



CENTRAL MICHIGAN ROCKHOUND NEWS



VOL. II

MAY 1958

NO. V

"CENTRAL MICHIGAN LAPIDARY & MINERAL SOCIETY"

AFFILIATED WITH THE MIDWEST FEDERATION

MEETING PLACE: EAST LANSING'S NEW HIGH SCHOOL, ROOM A132

THIRD THURSDAY OF EACH MONTH EXCEPT JULY & AUGUST

DUES: \$2.00 ANNUALLY. STUDENTS UNDER 18 YRS. OF AGE: \$1.00 ANNUALLY

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FROM THE PRESIDENT'S ROCK SACK

Our May 15 meeting will be the the first anniversary of the founding of the Central Michigan Lapidary and Mineral Society. We hope to make this meeting something special. First of all, it is to be "Brag Night." We are asking that each member bring at least one or two of his choicest specimens to show off to the other members. Please have a card made out identifying the specimen, where it came from, and the owner's name. From amongst these specimens we hope to be able to select some to take to make up our club display at the Midwest convention in June.

Besides we are making this "grab-bag" night. Will each member bring a carefully wrapped rock or specimen, worth at least 50¢, to put into the 'grab bag?' These are then to be sold grab-bag style, at 25¢ a grab, the proceeds to go to the Club treasury. Don't forget to bring along both the rock and the 25 cents.

Also we are to hear a talk by Mr. Ed Hayes, who will tell us about diamonds accompanied with slides.

After all this - refreshments! I predict a full house and an interesting evening.

Coming soon will be a field trip to the Pugh quarry at Weston Ohio. This should be a most interesting and rewarding trip and I hope that a great many of you can arrange to go. On our trip there last year I believe everyone got good specimens of pyrite and double terminated calcite crystals, I understand there is some possibility of finding fluorite crystals there also. I would suggest that if any of the younger children go on this trip, the parents should accompany them to look after them and be responsible for them, since there is always some danger of falling rock in a big quarry like this.

Plans are shaping up for some of us going to the Midwest convention at Downers Grove in June, and for making up a display of specimens from our club members. All of the advertising points toward a most interesting and worth while convention, with dealer displays of specimens and lapidary equipment, with Club displays of mineral, cabochons, crystals, gems, and other specimens of their lapidary work, and there are to be field trips and lectures on all phases of our hobby. Any one who can get away for part or all of the convention will enjoy it I am sure. There are motel accommodations available as well as a camp ground area in case you have a trailer or want to tent out.

Three families, the Kirkbys, the Gaschis and the Dreps are planning to make the collecting trip into Canada in the Bancroft area, leaving about June 25, and staying for a week or ten days or as long as they can. We have seen samples of from 25 to 30 different minerals, some of them fluorescent, that can be found in this area and we are anticipating a good trip. If any other families can arrange to join the trip, please get in touch with one of us.

Looking forward to Fall, I wonder if we should not be thinking of organizing a Junior Rock Club for members under 12 years old? We have a growing number of 'Pebble Pups,' and at present our club is organized and operated with, chiefly, the interest of adults in mind. We are not doing anything particularly for these younger members and they certainly should be encouraged. A separate junior group might allow more interesting meetings for both adults and juniors. Let's all give it some thought.

David Gillett had a birthday on May 3. When given a choice of a birthday party, or a rock trip to Bellview, he chose the field trip, - (that's the true rock-hound spirit, so may his tail always wag.)

I hope to see you all at the next meeting. Happy hunting.

Joe D. Kreps
President

AMENDMENT TO THE CONSTITUTION

The Board took action at the April Board meeting to submit to the Society the following amendment to the Constitution at the May meeting pertaining to the constitution at the May meeting pertaining to Article III section 2(B).

"No person below the age of 12 yrs. shall be admitted as a member unless a parent joins and accompanies them to all Society activities."

The Society loves their pebble pups but so many of the 7 to 11 year old children are wanting to join without their parents that we could foresee, possibly difficultly. In the first place we don't have a program geared to the small children. Discipline might be a problem and there is possible danger at the quarries. We also believe they will learn more about rocks if their parents are interested too.

The Board feels that in fairness to all the members, this amendment should be added to the constitution.

ONE-TIEM WESTERN PROSPECTOR SPEAKS TO CLUB

Mr. Ray McCurley, a former western prospector, spoke at the last club meeting telling about some of his experiences and finds. He also brought along some of the specimens which he found while prospecting.

CLUB TAKES THREE FIELD TRIPS

On Sunday, April 20th, the club took a field trip to a gravel pit near Muir. The more than eighty people that attended found jasper, fossils, a few Petoskey stones, several agates, and various other stones.

On Saturday, April 26th, about thirty club members visited the rock and mineral collection in the Natural Science Building at the University of Michigan. Members making the trip said the collection was very extensive and attractive.

On Sunday, May 4th, the club went on another field trip, this time to the limestone quarry at Bellevue. About thirty members attended this trip. Specimens of calcite, marcasite and fossils were found.

ANOTHER FIELD TRIP TO PUGH QUARRY

The club has another field trip planned to one of the best collecting areas around, Pugh Limestone Quarry near Weston, Ohio, for Sunday, May 18th. On the 1st trip to the quarry excellent specimens of calcite crystals, (some of which were double-terminated and up to three inches long) barite, domolite, a dozen trilobites (rare fossils) which were about an inch long) and many other fossils were found. There was also some fluorite found.

Meet at the Ingham county court house in Mason at 8:00 AM sharp. If you need a ride or have any questions call Percy Gibbs, Arthur Kraves or Cliff Prevey. For directions to the quarry, see the map on the last page.

We will have a Bohemian dinner. Bring your own table service, your own sandwiches, one or two dishes to pass, according to the size of your family, and milk for your children. Coffee, cream and sugar will be furnished by the club. Hot dishes should be wrapped in foil and several thicknesses of newspaper, preferably in dishes that can be set on the stove. You can bring camp stools if you like. Be sure to bring drinking water.

MICHIGAN CONSERVATION LAPIDARY AND MINERAL T V PROGRAM (OUR OWN CLARENCE KIRKBY)

The Michigan Conservation Dept. is featuring a television show, "The Lapidary" on its weekly TV program, "Michigan Conservation."

The program is designed to show the Lapidary opportunities in our own state. Chuck Floyd, producer of the TV program, and Robert Kelley, research geologist, have worked hard to compile the material for the program.

The Conservation Dept. has compiled a free booklet, "Mineralogical Guide," which contains a list of clubs, museums, publications, and specimen and gem locations in Michigan. (Send to Chuck Floyd, Michigan Conservation Dept., Sansing 26, Michigan for your copy of the Mineralogical Guide.* They also have a list of the dealers which is available only to museums, clubs and dealers.

You may have missed two of the local programs plus Cadillac and Bay City on 'The Lapidary', but you can tune in on future programs in other cities. The list is as follows. - See next page -

Date	Station	Channel	City	Day	Time
5/17	CJIC-TV	2	Sault Ste. Marie	Sat.	11:45 A.M.
5/17	WJBK-TV	2	Detroit	Sat.	8:30 A.M.
5/17	DMJ-TV	6	Marquette	Sat.	6:15 P.M.
5/18	PBM-TV	7	Traverse City	Sun.	5:30 P.M.
5/22	WRNX-TV	57	Saginaw	Thurs.	7:15 P.M.
5/23	TVS-TV	56	Detroit	Fri.	5:15 P.M.

HOW THE CLUB WAS FORMED

BY GLADYS KIRKBY

The Central Michigan Lapidary and Mineral Society is one year old this month. It has grown by leaps and bounds. We now have 110 members.

After I joined the Craft and Hobby Guild to help Roger sell his jewelry and mineral specimens, we found so many people that were interested in rocks that we decided to take their names and form a club.

Our sister in law, Ruth Kirkby, a national lecturer, said she would come and give a talk to our club. As we didn't have the club formed yet, we decided to send out cards for the lecture to the names we had taken. We had a very good turnout.

At that lecture we talked over the formation of the club and decided on a meeting date. We acquired a meeting place and sent out cards for our first meeting.

At succeeding Hobby shows we found more members. Our club also had a beautiful display of Minerals at last November's Craft & Hobby show, that created a lot of interest and signed up new members.

Lets all get behind our club and make it more interesting to all. We need articles from more members to improve our monthly bulletin. Our April bulletin is to be judged at the Midwest Federation show.

DON'T GIVE UP THE SHIP

BY MINA COTTON

In polishing certain gem materials, it is almost impossible to get a high glossy polish. A gem cutter may take a polished agate cabochon and match it alongside a polished jade cabochon. Invariably the jade will show an inferior polish. This is to be expected, for it is impossible to give jade a glossy finish equal to that of a harder gem like agate. Jade is tough, much tougher than agate, but in hardness it is inferior to that of agate. The ability of any gem material to take a high glossy polish is an inherent physical property of the material, and this can not be changed or altered by any known lapidary polishing method. Obsidian also has an inferior hardness to that of agate, so it can never be polished with the same degree of high glossy finish. The finest, high glossy polish we may see anywhere, will be on the diamond, the hardest of all gem materials.

The length of time required to saw and polish diamond is considerably more than required of other gem stones. For example, it requires approximately 20 hours to saw through a two carat rough diamond, using a 3-inch diameter bronze saw blade charged with diamond. Saws for this operation are run at about 6,000 rpm. and kept well supplied with a coolant. The final polishing of a 2 carat diamond will require about 8 hours continuous

work. Once in a while a diamond will be encountered that will defy all polishing efforts. Some years ago in Amsterdam a diamond-cutting firm had a stone of this type which weighed several carats. After six months of effort in polishing, the job was given up as hopeless.

THE FORMATION OF ROCKS

BY WEE ILLEY

Igneous rocks

Igneous rocks are formed by the solidification of molten rock materials. These rocks vary a great deal in their crystalline structure and in their composition. First the variation in composition will be discussed and then the difference in crystalline structure.

The molten rock materials in general that form igneous rocks are usually composed of feldspar, quartz, and one or more of the ferromagnesian minerals. The former two minerals are light in color and the latter minerals are dark in color. A great variation in composition and thus much variation in color is present. If a rock consisted principally of quartz and feldspar, the rock would be light in color, or if it contained for instance mainly feldspar and one of the ferromagnesian minerals, in approximately equal proportions, the rock would be moderately colored, and if a rock consisted principally of the ferromagnesian minerals, it would be dark in color. Thus, rocks can vary from one extreme to the other by differences in their constituents.

Igneous rocks may either cool on the surface of the earth, such as lava from a volcano which cools, or it may cool beneath the surface of the earth like magma which is forced into the cracks of rocks and cools. The igneous rocks that are extruded from the earth are called extrusive rocks; those that cool below the surface are called intrusive rocks. Intrusive rocks are generally coarsely crystalline whereas extrusive are fine-grained.

A good analogy of the two crystalline structures may be obtained in the following way: suppose that in two different pans some sugar is melted. One pan is cooled extremely slow while the other is being stirred as it cools quickly. If the crystalline structure of the sugar in both pans are examined, one finds that the sugar which cooled slowly is of a coarsely crystalline structure, the sugar that cooled quickly is fine-grained.

Extrusive rock can be compared with the sugar that cooled quickly. The cooling of the lava which formed the extrusive rock was cooled rather fast. The lava, flowing along, was more or less being stirred. The combination of these two factors, the rapid cooling and the constant motion, retarded the growth of crystals, thus the result is small crystals or in other words a rock of fine-grained crystalline structure.

Intrusive rock, on the other hand, cooled very slowly deep in the earth. Its crystalline structure is comparable to that of the sugar that cooled slowly. The molten rock material had cooled slowly enough to allow crystals to grow to a rather large size, thus intrusive rocks are coarsely crystalline.

Both composition and Crystalline structure are incorporated into the following table giving an example of each type.

	Granite	Diorite	Gabbro
Color	Light	Dark	Dark
Structure	Coarse	Medium	Fine

	Light colored	Moderately colored	Dark colored
Coarsely crystalline	Granite	Diorite	Gabbro
Fine grained	Rhyolite	Andesite	Basalt

There is actually no clear cut line between different specimens of igneous rocks because of the infinite number of gradations possible in both crystalline structure and composition.

70 NEW PEBBLE PUPS

At the annual Sixth Grade Camp of the Grand Ledge Schoolsheld at Long Lake, Yankee Springs, Ernest A. Kelford conducted four field trips on topographical geology and fossil hunting. He also gave a demonstration of ultra violet light. Joe Prevey presented every camper, numbering 70, with a specimen of polished rock. The novelties aroused great interest. Result: 70 new pebble pups.

THE LAPIDARY ARTS

by Larry Kirkby

Saws for the Cutting of Semi-precious Stones

Several different types of equipment are used for cutting stones. One of these is the mud saw, the other, the diamond saw which is probably the most popular of the two.

The mud saw, as the name implies, gets its cutting power from a muddy mixture of silicon carbide grit and water. The saw blade, a circular piece of light iron or steel, about 18 gauge, is mounted on the side of a rectangular box. The saw blade is immersed about a half inch in the "mud". The stones to be cut are placed in a vise which is mounted so that it slides along beside the blade. The stone is cut by the abrasive action of the silicon carbide on the edge of the saw blade. A cover over the top of the saw is needed to keep the "mud" from splashing. The blade revolves at a speed of from 250 to 450 rpms. At this speed the amount of splashing is reduced. Although this type of equipment is a little slow in cutting, it is less expensive than the diamond saw.

The diamond saw gets its cutting power from diamond grit that is impregnated in the edge of a circular steel blade. This saw is constructed in much the same way as the mud saw except that a coolant is placed in the bottom of the saw's box. Heating of the saw blade and stone is prevented by the coolant. The speed of this saw is much faster than that of the mud saw, 700 to 1000 rpms.

FIELD TRIP MAP

PUGH QUARRY

SAVE

