



# CENTRAL MICHIGAN ROCKHOUND NEWS

VOL. II

Apr. '58

NO. 4

"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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Central Michigan Lapidary & Mineral Society  
Central Michigan Rockhound News  
April - 1958

MISS HELEN MARTIN SPEAKS TO CLUB

Miss Helen Martin, a research geologist for the Michigan Conservation Department, gave an interesting talk on the geological evolution of the state of Michigan and of some of its commercially important minerals at our last club meeting, on March 20th. Her talk was accompanied by colored slides. Mr. Kelly, an assistant of Miss Martin's, brought along a display of these commercially important minerals.

CLUB TAKES FIELD TRIP TO DETROIT ROCK SHOPS

Our club went on a field trip, Saturday, March 29th, to Detroit visiting the rock shops of that area. Although the weather was fine, the attendance was small. The rock shops visited were: Merle's Rock Shop on US 16 near Detroit, Brad's Rock Shop in Ferndale, and the J & B Lapidary Shop on Shafer Highway in Detroit.

CLUB TO HEAR OF PROSPECTING IN WEST

Mr. Ray McCurley, one-time Western prospector, will speak at our next meeting, April 17th, on prospecting in the West and on the collecting of rocks and minerals. Mr. McCurley will bring along his collection and talk about some of the specimens.

FIELD TRIP BEING PLANNED TO U. OF M.

A field trip to the Natural Science Building at the University of Michigan for the purpose of visiting the university's rock and mineral collection on some Sunday afternoon in the near future is being planned now. The exact date will be set at the next meeting.

NAME CARDS A SUCCESS

The plastic identification cards with the members names on them appeared to work very satisfactorily at our last meeting. The cards, something new, are intended to aid the members in becoming more familiar with each other. On arriving at the meeting, the cards are picked up, pinned on, and then dropped in a box when the members leave.

ROCKHOUND DIRECTORY & CAR EMBLEM

Be sure to purchase a directory of all the club members in the clubs affiliated with the Midwest Federation from our secretary, Grace Shappell, for only \$.25. When in a good collecting locality, you can visit these rockhounds for particular information on the location, or maybe even do some trading with them.

Grace also has metal car emblems of the American Federation of Rock and Mineral Societies of which our club is a member. These may be purchased for \$.50.

## FROM THE PRESIDENT'S ROCK SACK

By Joe D. Kreps

Mrs. K. and I just got back from a trip to Mammoth cave, - our first- and we surely enjoyed it. We took the  $4\frac{1}{2}$  hour trip through the cave, - four miles - whew! We haven't walked so far in one stretch since either of us can remember. At a rock shop we bought a stalactite for a souvenir, - (they spelled it "s-t-a-c-t-i-t-e" but they had the \$1:00 sign O.K.). We also bought a couple of other small rocks and just let our mouths water over some of the really nice specimens that we saw in the rock shops, - too big for our silver hooks. To say that we passed them up because it is more fun to find them ourselves would just be sour grapes.

Seeing the beautiful formations in the Cave made us more eager to get out on a field trip soon. We did prospect the limestone quarries along the way - took us two days just to get down there - but didn't have much luck finding crystals. Hope to see you all out at our next meeting, Apr. 17.

## PRACTICE MAKES PERFECT

By Nina Cotton

In the National Museum in Washington, there is a 578-carat aquamarine - the largest ever cut in the United States. There are 207 facets to release its great beauty. Surely, you think it must have taken a lifetime to acquire such consummate skill. But inquiry discloses that the beautiful aquamarine was cut and polished by a 37-year-old man who was more or less an amateur. Five years previous to his cutting this stone, he knew nothing of the lapidary's arts.

You may not become as proficient as this man, who is exceptionally steady of hand and keen of eye, in five years - or 50 - but patience and practice will enable you to cut beautiful gem stones in a reasonably short time.

At first you make cabochons, stones cut in rounded form and polished. You will spoil some material, but if you watch what you are doing, before long you will turn out stones that will delight you and your friends. Then, with growing skill a better grade of materials can be used, like banded or moss agate, chalcedony, jasper, or jade. Many dealers sell minerals from common rocks by the pound to precious stones by the carat, imported and domestic. It is more fun, though, to be a real "rockhound", and spend vacations and weekends seeking specimens on beach and mountain, in cave and quarry. Almost every part of the United States has beautiful stones to offer, although the West is the most prolific source of desirable material.

About 90 gem stones have been used in commercial jewelry. A couple of dozen are used regularly. But the hobbist finds several hundred of about 1,600 known minerals hard enough for cutting.

## THE LAPIDARY ARTS

By Larry Kirkby

### The Grinding, Sanding and Polishing of Stones

Last month the gem polishing unit, a common type of equipment for the working of semi-precious stones, was discussed. This month the discussion will cover how to work the stones on this piece of equipment or, for that matter, most other types of equipment which operate in a somewhat similar manner.

The ideal low-priced unit as discussed last time was set up in the following way: On one shaft of a double-shafted arbor, a grinding wheel, #80 to #100 grit, was placed, and a drum sander with a sanding cloth of #220 grit was placed on the other shaft. Mounted on the end of the drum sander was a sanding disc with inter-changeable round sanding cloths of grits #100, #220 and #400 or #600, also an inter-changeable leather polishing buff. Both cabochons (stones which are rounded convex form, but which are not faceted) and stones that have large flat surface areas, such as slabs, may be polished on this equipment.

In working with cabochons, most of them are usually mounted on a dop stick which is a dowel stick or nail to which the cabochon is fastened by means of wax. This aids in the working of cabochons because some cabochons, being relatively small, are rather hard to hold in the fingers while working.

In the case of working cabochons, the first step is the grinding on the grinding wheel where the saw marks are removed and the stone is shaped to the desired form. The stone is moved evenly back and forth across the gride to prevent the grinding wheel from becoming grooved. Grooved or bumpy wheels can be trued by grinding an agate across the wheel or by means of a diamond dressing tool. Stones with large flat surface areas however are worked on the sanding disc with the #100 grit sanding cloth.

Next the cabochons are sanded on the sanding wheel until they become very smooth. The flat stones are sanded with the #220 grit sanding cloth on the sanding disc until they appear the same.

The third operation takes place on the sanding disc with #400 or #600 sanding cloth where both the cabochons and flat stones are sanded. When finished, the stones should have a polished look. If there are any rough spots or scratches they will have to be removed before continuing further.

Last comes the polishing, which is done on the leather polishing buff. Tin oxide, cerium oxide, titanium oxide, or some other polishing compound is mixed with water to form a thin paste and applied to the buff with a small brush. Any of the polishing compound remaining in the pores of the stones may be removed with a tooth brush.

This method produces marvelous results; the stones have as high a polish as obtainable by any means.

## LET'S GET ACQUAINTED

CLARENCE & GLADYS KIRKBY have a whole house full of rocks. Their collection is made up of rocks from all over the U. S. The Kirkby family has made several trips out West and are good to see for locations. Clarence, now a board member, was the first club president who did so much in organizing the club. Mrs. Kirkby, also active in club affairs, is this year's social chairman. When Mrs. Kirkby isn't doing house work, she is usually making jewelry with her son, Roger, which they sell.

ERNEST FULTON has a good rock and mineral collection started. He does some lapidary work on a horizontal lap. Mr. Fulton also lectures to groups on rocks and minerals.

ERNEST KELFORD is a retired minister with a real interest in rocks. In Eaton Rapids he has formed a rock and mineral club for students. At the Craft and Hobby Show in the Civic Center last year he donated his time to stay at our booth.

DAVID EWERT is a fourth grade student at Glencairn School who really knows his rocks. He has a mighty fine collection started.

DOROTHY & PERCY GIBBS have a fine collection of polished cabochons from Mich. which they did on their horizontal lap. The Gibbs also do silversmithing. Percy is our field trip chairman this year.

DOC LANGHAM & FAMILY got bit by the rock-pox bug and have a collection started and are doing some tumbling. More prominent than their rock collection is their shell collection, Doc is an authority on shells. He was last year's field trip chairman.

JANETTA SLOAN, the principal of Glencairn School, is our club librarian, and has done a grand job in getting our library organized. Having also been bitten by the rock-pox bug, she is trying a little tumbling. She has some very nice specimens of Iowa geodes.

NORMAN HETTINGER, a nephew of the Young's, is another student member with a good collection. He does some lapidary work with a tumbler and grinders. Norman goes to Holt High School and is also interested in electronics.

CLIFF PREVEY is a genuine rockhound who does lapidary work. He has a tumbler and a horizontal lap. Cliff has some Michigan jasper and conglomerant for trade.

LEON & JANETTE NORTH are two more genuine rockhounds. They have a great collection of indian artifacts and also of rocks and minerals. They do some lapidary work on a horizontal lap. Leon is this year's vice-president.

## GEM AND MINERAL SHOW

Midwest Federation Of Mineralogical & Geological Societies  
Fossils - Rocks - Artifacts - Gems - Jewelry

Come to the big Midwest Federation Gem and Mineral Show, Community High School, Downers Grove, Illinois. June 19 - 22, 1958. Open Thursday 1:00 to 10:00 P.M., Friday and Saturday 10:00 A.M. to 10:00 P.M. and Sunday 1:00 P.M. to 6:00 P.M.

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Single day admission - 50¢

Four day registration - \$1.25

30 dealer exhibits, society and individual exhibits, free movie and color slide showings, outstanding special exhibits, a snack bar, field trips and many other attractions. Visit nearby Morton Arboretum and the Brookfield Zoo. In Chicago, only 25 miles away -- Natural History Museum - Adler Planetarium - Museum of Science and Industry - oriental Institute. Camp site, ample motel accommodations and restaurants close by. Write ESCONI, 4729 Prince St., Downers Grove, Illinois, for further information.

Host Club - ESCONI - the Earth Science Club of Northern Illinois

Big Banquet Saturday, June 21st. - make your reservation, now, with Joe Kreps. Tickets are only \$4.00.

Our club will have a display of specimens. Lets contribute to this display and make it an attractive one.

### THE FORMATION OF ROCKS

By Wee Willy

(This is the first in a series of four articles on the formations of rocks, written in an easily understood manner since many of the club members have only a small amount of knowledge of rocks.)

#### Introduction

In the beginning, according to most modern scientific theories, the earth was a sphere of red-hot molten rock materials, which upon cooling after millions and millions of years formed a surface of solidified rock. Tremendous pressure exerted on the interior of the earth caused the still hot molten rock of the earth's interior, called magma, to break through any cracks or weak spots in the solidified outer shell of the earth and flow out on the surface. Here this molten rock, now called lava, cooled and formed more rock. Still more rock was formed by the solidification of magma intruded into cracks in previously existing rocks.

These rocks, formed by the solidification of hot molten rock material, are called **IGNEOUS** rocks which comes from the Latin word, igneus, meaning fiery. All rocks formed in this manner are classified as igneous rocks.

As soon as an atmosphere of considerable water vapor formed around the earth and the earth's surface had cooled enough to allow water to stand, the rain which fell began to slowly wear away particles from the exposed rocks. This rain formed rivulets, which combined with other rivulets, formed streams and these in turn formed rivers, all of which wore away the rock. Quick changes in temperature, the roots of plants, falling rocks and chemical changes also aided in the breaking up of rocks into smaller particles. Glaciers, wind, ground-water and wave action ground, gouged, and wore down rocks in this wearing down process called erosion

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When these particles, formed by erosion, varying in size from clay and sand up to the size of gravel and small boulders, had collected they were often changed into solid rock by the cementation of chemicals and pressure. Rocks originating in this manner are called **SEDIMENTARY** rocks which comes from the Latin word, sedimentum, meaning a settling.

Pressure and temperature become much more intense as the depth below the surface of the earth increases. If the pressure and temperature become intense enough the identity of the rocks will be changed. Rocks which have had their original identity changed are called **METAMORPHIC** rocks which comes from the Greek words, meta meaning change and morphne meaning form.

All rocks may be classified according to their origin. The scientist classifies them into three different groups: **Igneous**, rocks formed by the solidification of molten rock materials; **Sedimentary**, rocks formed from rock particles and sediments changed into solid rocks by the cementation of chemicals and pressure; and **Metamorphic**, rocks that have had their original identity changed by intensive heat and pressure.

#### LOCATIONS

(This is a new feature of this bulletin designed to acquaint the members with some of the easily accessible rock collecting locations within several hundred miles of the Lansing area so that they may on vacations or trips, visit these spots. Some of the members who have visited the locations will be listed so that you may contact them for further information.)

PLACE: Petosky, Mich. (230 miles)

MATERIAL FOUND: Petosky stones. These are petrified coral which takes a high polish and can be made into jewelry or other articles. These have a high value in the western states and may easily be traded.

DESCRIPTION OF COLLECTING AREA: Petosky stones may be found all over Northern Michigan but they are extremely abundant in the Petosky area. They are found in either gravel pits or along the beach of Little Traverse Bay, especially after a storm.

FURTHER INFORMATION: Clarence Kirkby, Pete Janeson, Harry Maran.

PLACE: Chenny Limestone Quarry; Bellevue Michigan (30 miles)

MATERIALS FOUND: Marcasite, calcite, various fossils, and occasionally some fluorite.

LOCATION: The quarry is located one mile west of Bellevue on the south side of M 78. The quarry is easily found because the quarry and machinery are easily seen from the highway.

FURTHER INFORMATION: Clarence Kirkby, Joe Kreps, Harry Maran, Max Nusban and Doc Langham.

Note: Be sure to take a chisel for cutting out the calcite crystals.