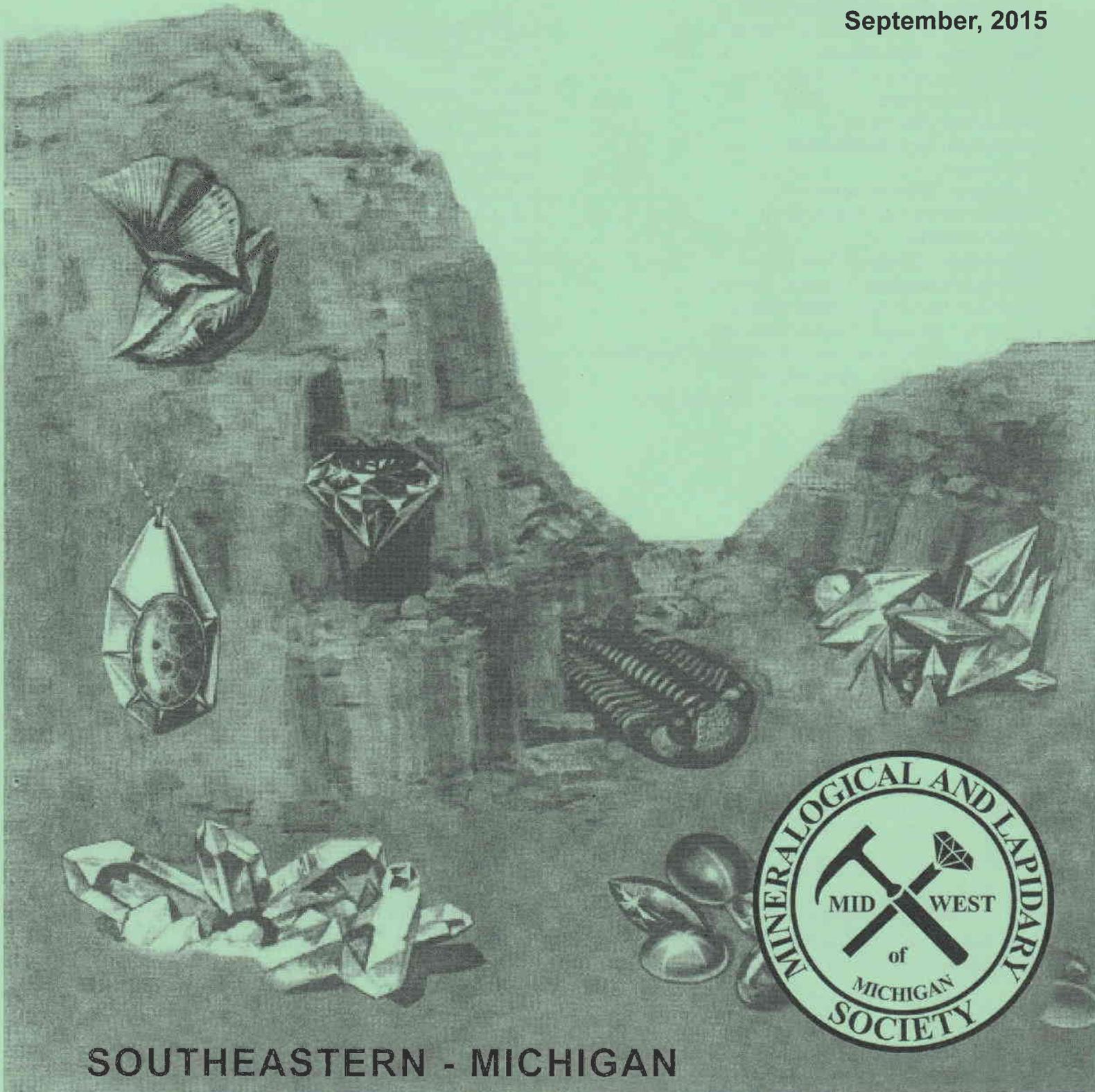


# THE ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

AFFILIATED WITH • MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES • AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES

September, 2015



SOUTHEASTERN - MICHIGAN

# Midwest Mineralogical & Lapidary Society

## 2015 OFFICERS

President: Diane Kuzara (734) 675-5237  
Vice President: Gary Slominski (734) 379-3294  
Recording Secretary: Edie Esche (734) 771-5269  
Treasurer: Doris Snyder (313) 291-2133  
Corresponding Secretary (Temp) Dan Gumina  
(313) 766-8944  
Liaison Officer: Leonard Swisher (313) 841-1606

## COMMITTEE CHAIRPERSONS

Club Services: Lynda & Don Baker  
Door Prizes: Mike Bomba  
AFMS Scholarship: Pat Rutkowski  
Field Trips – Local: Bill Barr  
Field Trips: Bill Barr  
Education: Dave Hendershot  
Insurance:  
Historian: Dolores Swekel  
Michigan Material: Tom Morris  
Club Publicity:  
Membership: Lynda & Don Baker  
MMLS Scholarship: Leonard Swisher  
Program Coordinator: Mike Bomba  
Property – Storage: Leonard Swisher  
Property – Meetings: Leonard Swisher / Ken Slack  
Sunshine Reporter: Velma Bradley  
Refreshments: Janet Slominski / Kim Osborne  
Web Site: Stacey Harper

## ACTIVITIES

2015 Banquet:  
2015 Swap: Lou and Cindy Talley  
2015 Auction: Dan Gumina

## STUDY GROUPS

Advance Lapidary:  
Basic Lapidary:  
Bead Study: Diane Kuzara  
Faceting:  
Mineralogy: Dave Esch  
Paleontology:  
Wire Study: John Lindsay  
Silversmithing: Don Brown

## PAST PRESIDENTS

Robert Ellison (interim) 1956  
Louis Cox 1957  
Robert Heldenbrand 1958-59  
Ralph Gamble 1959-60  
Fred Miller 1960-61  
Bert Smart 1961-62  
Leo Nieman 1963  
Nicholas Rothenhaler 1964-65  
Robert Fedoruk 1966-67  
John Good 1968-69  
Cecilia Duluk 1970  
Stanley Franczak 1971-72  
E. Donald Stinnett 1973-74  
Ralph Goniea 1975-76  
Norman Hanschu 1977-78  
Thomas Gibbs 1979-80  
Harry Nagy 1981-82  
Elsbeth Gibbs 1983-84  
Loretta Franczak 1985-86  
Roland Snyder 1987-88  
Jay Ross 1989-90  
Tom Morris Jr. 1991-92  
Diane Kuzara 1993-94  
Bill Orban 1995-96  
Glenn Swain 1997-98  
Bill Peach 1999-2000  
Diane Kuzara 2001-02  
Cecilia Duluk 2003-04  
Russ Ranker 2005-06  
Dick DePodesta 2007-08  
Rich Williams 2009-10  
Leonard Swisher 2011-12  
Mike Bomba 2013 - 14

The Rockpile Staff : Editor Peter Kuzara, [dpkuzara@peoplepc.com](mailto:dpkuzara@peoplepc.com), 734-675-5237

MMLS website – [www.mmls.us](http://www.mmls.us) Email - [rockhounds@mmls.us](mailto:rockhounds@mmls.us)

General Club meetings are held at 7:30 p.m. on every third Tuesday of the month (except July and August)  
at the Democratic Club of Taylor, 23400 Wick Rd., Taylor, MI 48180

GUESTS ARE ALWAYS WELCOME

**IMPORTANT NOTICE:**  
**WE ARE MOVING! BEGINNING IN**  
**SEPTEMBER WE WILL BE MEETING**  
**AT THE DEMOCRATIC CLUB OF**  
**TAYLOR, 23400 Wick Rd., Taylor.**  
**Use the door on the east side of the**  
**building that is marked "OFFICE" and**  
**turn right when you go through that door.**  
**Same room as our auction is in.**

**The President's Corner**

Welcome Back from Summer Vacation!

A big thank you to everyone who helped in any way with the Driveway Sale for the club on June 20<sup>th</sup>, the guys who came to prepare for the sale cleaning, sorting and pricing the items. Anyone who set up, worked at the sale from early Saturday morning till we closed and cleaned up at 5pm. An extra thanks to Gary Slominski and Pete Kuzara for helping transport equipment and rocks from storage for the sale as well as returning the things we didn't sell back to storage! The sale was successful, but, where were all our members? We had more support from our sister clubs. Let's try harder to support our own club activities.

Congratulations to Noor Soboh, our 2015 Scholarship recipient. We awarded a \$1000 check to Noor at the June General Meeting. She came to our meeting ( with her mother ) to accept the check and we got to meet this nice young lady in person. Noor introduced herself and told us a little about herself and her studies and talked with our members after the meeting.

**PLEASE SILENCE YOUR CELL PHONES** during the meetings! We are getting complaints about ring phones disrupting our meetings. Please be considerate and silence your phones or put them on vibrate.

Diane

**The September Program:**

The September program is brag night. All members are encouraged to bring in mineral specimens that they found in the field or purchased. We would also like to see if you crafted an item or purchased some treasure. We will have a table setup to show off your treasure.

**The Minutes of the Board Meeting May 15, 2015 briefly summarized.**

Called to order at 7:31pm by President Diane Kuzara at the Kuzara home. Present Don Baker, Tom Morris, Ken Slack, Doris Snyder, Leonard Swisher, Diane Kuzara, Pete Kuzara and Edie Esche. Minutes of last meeting read. Motion by Tom Morris and seconded by Don Baker to approve. Motion approved. Treasurer's report read. Motion to approve by Pete Kuzara seconded by Leonard Swisher. Motion approved.

**Committee Reports:**

**Membership:** Don Baker has 6 signed up for magnetic name tags.

**Rockpile:** Pete Kuzara asked if the mailing reached all.

Driveway sale has been slated for June 20<sup>th</sup> from 10am to 5pm at the Kuzara home.

The next meeting of the board will be June 12<sup>th</sup> at 7:30pm at the Kuzara home. All members are welcome.

Motion to adjourn by Pete Kuzara, seconded by Don Baker. Meeting adjourned at 8:07pm Diane Kuzara, President. Submitted : Edie Esche

**The Minutes of the General Meeting of May 19<sup>th</sup> 2015 Briefly Summarized:**

Called to order at 7:30pm by Diane Kuzara, President. Minutes of last meeting read. Motion to approve by Mike Bomba, seconded by Pat Rutkowski. Approved.

Treasurer's Report as of 4/30/15 read by Doris Snyder. Motion to approve by Tom Morris, seconded by Jim Heldenbrand. Approved.

**Committee Reports:**

Corresponding - Dan Gumina and Don Baker will

visit Bill Riddle.

Programs - Mike Bomba said program for June will be thumbnail rocks and minerals and a program on the American Flag by Leonard Swisher.

Field trips - Bill Barr will be leading a trip to Ohio for flint on June 6<sup>th</sup>. He asked that specimens be brought in for study.

Old Business - Our club meeting are moving to the Democratic Club in Taylor in September. If you do not need a reminder mailed sign up on sheet for this purpose.

Old Business - Nothing finalized on future Swap Meets. Some of the men are going to Belleville-Wayne Co. Fairgrounds to see about rental for our activities. Next Board meeting June 12, 2015 at the Kuzara's. Motion to adjourn by Bill Barr, Seconded by Ardeana Roberts. Adjourned 7:59pm.

### **MMLS Board Meeting of June 12, 2015 briefly summarized.**

Called to order by Diane Kuzara, Pres at the Kuzara home. Minutes and Treasurer's report of the last meeting read and approved. Tom Morris reported on material preparation for storage and driveway sale. Doris Snyder reported that Henry Porter and Susan Pennington wish to join the club. Approved. Rockpile has an August 14 deadline for September. Program Chair Mike Bomba said the September Meeting will be Brag Night. Dan Gumina reported on when the machines will be loaded for driveway sale. Nominating Committee for next year: Russ Ranker and Tom Morris. Next meeting of board September 11, 2015 at 7:30pm at Kuzara's. All are welcome. Adjourned at 8:32pm by Diane Kuzara Pres. Submitted by Edie Esche.

### **MMLS General Meeting of June 16, 2015 briefly summarized**

Called to order by Diane Kuzara, Pres. at 7:30pm. Minutes and Treasurer's Report read and approved. Bill Barr reported that the field trip to New York is put off till possibly fall. There will be no meeting of Mineralogy Study Group over the summer will start again in September. Membership approved for

Henry Porter and Susan Pennington. Mike Bomba will accept door prize donations. Having a swap at the Wayne County Fairgrounds in Belleville is still under consideration. Bill Barr is heading the committee. Nominating Committee for 2016 is Russ Ranker and Tom Morris. Membership approved to close the P.O. Box. We now use the Kuzara's address as the official address for MMLS. Noor Soboh was awarded a scholarship check. She will be Wayne State senior studying geology and environmental science. Adjourned at 8:18pm by Diane Kuzara, Pres. Next meeting at 7:30pm, Sept. 15, 2015 at Democratic Club in Taylor. Our door for entry is the door labeled office. Submitted by Edie Esche.

### **Welcome New Member**

Henry Porter  
15351 Windemere St.  
Southgate, MI 48195  
Tel. 313-694-7642

Susan Pennington  
2194 Charter St.  
Lincoln Park, MI 48146  
Tel. 734-536-4393  
[Susanpennington78@gmail.com](mailto:Susanpennington78@gmail.com)

### **Address Change**

Martin Gonzalez  
26640 Reeck Rd.  
Apt. 222  
Woodhaven, MI 48183

Tony Pomponio  
23336 Williamsburg Circle  
Apt. D  
Woodhaven, MI 48183  
Email: [djtonylamar@hotmail.com](mailto:djtonylamar@hotmail.com)

John Lindsay  
Email: [okami0807@live.com](mailto:okami0807@live.com)

## Dates to Remember

### Contacts for study groups

**Bead study, Diane Kuzara, 734-675-5237**

**Mineral study, David Esch, 734-665-5574**

**Wirewrap, John Lindsay, 734-604-8561**

**Lapidary work shop, Frank Konieczki**

**734-323-2218**

**Sliversmithing study group meeting is cancelled until further notice**

**September 2 Wire Wrap Class, Call John Lindsay for details**

**September 3 Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm**

**September 7 Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is \$2.50 for each evening. THIS IS LABOR DAY SO CALL BEFORE GOING.**

**September 11 Board Meeting and Rockpile Deadline.**

**September 15 General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.**

**September 17 Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.**

**September 17 Mineral Study Group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor,**

**October 1 Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm Mi. at 7:30pm.**

**October 5 Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is \$2.50 for each evening.**

**October 7 Wire Wrap Class, Call John Lindsay for details.**

**October 15 Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.**

**October 15 Mineral Study Group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor,**

**October 16 Board Meeting and Rockpile Deadline.**

**October 20 General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.**

## November 7 MMLS Auction

### Our Sister Club Events

September 11<sup>th</sup> thru 13<sup>th</sup> Toledo Gem and Rockhound Club, Stranahan Theatre Complex, 4645 Heatherdowns, Toledo, Ohio. For more information [www.rockyreader.com](http://www.rockyreader.com)

September 12<sup>th</sup> Kalamazoo Geological and Mineral Society third annual tailgate sale and swap. 7211 Oakland Dr., Kalamazoo, MI. For more information [KalamazooRockClub.org](http://KalamazooRockClub.org)

September 18<sup>th</sup> thru 20<sup>th</sup> Tulip City Gem & Mineral Club. Holland Civic Center, 150 W. 8<sup>th</sup> St., Holland MI for more information [Cistaror@mail.gvsu.edu](mailto:Cistaror@mail.gvsu.edu)

September 19<sup>th</sup> & 20<sup>th</sup> Livingston Gem & Mineral Society, Hartland Consolidated School, 9525 Highland Rd. Howell MI. For more information call Ed Oiler 810-241-8801

September 26<sup>th</sup> & 27<sup>th</sup> Grand Traverse Area Rock and Mineral Club For more information [www.terockhounds.com](http://www.terockhounds.com)

October 9<sup>th</sup> thru 11<sup>th</sup> Michigan Mineralogical Society, Macomb Sports & Expo Center, Building P, 14500 E. 12 Mile Rd., Warren, MI for more information [www.michmin.org](http://www.michmin.org)

October 17<sup>th</sup> & 18<sup>th</sup> Flint Rock and Gem Club, Carter Middle School, Clio, MI, for more information [www.flintrockandgem.org](http://www.flintrockandgem.org)

October 20<sup>th</sup> Indian Mounds Rock & Mineral Club Silent Auction Sale. Wesley Park Methodist Church, 1150 32<sup>nd</sup> Street S.W., Wyoming, MI. For more information [www.indianmoundsrockclub.com](http://www.indianmoundsrockclub.com)

October 23<sup>th</sup> thru 25<sup>th</sup> Central Michigan Lapidary & Mineral Society, Ingham County Fairgrounds, Main Arena, 700 E. Ash St., Mason, MI for more information [l.r.laylin@gmail.com](mailto:l.r.laylin@gmail.com)

November 9<sup>th</sup> Michigan Mineralogical Society (Auction), Cranbrook Institute of Science, 39221 Woodward, Bloomfield, MI for more information [Millie@gmail.com](mailto:Millie@gmail.com)

### From the Editor:

I always have to add my two cents in, so here goes. The driveway sale was successful. I would like to thank all that helped. I especially would like to thank Gary Slominski and a friend of his (I forgot his name, sorry !) for coming with his truck and taking some of the big equipment out of my garage. The big saw was sold thank God. Diane and I also took a load down to storage, heaven help you if you need to get something that is in the back of the unit. The September General Meeting will be Brag Night. I plan on bringing something to show and tell we will have a table to put out our treasures on.

Pete

### Fordite

by Layna Palmer, [Wire-Sculpture.com](http://Wire-Sculpture.com) 2-1-13

When Henry Ford first started rolling his products off the assembly line, he was asked what colors the vehicles came in. He replied, "Any color

you want, as long as it's black!" The painting process at this time was very time-consuming and tedious, taking several days to paint, with a brush, each layer of black lacquer and allow it to dry. The workers at Ford Motor would rub the entire chassis down with pumice after each layer as well. This process often caused a bottleneck at the factory and slowed production. There had to be a better way.

**Enter the DuPont Company** In 1924, DuPont, in conjunction with General Motors, developed a nitrocellulose paint lacquer that dried fast and came in several colors, the most popular of which was blue. They also developed a sprayer for the paint, virtually eliminating the brushing process. This was still an air-dried lacquer, but it was a faster process and sped up production at the factory. New paint came in the 1930s that was enamel instead of lacquer and it was baked on the car's frame. This paint lasted longer and retained its shine better over time. The automobile was mounted on an assembly stand and pulled into the painting room, sprayed by a person and baked in place, then pulled down the line for further assembly. The paint overspray on the walls and assembly stands would also be baked in place, making a very hard, thick product. Over time, the layers of paint would build up and make it difficult to pull the car chassis through the painting process and the workers would chip the paint off the metal sleds and walls. In the 1960s and 70s, acrylic paint was introduced that was more durable and weather-resistant than the enamel being used at the time, creating a buildup of vibrant colors in defined layers on the overspray. Workers noticed this material building up, and they would clear it away and take it home, forming it into shapes. Voila...Fordite, or Motor Agate, was born! That's recycling!

**About Fordite** Fordite is not really a gemstone, but the buildup of layer upon layer of acrylic enamel paint that has been baked over and over again, making it very hard and durable. The lapidary process for Fordite is similar to other stones, though care does need to be taken since it is in such defined layers and may have hairline cracks from the

removal process at the factory. I couldn't find any information about the hardness on Mohs scale, but it is a medium-hard material with some earlier specimens being a little softer due to the composition of the paint. You may be wondering as to the lead content and safety of the paint. The paint is an acrylic material that does contain lead. Lead is absorbed into our bodies through breathing, our mucus membranes, ingestion, and occasionally through cuts or scrapes. However, inorganic lead that is contained in paint is not easily absorbed through our skin, even through a cut or scrape, so unless you are going to eat it, there is really no danger in wearing a piece of Fordite.

There are several different types of Fordite, some having separated colors and regular banding with a primer layer in between while others are color on color with metallics and limited color ranges. Add in the color from drips and swirls, most likely from the walls and floor of the painting rooms, and you have very neat patterns.

**Where is Fordite from?** Fordite also comes from several different places. Great Britain has some beautiful specimens that not only have the opaque colors, but metallic and transparency to some of the layers too. Detroit Fordite, although not necessarily from Detroit, is American in origin and usually has a gray primer layer between the vibrant colors. Ohio Fordite is another American original and comes from the factories that painted vans, so the colors can be earth-tones of green and brown or the more vibrant colors of the 70s with yellow, orange and bright blues.

#### **Why Fordite is a Collector's Item**

Automobiles are no longer painted in this way today, because the painting process is automated and the chassis is charged to attract the paint molecules, so there virtually no waste. Because of this, Fordite is a finite material that is quickly running out, but what a great piece of automotive history!  
From the Livingstones 7/2015

## **Mineral hints at bright blue rocks deep in the Earth** from the internet.

By Simon Redfern Science writer

- 13 March 2014

- From the section Science & Environment  
Blue planet: Ringwoodite minerals reveal hints of what things might look like deep within the Earth  
Minerals preserved in diamond have revealed hints of the bright blue rocks that exist deep within the Earth. They also provide the first direct evidence that there may be as much water trapped in those rocks as there is in all the oceans. The diamond, from central-west Brazil, contains minerals that formed as deep as 600km down and that have significant amounts of water trapped within them. Researchers have published their findings in the journal Nature.

The study suggests water may be stored deep in the interiors of many rocky planets.

It looks like it's been to hell and back, which it has Prof Graham Pearson, University of Alberta, Canada.

Diamonds, brought to the Earth's surface in violent eruptions of deep volcanic rocks called kimberlites, provide a tantalising window into the deep Earth. A research team led by Prof Graham Pearson of the University of Alberta, Canada, studied a diamond from a 100-million-year-old kimberlite found in Juina, Brazil, as part of a wider project. They noticed that it contained a mineral, ringwoodite, that is only thought to form between 410km and 660km beneath the Earth's surface, showing just how deep some diamonds originate.

## **Buried oceans**

While ringwoodite has previously been found in meteorites, this is the first time a terrestrial ringwoodite has been seen. But more extraordinarily, the researchers found that the mineral contains about 1% water.

While this sounds like very little, because ringwoodite makes up almost all of this immense portion of the deep Earth, it adds up to a huge

amount of deep water.

Dr Sally Gibson from the University of Cambridge, who was not involved in the work, commented: "Finding water in such large concentrations is a hugely significant development in our understanding of the ultimate origin of water now present at Earth's surface."

Ringwoodite is thought to form between 410km and 660km beneath the Earth's surface.

The observation is the first physical evidence that water can be stored in the deep interiors of planets and solves a 25-year-old controversy about whether the deep Earth is dry, wet, or wet in patches.

Discussing his findings, Prof Pearson told BBC News: "The discovery highlights the unique value of natural diamonds in trapping and preserving fragments of the deep Earth.

"It's incredible to think that, as you hold this sample in your hand, the residual pressure at the interface between the diamond and the inclusion is 20,000 atmospheres."

Describing his diamond sample, he said: "It looks like it's been to hell and back, which it has."

## Blue planet

Prof Joseph Smyth of the University of Colorado has spent many years studying ringwoodite and similar minerals synthesised in his laboratory. He said: "I think it's stunning! It implies that the interior may store several times the amount of water in the oceans. It tells us that hydrogen is an essential ingredient in the Earth and not added late from comets.

The Brazilian diamond was sculpted by corrosive fluids on its way up to the surface

"This discovery implies that hydrogen may control the interior processes of the Earth just as it controls the surface processes, and that water planets, like Earth, may be common in our galaxy."

A key question posed by the observation is to understand the extent to which plate tectonics on Earth leads to oceans of water being recycled deep within our planet, and to predict the likely amounts of water trapped in other rocky planets.

Ringwoodite is expected to form deep in Mars as well, for example, where it sits against the metallic core. Grains of the same mineral synthesised in Prof Smyth's laboratory shine bright blue under the microscope. Given the new findings of ringwoodite's water-bearing capabilities, its abundance at depth, and its beautiful hue, the term "blue planet" seems even more appropriate for Earth.

## Anatomy of a Terror Bird

By Sindya N. Bhanoo N.Y/Times via Internet

After dinosaurs became extinct, the terror birds arrived. The fierce-looking creatures had sharp, hooked beaks and long hind legs, and could reach 10 feet in height. A new study describes the exquisitely preserved fossil of a South American terror and provides new details about its anatomy. Ninety percent of the fossil is well preserved. "This is the most complete skeleton found of any terror bird," said Federico Javier Degrange, a paleontologist at the National University of Cordoba in Argentina and one of the study's authors. With the fossil, found in Argentina, Dr. Degrange and his colleagues were able to reconstruct the bird's skull, voice box, trachea, eye bones and palate. Described in The Journal of Vertebrate Paleontology, the new species, called *Llallawavis scagliai*, was about four feet tall. The bird's inner ear structure suggests it was capable of hearing low-frequency sounds, just as running birds like ostriches and emus do. "They may have used low sounds to communicate with other individuals or for prey detection," Dr. Degrange said. "They may have been listening for small mammals like rodents." The fossil adds to the diversity of terror birds and raises new questions as to why they went extinct two and a half million years ago. Since the species varied in size and weight, terror birds may not have died out because of an inability to compete with placental mammals, as some researchers have suggested, Dr. Degrange said.

**THE MIDWEST MINERALOGICAL AND LAPIDARY SOCIETY (MMLS)** is an educational non-profit organization founded in 1956. The Society now has more than 200 members and is affiliated with the Midwest Federation of Mineralogical Societies and the American Federation of Mineralogical Societies. Significantly, MMLS has been recognized numerous times by the Midwest and American Federations with first place (gold level) awards in the annual All American Club Awards Program.

**PURPOSE:** The purpose of The MMLS shall be (1) to promote interest in and increase knowledge in the fields of mineralogy, geology, and paleontology, including lapidary and related arts; (2) to publish articles and information pertaining to these fields; (3) to encourage collections and to display specimens in these fields; and (4) to arrange field trips in support of the interests and activities specified.

**GENERAL MEETINGS:** the third Tuesday of each month, September through June, 7:30 p.m. at the Southgate Arena, 14700 Reaume Parkway, Southgate Michigan **GUESTS ARE ALWAYS WELCOME.**

**MEMBERSHIP:** Applications for membership can be obtained at any general meeting or from any MMLS member. **DUES:** Entrance fee - \$3.00; annual dues - \$15.00 (adult), \$1.00 (junior) on a year basis. Membership expires each Dec. 31.

**ANNUAL EVENTS:**

March – Rock Swap and Sale  
November – Auction

**STUDY GROUPS:** Special-interest study groups meet monthly, September though June. No additional fees are involved. Currently the following groups are active:

Advanced Lapidary	Faceting	Paleontology
Basic Lapidary	Wire Study	Bead Study
	Mineralogy	Silversmithing

**FIELD TRIPS:** Several one day field trips and one longer (one to two weeks) field trips are conducted each year. Mostly, these field trips focus on the collection of mineral and fossil specimens at quarries, mines, and other known collecting sites in the United States and Canada. Field trips are restricted to MMLS members.

**SCHOLARSHIP FUND:** MMLS has established a scholarship Endowment Fund which provides scholarships to qualified students enrolled in an accredited college or university in southeastern Michigan who have completed at least their junior year and have a major in geology, mineralogy, paleontology or lapidary and related arts.

**SEAMAN MINERAL MUSEUM:** MMLS has designated the A.E. SEAMAN Mineral Museum at Michigan Technological University, Houghton, Michigan, as it's "adoptive" museum, pledging to support it with gifts to the museum's endowment fund and the donation of mineral specimens and services.

**INTERNET WEB SITES OF INTEREST:**

Midwest Federation: [www.amfed.org/mwff/index.html](http://www.amfed.org/mwff/index.html)

American Federation: [www.amfed.org](http://www.amfed.org)

Midwest  
Mineralogical and  
Lapidary  
Society of  
Michigan

Dated Material



EDITOR  
20281 THOMAS  
BROWNSTOWN, MI  
48183

1993 - 1st Place (Large Bulletin) AFMS  
1991 - 1st Place (Large Bulletin) MWF  
1990 - 1st Place (New Editor) AFMS  
1990 - 1st Place (New Editor) MWF



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Bulletin Editor Contest Awards

*The ROCKPILE*

