June 16.....Field trip led by Arnold Mulzer sites in Dickinson County. Meet at the Courthouse in Marquette at 9 am or at Snyder Drugs west of Ishpeming about 9:20 am. Take picks and light and heavy duty hammers, boxes and bags, insect repellent and camera. Lunch stop will be in Felch at a special restaurant or carry a picnic lunch. Picture taking stop at Steinbreckers.
- July 3-6.... Mich Tech University's Red Metal Retreat, Houghton, Mi. Write "Mich Tech Univ., Public Service Development, Kathi Abata, 1400 Townsend Drive, Houghton, Mi. 49931-1295" for information and registration form.
- July 12-13.....Stonehead Lapidary and Mineral Show. Mineral River Plaza, White Pine, Mi.
- July 21.....IRMC field trip to Goose Lake for quartz crystals. Leaders--Bob and Marian Markert. Call them for details.
- Aug 10.....IRMC Swap, Ely Township Hall.
- Aug. 11.....IRMC field trip at 1 pm. Sign up at the swap.
- Mid August.....Canadian tour in the preplanning stage for those who are equipped to travel for two weeks.
- Aug 18.....Local field trip if the Canadian tour doesn't materialize. Call Bruce for info.
- Aug 30-Sept 1.....Midwest Federation Show. Century Center, South Bend, Indiana.
- Sept 29 or Oct 6.....One or the other are possible dates for the color tour. Details later.

LAKE SUPERIOR AGATE.....Larry Green (The Prospector)

Lake Superior agates were formed in a range of mountains in Canada. The theory is that they were formed in gas pockets in volcanic basalt by the deposition from silica rich liquids. Because of changing conditions over time, they were layered in color and in forming quartz xls, or agates. These alternating bands form the characteristic pleasing pattern.

Glaciers from further north freed the agates and carried them south throughout several states and over hundreds of miles. The glaciers were called "Lake Superior Drift," hence the agate name. Because of the glaciers, most are found only as fragments. Unbroken ones have a smooth glassy surface and pock-marked appearance. Most range from less than 1 inch to 3/4 lb. Anything over 1/2 lb. is rare and anything over 2 lbs., very rare.

Saganite agates occurred when a cluster of crystals formed as a cluster or single crystals of varying sizes and the cavity was then filled with agate to surround the crystals.

Tube agates were formed when there was no liquid circulation occurring. Seepage formed agate stalagmites as in a cave. Then the cavity was filled with agate as in saganite types.

Water level agates were formed by liquid seeping into a cavity and forming level strata. Layer after layer was built up in this manner until the cavity was filled. Often, circulation started later and fortification agate was formed on top of the layer agate.

Eye agate, not plentiful by any means usually appears on the surface like a saucer or half ball. They may have formed as beads on the cavity walls. Later, circulating agate filled the cavity.

Jasp-agates are usually opaque with agate patterns mixed in. Many have patches of black hematite or plum-like patterns. They are quite solid.

Moss agates are found also and often are larger than other types.

Rare types include plume agate, agate in agate, agate with amethyst center, radiating tube agate, shadow agate, rain agate, faulted agate and geode agate.

Every type can be hunted in any spot. Gravel pits are the prime location but river beds, gravel roads, newly graded roads, and farmers' fields also are good.

PROF. PABIAN REFINES AND POLISHES WAVE THEORY OF AGATE FORMATION__ (Rockpile staff)

Though agreement abounds that a cut and polished agate is a beautiful thing, no similar agreement exists among mineralogists about the way agates were formed in nature.

And now, Prof. Roger Pabian of the U. of Nebraska-Lincoln and the Nebraska Geological Survey is heating up the controversy surrounding the humble agate even more with the publication of his latest agate research, a summary of which he presented in a slide/lecture program at a meeting of the Midwest Mineralogical and Lapidary Society of Dearborn.

Prof. Pabian, a widely known paleontologist, mineralogist and a long-time rockhound, with many publications to his credit, entered the agate controversy when his review of the recent scientific literature revealed and expository muddiness which did not agree with his understanding of the early agate studies or his own examination of agates. For example, he found inaccuracies in the citations of the 1915 agate work by German mineralogist R. E. Liesegang to suggest that either his work had not actually been read or their interpretation of the German language work (translated) had thrown them a curve.

Although Pabian briefly reviewed the history of agate collecting, the world's significant collecting areas, and in passing highlighted the Lake Superior agate found in Michigan, Minnesota, Wisconsin, Iowa, Illinois and Missouri and formed 600 million to 1.2 billion years ago, the primary focus of his presentation was to describe and identify the structural elements common to all agate nodules and to interpret(hypothesize) the process by which they were formed.

He postulated that " a self-propagating reaction in which electrochemical waves induced within an enclosed gelatinous solution produced the banding and spherulitic(radiating) structures found within agates. Such reactions are believed to have occurred more or less instantaneously as a singular event."

A competing theory hypothesizes that the bandings within agates were formed by successive silica solutions flowing through rock cavities and depositing layers of chalcedony over time. Both of the above theories have their adherents, but judging by Pabian's tight logic and meticulous analysis, the "electrochemical wave" theory may soon become the dominant one.

VINEGAR.....Pegmatite..via..M.M.S. Conglomerate

The next time you go camping be sure to take along the vinegar. Don't be surprised when you are ready to go and your wife says "Just a minute, I have to put on my vinegar." She has just found out that vinegar is more effective than hand lotion. When the cook tent or camper smells of frying fish, or a screw head refuses to move, or you wake up with a raspy throat, bug bites drive you half crazy with itching, just reach for that vinegar bottle.

Vinegar has long been a seasoning, preservative, cleanser, purifier and healing agent. There are more than forty non-culinary uses for vinegar, but it is often overlooked or replaced by over-advertised products that cost more and are much less effective.

If you can't budge a corroded screw, soak it in vinegar for a few minutes. It also loosens rusty bolts and hinges. After you have fried fish, pour a little vinegar in the hot frying pan and the fish smell will fade away. When washing dishes, add a little vinegar to the soapy water, it helps cut the grease.

To relieve the pain of minor burns apply cold cider vinegar....for sunburn pat it on gently. To decrease dandruff, rinse your hair with a mixture of 1/4 cup cider vinegar and 3/4 c. water. Applied full strength, vinegar not only helps repel insects but eases the sting and itch of bites.

Cheese will stay soft and moist and free of mold if wrapped in a cloth sprinkled with vinegar. Also vinegar removes stains....add a cup to the wash water. A dog's pelt will be glossy if you add a few drops to the drinking water. Unclog a stopped up sink by putting 3 c. of boiling vinegar down the drain.

COPPER.....The Michigan Gem News

Did you know that crude copper is usually refined before it is marketed? there are two reasons: (1). The crude copper contains appreciable amounts of silver and gold. The value of these metals, when recovered, is enough to pay for the cost of refining. (2). Copper is largely used for electrical conductors and a very small amount of impurities increases the electrical resistance. Brass is an alloy of copper and zinc. While bronze contains copper and tin, sometimes it includes zinc. German silver contains copper, zinc, and nickel. All of our coins contain some copper. The penny has as high as 95%. Both silver and gold coins contain 10% copper to increase the hardness. Some silver and gold jewelry contain copper for the same reason.

OFFICIAL PUBLICATION OF THE ISHPEMING ROCK & MINERAL CLUB
IRMC OFFICERS FOR 1991

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Membership Chairman--2nd V.P.	The club is open to anyone interested in the Earth Sciences.			
Iniation fee--\$1.50.	Annual membership dues: Husband & Wife--\$3.00, Adult--\$2.00, Jr.--\$1.00			

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 and Marian Markert



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