CARD OF CC. TRUL

Prosident	r. James DeZwaan	8250 Cherry Valley d Caledonia, ich.	1-8054
Vice-President	ir. Arthur Ferguson	2748 Pohens, N.	361-6451
Secretary	Mrs. D. C. Smith	3250 Thorncrest Dr.,	949-0543
Treasurer	Irs. Dorothy Ferguson	2748 Pohens,	361-6451
Historian	rs. Alice DuPrey	3326 Padger, S	532-3841
Liaison Rev.	Dr. Robert P. Smith	1445 reton Rd., .	949-4093
Editor	r. Gordon Milliams	2038 Parade Dr.m	361-0531
Goard Members	r. and Irs. Ford Hurd Ir. Ted Duprey Ir. Larry Fegel	7230 Fillmore, Judsonville 3326 Padger, 7 128 Dale, N.T.	895-6258 532-3841 3-7335
Glacial Drifter Staff: Fiss Esther Hall, typist 735 Fountain, .			458-5409
		n ive., Grandville	534-3871

The Grand Rapids ineral Society is a Mon-Profit Corporation affiliated with the lidwest Federation and the American Federation of ineral Societies

Crand Rapids Public Fuseum Fulti-Purpose Room, East Fuilding. Summer meetings are at various parks as announced.

Tembership dues are \$5.00 per year for a family, *3.00 for a single adult, and \$1.00 for students under 18 years of age. Dues are payable to the treasurer. The year is from Sentember 1 through August 31 of the following year.

Advertising in the GLACIAI DRIFTED is limited to a uniform size of one third page at the rate of 33.00 per issue, September through ay only.

All material for publication shall be in the hands of the RDITCP no later than the Wednesday aft r the regular monthly RCARD OF CONTROL meeting, which is the third week of the month.

Permission to reprint articles appearing in the Glacial Drifter is hereby granted, provided proper credit is given.

Smber - Pational Pulletin Editors Association.

ENCHANGE VELLTIN EDITORS CLEASE NOTE: Please address all exchange bulletins to: Pr. Gordon Williams, Editor 2038 Parade Dr., N.W.
Grand Panids, Lichigan 49505

Board of Control meeting will be January 19, 1970, at the home of our Secretary, Mr. and Mrs. R. C. Smith, 3250 Thorncrest Dr., S.E. All Board members please plan to attend. We also invite the chairman and co-chairman of the show to attend this meeting.

1969 has been a great year for the Grand Rapids Mineral Society. I believe our membership has had a good year. We have brought cheer and help to many in our area. At the show of last March we were able to interest many school children and help them to hand polish a stone. We had, I believe, the greatest mid-week audience we have had in a long time. We had people who traveled long distances. The praise we got and the good will we created made our efforts worth while.

It is not my intention to rehash the past. However, we all know in times past the Grand Rapids Mineral Society has had their times of glory. We have done many things of which we can be proud. I was never more proud of the Grand Rapids Mineral Society than at the Christmas party. Some of our members worked so hard to prepare the tables and get ready for this event. We had food galore and presents aplenty. It was indeed a privilege to host so many of our fellow rock hounds. Without the help of everyone this would have been a real flop, BUT you were all perfect hosts and hostesses. It was, I hope, a real pleasure to all. Again I must say to everyone, "Thank you so much."

And now here is a matter I don't like to mention. Some of our members have not renewed their memberships and dues are past due! As your President, it is my duty to inform you that this will be the last issue of the Drifter you will receive if your dues are not paid. So I am asking you too please take care of this small matter. I don't believe anyone tries harder to give you your money's worth than the Grand R apids Mineral Society. We feel we need you and you need us.

Now back to the more pleasant part of our program. The time of year has again arrived to prepare for our annual show. Nellie Mead and Roger King will be Co-chairmen. They need a theme for the show so if you have a thought, please put it down on a slip of paper, along with your name, and win a prize. You can leave them at the next meeting.

The dates of the show are: set up on Saturday, February 28 -- dismantle March 29 after 5:00 P.M. If you cannot take them out on the 29th, the Museum will allow two or three days and help you with them.

As you all know, this event does require a lot of help and hard work, so again I must say if you want to help the Society, here is a good place to get involved. You will never regret it, I am sur e.

The January 14 meeting will be outstanding, as we will have Prcf. Menninga from Calvin College. I am sure this program will be outstanding. He is in charge of the Calvin Goology Department. Do by all means come out and hear something different.

We have pledged Calvin College and the Grand Rapids Paptist College some rocks and minerals to use in their studies and also for their showcases. We still need lots of them. Richard Van Beek has been collecting them. If you have some spare pieces, won't you bring them in at the January meeting? You will never find a better place to give some of your surplus than here. Both of these schools have students from all walks of life, and much good can come from this project. Please label specimens and include your name and address. I feel this is a very worthy project.

James DeZwaan

Christmas '69 has come and gone, and with it has gone the last meeting of the Grand Rapids Mineral Society for 1969. And what a meeting it was -- the Christmas potluck!

Around 75 or 80 people (the Editor has trouble once he runs out of fingers and toes) were on hand at the East Building of the Museum. The cooks had outdone themselves in preparing their favorite dishes. The gift cart was piled high, and the mood was jovial.

Dr. and Prs. Smith had done a fine job of securing hosts and hostesses for the guests. That a delight it was to see the response from other clubs. The roster of guests reads like a "Who's Who" in Central and Western Michigan rock clubs.

Muskegon - Mr. and Mrs. Paul Schultz, President and bulletin editor, respectively of the Muskegon club.

Mr. and Mrs. Dick Patych. Dick is the immediate past president of the Muskegon club.

Grand Haven Mr. and Mrs. Truman Mars. Mr. Mars is President of the Grand Haven club.

Mr. and Mrs. Charles Kelley. Mr. Kelley is Vice-President of the Grand Haven Club.

Kalamazoo Darl Luyhins and Ray Tripp represented their club.

Holland This club was represented by Mr. and Mrs. Robert Zigler. Fot is Vice-President and incoming President. This couple also edits their bulletin, and Mr. and Mrs. Kingshott.

Lansing Pr. and Mrs. Robert Watson. Prs. Watson is Lansing Membership Chairman.

After the meeting the Matsons came home with the editor and wife for a gat first. The Matsons went to Murdo to the Convention, and while their troubles were legion (mechanical) they indeed gave a most interesting account of the convention. As a result of this, new friends were made and we are going to visit the Mason club, of which they are also members. But, back to the meeting.

The enthusiasm of tiss Gunn, the Grandville elementary teacher who went to Higgins Lake on the club scholarship was most contagious. Her recounting of the busy days devoted to a more complete understanding of total environmental conservation left us all glad to have been a small part of this program.

Don Crabbe brought along his slides of previous rock shows, some field trips and former club activities. This was also much appreciated.

The usual fine assortment of door prizes were drawn, and it was fun to set three of our guests take home a memento of our club. Paul Schultz and Dick Latych of Muskegon and Robert Zigler of Holland were the lucky winners.

So many people from President Jim on down had a hand in a fine party - cvor Santa - that it is impossible to do justice to such a roll call. However, irs Ferguson and Mrs. Hurd deserve a special thanks from the club for being co-chairmen of the event and doing such a fine job. Truly, you gave us all a fine evening of fun and fellowship and new friends. You folks who didn't make it missed one of the high points of our year.

The article on agate sculpturing that appeared in the December DRIFTIR

prompted Dr. and Elaine Smith to being two pieces they brought back from Germany. They were exquisite. Thanks for sharing them with us. THE RESIDENCE OF THE PARTY OF T

Our Kalamazoo guests asked that we announce their Rock-a-rama that will be held May 16 and 17 in Kalamazoo. More details will follow. They are looking for displays.

How are you coming on your exhibit for the March show at the Museum?

How is this for starting out 1970? Dr. Clarence Menninga of Calvin will give our January program. His topic will be meteorites. Dr. Menninga was responsible for calling our attention to the Idar-Oberstein article in the DRIFTER.

We have been asked to run this announcement for DRIFTER readers:

The Blossomland Gem and Mineral Society will hold a midwinter Rock-a-rama on January 25, 1970 from 12:00 noon to 5:00 P.M. It will be held at the St. Joseph Public Library, 500 Market St. at Lake Blvd. This is two blocks west of Main Street.

NO DEALERS

NO ADMISSION CHARGE

The next meeting of the Mineral Study Group will be January 21, 1970, at the home of the Fay Reeds, 425 Lafayette, N.E.

NEWS OF COLLECTING AREAS

The Medusa Quarry, Sylvania, Ohio, is now completely closed to collectors during the week! Fossil hunters may not enter either the pits or the dumps on any working day! Somebody really blew it!

SUBJECT ASSESSMENT OF THE PROPERTY OF THE PROP

The quarry had been allowing collectors in, but too many people abused their privileges. They managed to do all the things they shouldn't have, and the quarry was forced to cancel those privileges. Deople did things they should not have, went to places they didn't belong, got in the way of the workmen. And then one arrogant, inconsiderate ingrate had the nerve to tell off one of the workmen when asked to move his car!

There can be an excuse for an honest mistake. There is no excuse for arrogance! We doubt that there was anyone in a club involved in this incident, or even anyone in the Federation. But if it was someone who calls himself a "rockhound" we think he would be doing the hobby a great favor if he would resign. There is no room in the world of the rockhound for persons of this type. We don't need the bad reputation which they so generously want to donate?

Please carry your best manners with you wherever you go.

From the Aga-Type via the Prospector and the Illowa News Grinder

TIPS FR CM THE TOPS - Ken Bitney via Geologic

- 1. A scotch stone is a fine tool for removing scratches from your silver work.
- 2. For good results in drilling gem stones, drill before they are sanded Some stones tend to chip when drill goes through.

This letter came a few days ago. Since I have nothing else to do, I'll be glad to bass on any names who might be interested in showing. Call me at home after 5:30 P.M. 361-0531, and I'll pass the information on to Kalamazoo.

The Editor

Dear Fellow Editors:

HELP! HELP!!!! As we will be having a Rockrama on May 16th and May 17th, 1970, we are looking for special and outstanding displays, and I don't know of any better place to go for help than to fellow editors.

> We will be having a swap session in addition to our regular features: dealers, games, door prizes, educational programs, lapidary workshop, and silent auction.

Set-up time is Friday evening from 6 to 10, but, as we do not open until 10 on Saturday, it would be possible to set up a display that morning.

There will be camping available on the grounds, with water hook-up for \$1.00 per day.

I would appreciate it if you would please let me know of any members of your club that might be interested in displaying. Would you please send their names and addresses, plus phone numbers, as soon as possible.

Thank you. Very truly yours,

KALAMAZOO GEOLOGICAL & MINERAL SOCIETY

Kathryn Starbuck Editor

From Gem Scoop via Pick & Shovel MALACHITE and The Jaspilite

Treasured for ages because of its intense green color and interesting circular markings, malachite is easy to work but difficult to polish. The hardness is 3,5 to 4, composition is a basic carbonate of copper. Both malachite and azurite are associated with minerals of similar origin -such as cuprite, native copper, and iron oxide.

Alternate bands of pale to dark green indicate places where malachite varies in density. Darker portions are denser and easier to polkish. Because it breaks readily along the fibrous grain, cabochons are cut thicker to lend strength to the stone. It is heat sensitive but care in dopping prevents fractures.

Malachite, being a soft stone, grinds easily. It can be entirely sanded on a 400 grit cloth using plenty of water, to produce a high gloss. It undercuts when polished on felt or cloth. Polish on leather with Linde A or chrome oxide. If a higher polish is desired, finish by hand on clean leather dipped in a thin suspension of water and chrome oxide, to which a little soan has been added.

Since I was a boy I have been more or less interested in superstitions. I don't believe that I ever took one seriously. But my mother had many in which she believed. If a bird flew into the house it meant that one of the family would pass away. A black cat crossing the road was sure to bring bad luck to the one whose path he crossed. Most of those superstitions predicted bad luck of some kind.

While reading about many of the old superstitions and beliefs, I find that there were reasons for most of them. The old timers or ancients, as we sometimes call them, not only invented stories to explain the origin of gems, but they also endowed them with strange and magical powers. By doing this they created a demand for certain stones, thereby they assured a livelihood for themselves. Only superstition made this possible.

Here are some of the old beliefs:

To hold a moonstone in your mouth would refresh your memory.

Drink wine from an amethyst cup and you will never get drunk. (The Greek word amethyst means "not to intoxicate").

Sapphire, according to oriental legend, was a drop of Amrite, a drink of the Gods which conferred immortality. The Gods allowed it to solidify so that mortals could get a glimpse of Nirvana.

Rubies, it was believed, grew and ripened like plants. If a ruby was not the prized deep red color, it was thought to have been "picked" too soon.

Many gems were believed to warn their owners of danger of one kind of another by changing color. King John and Mary, Queen of Scots, wore turquoise and diamond respectively for this purpose. These stones were supposed to detect poison.

Bloodstone was believed to be formed when drops of Christ's blood fell on green jasper at the foot of the cross. It was supposed to have magical powers. Writing in the 15th Century, a painter and historian, Giorgio Vasari, tells of being stricken with a honorrhage while in the presence of another painter. His friend applied bloodstone to the back of Vasari's neck and the flow of blood was stopped immediately.

Contrary to most other superstitions, most gemstones are believed to bring good luck to their owners. The wearing of birthstones, as we know the custom today, probably began in the 18th Century, but its origin dates to ancient history. The Book of Exodus describes the twelve stones in the high priest's breastplate.

Amber was probably the earliest of gems worn for adornment. Amber is a fossilized gum of extinct coniferous trees. As the viscous fluid oozed from the ancient trees, insects and plants were caught and entombed forever.

These words by Pope in Old English literature bear on this subject:

"Pretty in amber to observe the forms
Of hairs, or straws, or grubs, or worms,
The things we know are neither rich nor rare
But we wonder how the devil they got in there."
By Jim White Via Jaspilite and the Rear Trunk and Illowa News Grinder

Every rock fancier in Canada who has shaped and polished with loving care a jade stone, has very likely been deflated by receiving the following comment: "hy isn't it as green as the Chinese jade?" Well, hold back the sobs of frustration for here is "THE" explanation. The British Columbia jade and the true jade of ancient China are identical and that vivid green jade now displayed in jewelry shops as Chinese jade is actually jadeite and has never, in fact, been found in China.

There are two types of jade: nephrite and jadeite. Both kinds are translucent, hard, tough and valuable when of gem quality. Nephrite is found in British Columbia Alaska, Wyoming, California, New Zealand, Siberia, Rhodesia and China. The Kuen Lung mountain range located in northern China has yielded nephrite for at least 6,000 years. Prior to the appearance of jadeite in Burma, a scant three centuries ago, all of the jade carvings and jewelry of old China was produced from mephrite. Nephrite was worn as a charm to ward off evil and also as a talisman of good fortune. Jade was ground into a powder and mixed with wine as a medicinal beverage. Small burial pebbles of jade were placed with the dead in their tombs and funeral processions were led by musicians playing upon flutes, gongs and other percussion instruments made entirely of jade.

Jadeite, the other member of the jade family, is chiefly found in boulder form in the Chindivin River in Burma. Small deposits of jadeite have been found in California and Japan but there is no record of jadeite ever having been found in China. Jadeite is similar to nephrite in that it comes in a variety of colors that are usually concealed by a brown weathered surface. Jadeite is often ice blue or lavender, sometimes pink, yellow, brown, black and of course glorious green. This distinctive jadeite green is the "jade" currently associated with China. Somehow, during the past 300 years, this Burmese gem invaded China and "stole" the popularity from the nephrite. One could say that jadeite's claim to the title of Chinese jade smacks just a little of illegitimacy.

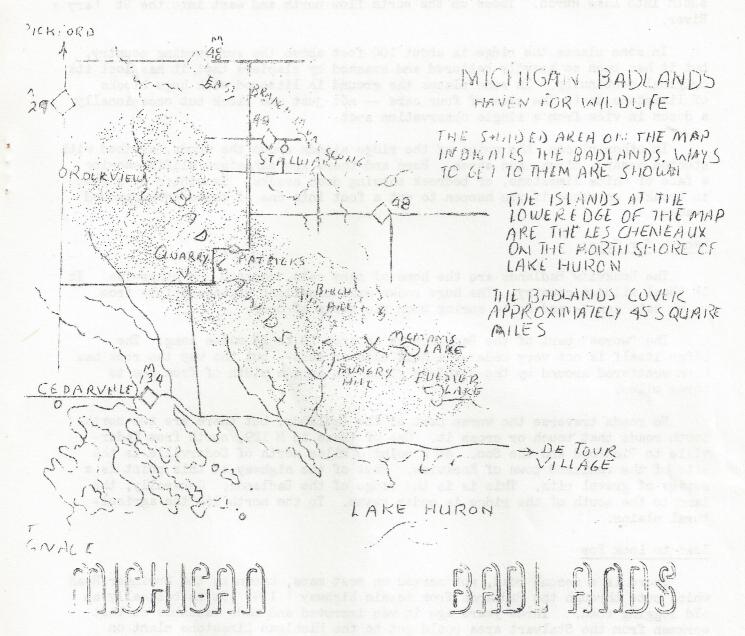
Jadeite is a little heavier than nephrite and slightly harder. The bright green coloring of jadeite is due to the presence of chromium compounds whereas iron is largely responsible for the coloring in nephrite.

Prior to World War II jadeite was gathered in the hill country of Burma and shipped to Shanghai, the jade center of the world at that time. A narrow groove was cut and polished in each weathered stained boulder. These "windows" allowed one to see some distance beyond the surface discoloration. The jadeite boulders were graded and sold at auctions in Shanghai.

Then Burma regained independence after the second World War, the jadeite industry was nationalized and flow of jadeite to China ceased. In addition to jadeite and nephrite the two accredited members of the jade family, there are several other gem rocks that tend to trade on the name of jade: Transvaal Jade - actually Gross-Wlarito, a variety of green garnet; Indian Jade - actually Aventurine, a green quartz containing glints from mica crystals; Australian Jade, actually chrysoprase, a form of green Chalcedony.

Je now you can "inform" those who belittle your nephrite creations.

Ron Purvis via The Rock Vein, Winnibeg, Manita and Rear Trunk



Ever hear of the Michigan Badlands? They're big, rough, scenic!!

Thousands of tourists has close by each year without even suspecting they are within a few miles of this unusual bit of country.

Hunters know it best. It's great country for deer. Parts of it are superbgrouse cover. Bobcats, coyotes, and beaver love it. And here -- even this last winter -- the "extinct" lynx has been found (and killed) in the Badlands

The Rockview Badlands (named for a now-vanished town called Rockview) lie between Cedarville and DeTour, three to five miles north of the scenic shoreline highway, N 134. They (the Badlands) are nartly in Chinnewa County, nartly in Mackinac County.

The backbone is a high ridge of ancient limestone and dolomite rock, running

roughly east and west. East of Cedarville the ridge forms the main watershed of the eastern Upper Peninsula. Streams on the south face of the ridge flow south into Lake Huron. Those on the north flow north and east into the St Pary's River.

In some places the ridge is about 100 feet above the surrounding country, but it has been so heavily battered and smashed by glaciers that it has lost its original continuity. In some places the ground is littered with huge blocks of limestone up to the size of four cars -- not just one block but occasionally a dozen in view from a single observation spot.

In other places, the spine of the ridge stands above the woods, clothed with stunted cedars, birch, and aspen. Here and there are miniature cliffs showing a face of white limestone, or bedrock showing deep cracks. In winter it's easy to break a snowshoe if you happen to put a foot into one of those snow-covered cracks.

Ambush for Cats

The Rockview Badlands are the home of many cats, phantom and otherwise. It is ideal wildcat country. The huge rocks make excellent vantage points from which cats can -- and do -- spring upon the backs of deer.

The "worse" part of the Badlands is an area 10 to 15 miles long. The ridge itself is not very wide -- a half mile or less-- but the way the rock has been scattered around by the glaciers gives the area a width of from one to three miles.

Mo roads traverse the worse part of the Badlands, but there are two north-south roads that touch or cross it. One of these in M 129, north from Cedar-ville to Pickford and the Soo. At a point 6 miles north of Cedarville is the site of the vanished town of Rockview. East of the highway at this point is a series of gravel pits. This is is the ridge of the Badlands. Generally, the land to the south of the ridge is cedar swamp. To the north lie the agricultural plains.

Road to Look For

There is a second road, not marked on most maps, known as the Springer Road which cuts through the Badlands from scenic highway 1 134. It is basically an old logging road. Three years ago it was improved and made passable so that workmen from the Stalwart area could get to the Michigan Limestone plant on McKays Bay, east of Cedarville, without having to go the long way around.

The south end of the Springer road hits N 134 at a point about 12 miles west of DeTour. It winds north through some thick swamps, cuts through the Padlands in a fairly passable place, and then comes out on the plains to the north. The road is not kept open in the winter.

The Badlands are terrific hunting country. There is one section south of Stalwart, in fairly level country dotted with huge blocks of limestone, that comprises the prettiest partridge habitat a man could ask for It's a combination of scenery and good hunting.

Almost all the Badlands area now is owned by the state, and hence open to hunting. Along the southern edge there are some posted flots, bought up parcell near the highway. But in the Badlands proper there are no easy roads and no easy access, hence no posting.

9.

The Badlands ridge is a part of the Niagara cuesta or ridge, that runs for about 1,000 miles around the Great Lakes.

The Niagara starts down around Chicago and forms more or less the west shore of Lake Michigan, including the Door Peninsula enclosing Green Bay, Wisconsin. Then it swings in an arc through the southern part of the Upper Peninsula (the very rocky, sheer-cliffed and beautiful Garden Peninsula is a part of it) and turns east to run north of Cedarville and smack through DeTour.

The Niagara Ridge forms Drummond Island, the Manitoulin Island, and Bruce Peninsula enclosing Georgian Bay, and runs on south to form Niagara Falls. At the Falls, it forms the ridge of very hard dolomite that locks four of the five Great Lakes from 500 to 600 feet above sea level. From Niagara, the ridge swings east to form the south shore of Lake Ontario.

Millions of Years

This Niagara Ridge -- and the Rockview Badlands -- is a heritage left to us from the Silurian Age many millions of years ago. (Ed. note: 365 to 380 million years ago.) The Silurian Sea covering this part of the country in those times was warm and clear, very good for coral to grow. The coral grew in reefs on the sea bottom, in shallow water that was on the edge of deep water. The reefs sometimes attained heights of from 750 to 1,000 feet above the sea floor.

Over millions of years, the space between the reefs were filled with other sediments that turned to limestone and dolomite, filling the whole thing in. The four glaciers that started coming about one million years ago gouged out a lot of softer stone and left this Niagara Ridge more or less exposed.

The limestone and dolomite in the ridge are valuable commercially. There are three quarries mining it for the metallurgical, chemical, and construction trades -- Port Inland for limestone, west of St. Ignace; Port Dolomite, Michigan Limestone division of United States Steel, about 5 miles east of Cedarville; and Drummond Dolomite, Inc., on Drummond Island.

You can drive right by the fringe of the Badlands and never realize it. Take time next trip to have a look.

This article, written by Woodie Jarvis, Outdoor Writer, appeared in the Jackson CITIZEN PATRIOT, Sunday, March 13, 1960.

MONTANA MOSS AGATE from Red Skins Stone News

The Montana Agate has held the interest of many people for over half a century, because of the scenes and moss spots that appear inside the rock.

Many theories have been advanced as to the cause of these scenes and colors, and to many it is a mystery. However, the geologists tell us that the spots were formed by metallic oxides entering the rock through infinitely minute seams and fissures. As the rock continued to harden, the moisture that carried the oxides evaporated and the seams or fissures were healed by soft formation. The red color is oxide of iron, the black is oxide of manganese, the green is oxide of copper, and the blue is oxide of nickel. According to scientists this process took over three million years, resulting in the third hardest stone in the world.

The Montana Agate, a semi-precious gem stone was at one time found in abundance along the Yellowstone River, but after many years of gleaning the supply is becoming less plentiful.

Jasper, a quartz mineral, is one of the cryptocrystalline forms and is closely related to Chalcedony. This form has resulted from the silica containing solutions being subjected to a sudden change in the physical environment that caused silica or SiO₂ to crystallize very rapidly and thus form only microcrystals associated with amorphous (noncrystalline) quartz or opal. The clear and transparent or translucent varieties of crystalline quartz are called chalcedony. The variety of color results from the presence of other minerals such as iron, nickel, or manganese.

In other conditions the silica containing solution permeated into other earthy substances such as clay, and finely porous rocks, and there crystallized in the interstices between the particles of the earthy material, and thus the jaspers were formed.

Jaspers are widely distributed over the world. The quality of jasper as cutting material depends first on its hardness and its ability to take a polish. These depend in turn primarily upon the amount of "earthy" material present. The greater amount of the latter, the less likely the jasper will polish.

Secondly, color also determines the value as a gemstone. This depends again upon the presence of other minerals present in trace amounts.

Lastly, the presence of a pattern adds greatly to the charm of jasper as a gemstone. Again, during the process of formation, the nonuniform nature of the earthy material into which the silica solution penetrated determines the development of such a pattern. Thus variations in the porosity and staining minerals result in the creation of geometrical patterns, such as orbicular jasper. More rarely distinct pictures are created. Landscapes, seascapes, mountains, rivers, dwellings, etc., are frequently seen, as are human and animal figures and faces.

Pictures are found in many varieties of jasper, e.g., Biggs Canyon, Morrisonite, Bruneau Canyon, Stone Canyon, and brecciated jasper. Nearly all the states produce a jasper named after some one or some place. Mczarkite and Ohio flint, although classified as cherts, also are pictured stones.

The Opal via the Template and the Rockfinder

LETHAL DINOSAUR

The death certificate for Thomas Emmett Barton, 73, explained it almost too simply: "Fell off mule and hit head on a dinosaur track". But that's how it was. Mr. Barton, an independent coal miner near Hayden, Colorado, was the victim of a three-toed dinosaur that had ambled through a thick tropical rain forest millions of years ago. The old miner's son-in-law, Prof. Niles Grosvenor of the Colorado School of Mines in Golden, explained it this way: The giant reptile left deep impressions 20 inches wide where he trod. Sand filled the depressions and in time turned to sandstone. Below the sandstone track was the thick vegetation that was transformed into coal. In mining the coal, Mr. Barton uncovered the track but left it extending from the mine wall. Somehow Mr. Barton slipped from his mule while riding into the mine and struck his helmeted head on the projecting dinosaur track. He suffered neck injuries that led to his death some weeks later in a Denver hospital.

Hours
10:00 A.M. - 6:00 P.M.
Mon., Tues., Wed.,
Thur., Sat.
10:00 A.M. - 9:00 P.M.
Friday

ALETA"S ROCK SHOP At Their New Location 1515 Plainfield Grand Rapids, Mich. 49505 Phone 363-5394 11. Area 616

Gene and Winny Lups

Rough and Polished Gem Stones Lapidary Supplies Tumbling and Cutting Material Findings Excellent Assortment of Machinery

Nationally Known for Choice Material at Reasonable Prices

* * * * *

NEW ROCK SHOP

Hours
Mon. thru Fri.
6:00 P.M. to
9:30 P.M.

The Palace Gem Shop 40 Oneida, S.W. Wyoming, Michigan CH 34014 Sat. 8:00 to 5:30 A.M. P.M.

Custom Faceting and Cabbing

10% discount on \$30.00 or more

Owner Karl DeBack

Beacon Star Lortone

.. POLISHING SUGGESTION

After lapping flat stones, such as cut thundereggs with 600 grit, wash them and leave them under a heat lamp or 100 watt bulb for about five minutes. When the stones are warm, polish them on a felt wheel with tin oxide. By preheating, the polishing is almost instant. Otherwise, the felt wheel has to heat the stone before the polishing action begins.

Via the MESABI MEDIA and EARTH SCIENCE

HINT ON POLISHING STONES

Stones sometimes develop fine, threadlike scratches while being polished. These may be due to grit that has penetrated the polishing buff. (One grain will do it.) To clean, hold a strip of soft plywood or balsa wood firmly against the buff. The grit will imbed itself in the wood, leaving the cloth clean. HYGRADER via GEMS AND MINERALS and ROCKFINDER

MORE DIAMONDS

Said a jeweler, "An imitation diamond is never as brilliant as a genuine stone. If your eye is not experienced enough to detect the difference, a simple test is to place it under water. The imitation diamond is virtually extinguished whereas the genuine diamond sparkles under water and is distinctly visible."

via SAN DIEGO BULLETIN and REAR TRUNK

GRAND RAPIDS MINERAL SOCIETY ELEVENTH ANNUAL GEM AND MINERAL SHOW

Feb.. 28 to Mar. 29 G.R. Public Museum

Again the members of the Grand Rapids Mineral Society have an opportunity to show the community what "rock hounds" do. We can share with others our knowledge and our prized possessions, and at the same time interest others in our hobby.

There will be room for a single piece or a complete display. You name it and the Committee will fit it into the show....

ENTER NOW so we can plan the space.

HONE			
ary () Fossil ()			
) Educational ()			
Space Requirement			
I WILL HELP: Arrange a neighborhood display ()			
Host or Hostess for a urday or Sunday			
Mar. 29 ()			
ve or send to			
oger King 532-6239 957 36th, S.W. yoming, Michigan 49509			

(Remember that the show committee will not be able to insure exhibits this year. If you are displaying something which you feel must be insured, you should arrange for this yourself. All display cases at the show are locked, but especially valuable items should be in the wall cases.)

Grand Rapids Mineral Society
Mr. Gordon Williams, Editor
Mr. Robert Beauvais, Publisher
3308 Wilson SW
Grandville, Michigan 49418

Return :ostage Guaranteed

embers and a second color of the second color

Mrs. Reed Waterman 1317 Ballard St. S.E. Grand Rapids, Mich. 49507

Educational ()

of Resident to Junit a

F 85 . 201 . (

Hower King

ttee will not be able to

lest must be insured, you should arrange for this yourself. display cases at the thou are locked, but especially valuable

.acean Ilaw sut at