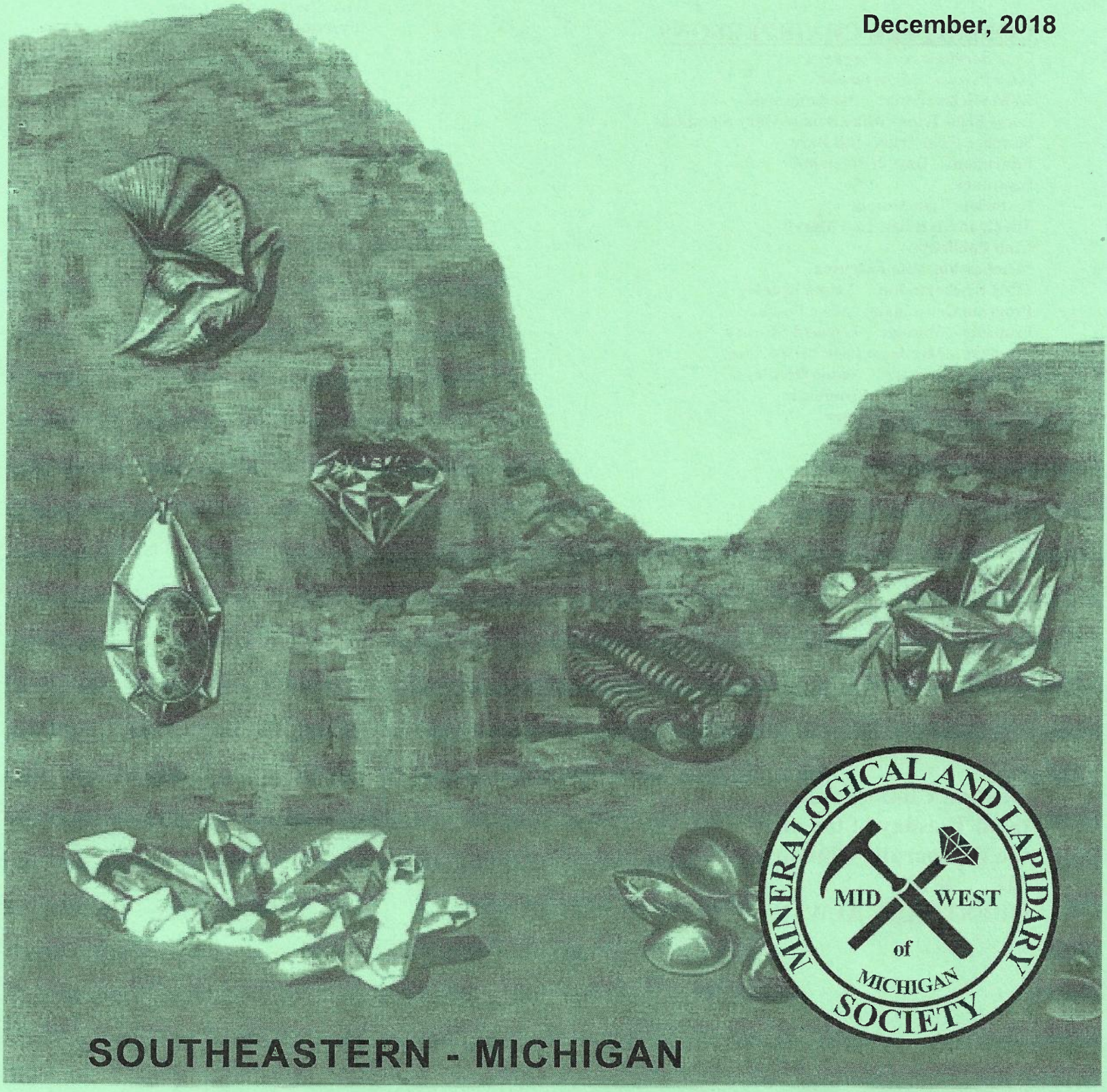
THE ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

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

December, 2018



SOUTHEASTERN - MICHIGAN

Midwest Mineralogical & Lapidary Society

2018 OFFICERS

President: Dan Gumina (313) 766-8944
Vice President: Diane Kuzara (734) 675-5237
Recording Secretary: Julie Knechtges (734) 444-9151
Treasurer: Doris Snyder (313) 291-2133
Corresponding Secretary: Julie Knechtges (734) 444-9151
Liaison Officer: Peter Kuzara (734) 675-5237

COMMITTEE CHAIRPERSONS

Club Services: Ana Ferguson
Door Prizes: Mike Bomba
AFMS Scholarship: Pat Rutkowski
Local Field Trips - Mike Bomba/Gary Slominski
Summer Field Trips - Bill Barr
Education: Dave Hendershot
Insurance:
Historian: Tom Morris
Michigan Material: Tom Morris
Club Publicity:
Membership: Ana Ferguson
MMLS Scholarship: Velma Bradley
Program Coordinator: Mike Bomba
Property – Storage: Leonard Swisher
Property – Meetings: Leonard Swisher
Sunshine Reporter: Velma Bradley
Refreshments: Gary Slominski
Web Site: Stacey Harper

ACTIVITIES

2018 Banquet:
2018 Swap: Lou and Cindy Talley
2018 Super Swap: Bill Barr / Tom Morris
2018 Auction: Dwayne Ferguson

The Rockpile Staff : Editor Peter Kuzara,
email: Kuzara1126@gmail.com 734-675-5237

MMLS website – www.mmls.us
Email - 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

STUDY GROUPS

Advanced Lapidary:
Basic Lapidary:
Bead Study: Diane Kuzara
Faceting:
Mineralogy: Bill Barr
Paleontology:
Wire Study: John Lindsay
Silversmithing:

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 Rothenthaler 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
Elspeth 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
Diane Kuzara 2015 - 16

THE ROCKPILE
December 2018 Volume LXII Issue 10

The Prez Sez:

Hello Rockhounds:
It's cold outside! It's now December and winter has arrived like a lodger with extra baggage. So as we prepare for the coming months, it's time to reflect on the close of this year. I'm proud to have been part of this club as President. I'm proud of the people who have remained active members in this club! I think each and everyone of us can be thankful for the accomplishments and creative expression of our hobby and club members this year! As outgoing president for these past two years, I maintain we pursue our mission..new members, new interests, new and old friends. Be sure to show up for the Christmas meeting. Bring a snack or dessert and a gift to share.

Dan

Merry Christmas!

Death leaves a heartache no one can heal, Love leaves a memory no one can steal!

Our condolences to Leonard Swisher on the passing of his son, Michael on October 27th. Michael helped out at our show for many years and we are sorry to hear of his passing. Our condolences also go out to Tom Morris on the passing of his sister Carolynn's son, Eric Moore, at the end of October. Many of our members know Carolynn as she attends many of our events. Eric was taken at 45 years of age of a massive heart attack.

Board Meeting October 12, 2018

Meeting was called to order at 7:40 pm. A motion was made and carried to accept the June meeting minutes as written by Secretary Julie Knechtges. A motion was made and carried to accept the Treasurers report for September 1-30. A motion was made and carried to present Liz Hartig, Judy Marks, Karl Schafer, Lori Haam, Bailey Hughes, Amy Officer, and Nicole Pappas for membership during the General Meeting, motion carried.Meeting adjourned at 8:27 pm motion made and carried.
Submitted by Julie Knechtges

General Meeting October 16, 2018

Meeting was called to order at 7:37 pm. A motion was made and carried to accept the June meeting minutes as corrected by Secretary Julie Knechtges. A motion was made and carried to accept the Treasurers report for September 1 -30 as read. A motion was made and carried to approve Liz Hartig, Judy Marks, Karl Schafer, Lori Haam, Bailey Hughes, Amy Officer, and Nicole Pappas as members. 2019 club candidates were announced. Motion was made and carried to adjourn meeting at 08:17 pm.
Submitted by Julie Knechtges

Elected Club Officers for 2019

President: Diane Kuzara
Vice President: Pat Rutkowski
Recording/Corresponding Secretary: Julie Knecthtges
Treasurer: Doris Snyder
Liaison Officer: Peter Kuzara

December Program: Annual Christmas Party
We will have our gift exchange and bring a small plate of holiday goodies to share.

Welcome New Members:

Steven Gumina
28252 Maplewood
Garden City, MI 48135

Ashley Chickonoski
4141 Westpoint St.
Dearborn Heights, MI 48125
Tel. 810-479-2179
Email: Ashleychickonoski@rockethomes.com

WIRE WRAP CLASS Anyone interested in a study group for wire wrap please contact John Lindsay for dates, time and more information.

NOTICE TO STUDY GROUPS IF THERE IS A CHANGE IN YOUR MEETING TIME OR PLACE, PLEASE LET THE EDITOR KNOW!!!!!

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

Our Club Activities

Dec. 3rd, 17th & 19th Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is $2.50 for each evening.

Dec. 6th & 20th Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.

Dec. 14th Board Meeting will be at the Kuzara's Rockpile Deadline

Dec. 18th General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.

Dec. 20th Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor Mi. At 7:30pm.

Jan. 3rd & 17th 2019 Bead study group will meet at the Kuzara's, 20281 Thomas, Brownstown at 7pm.

Jan. 7th, 21st & 23rd 2019 Lapidary work shop 2009 W. Michigan Ave., Ypsilanti, Mi., 7pm to 10pm. Fee is $2.50 for each evening.

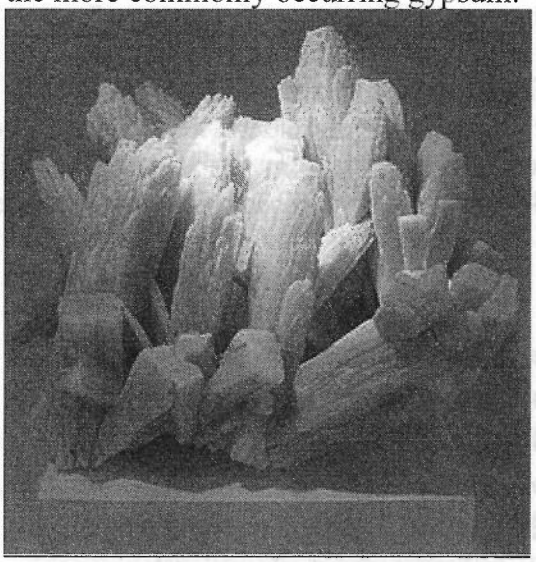
Jan. 11th 2019 Board Meeting And ROCKPILE DEADLINE. TBA

Jan. 15th 2019 General meeting will be held at the DEMOCRATIC CLUB OF TAYLOR, 23400 WICK RD., TAYLOR at 7:30pm.

Jan. 17th 2019 Mineral Study group will meet at Dave Esch's house, 227 Barton Shore Dr., Ann Arbor Mi. At 7:30pm.

Michigan Minerals Beginning with the Letter A Anhydrite $CaSO_4$.

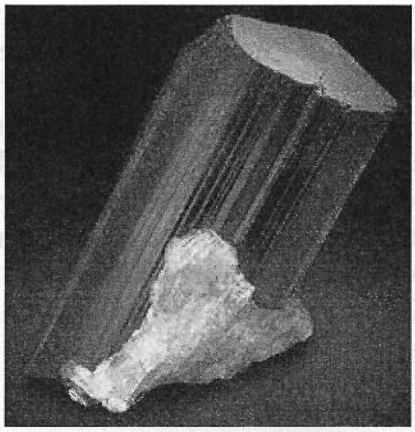
Anhydrite is a mineral—anhydrous calcium sulfate
Hardness is 3.5 on the mohs scale.
Color: The color is white, sometimes greyish, bluish, or purple.
When exposed to water, anhydrite readily transforms to the more commonly occurring gypsum.



Anhydrite, Chihuahua, Mexico

Occurrences In the following Michigan Counties: Bay, Berrien, Gratiot, Houghton, Isabella, Kalamazoo, Kent, Keweenaw, Macomb, Manistee, Marquette, Mason, Mecosta, Midland, Monroe, Muskegon, Newaygo, Ogemaw, Ontonagon, Osceola, St. Clair,and Wayne.
From the internet Wikipedia

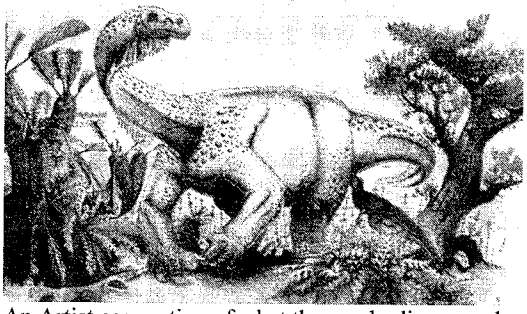
The state of Maine gemstone is Tourmaline



John Betts fine minerals

Maine designated tourmaline as the official state gemstone in 1971. All State Gemstones. Tourmaline ranges in color from black or white to vibrant shades of red, green, and blue. Individual crystals can be opaque to transparent and may be single or multi-colored. The best Maine tourmalines rival tourmaline from world-famous locations in California, Brazil, and the Himalayas.
From the internet

Jurassic giant: Huge new dinosaur species discovered in Africa



An Artist conception of what the newly discovered species Ledmahaadi mafube may have looked like.

Photo: Viktor Radermacher
Author: Doyle Rice, USA TODAY
Published: 11:35 AM EDT September 28, 2018
Updated: 1:53 PM EDT October 1, 2018

Fossils of a new, giant species of dinosaur have been discovered in South Africa, a study published Thursday reports. The creature, which lived some 200 million years ago, was about twice the size of a modern-day African elephant. It was also the largest land animal alive on the planet at that time, according to the study.

Known by the scientific name Ledumahadi mafube, it weighed over 26,000 pounds and stood about 13 feet high at the hips. The study was published in the peer-reviewed journal Current Biology.

Although it isn't the biggest dinosaur ever found, "It's the first true giant that evolves in a long line of dinosaurs called sauropod dinosaurs, said study co-author Jonah Choiniere, a paleontologist at the University of the Witwatersrand, in a statement.

Sauropods, weighing up to 66 tons, include well-known species like the brontosaurus. Thus, this part of South Africa was the origin of all the giant dinosaurs that evolved later, Choiniere said.

The new dino is a close relative of other massive dinosaurs from Argentina that lived at about the same time, which reinforces the idea that the supercontinent Pangaea was still assembled at that time. "It shows how easily dinosaurs could have walked from Johannesburg to Buenos Aires at that time," said Choiniere.

This particular animal was likely about 14 years old when it died.

The dinosaur's name is Sesotho for "a giant thunderclap at dawn."

Sesotho is one of South Africa's 11 official languages.

The discovery of the dinosaur underscores how important South African paleontology is to the world, according to South Africa's minister of science and technology Mmamoloko Kubayi-Ngubane.

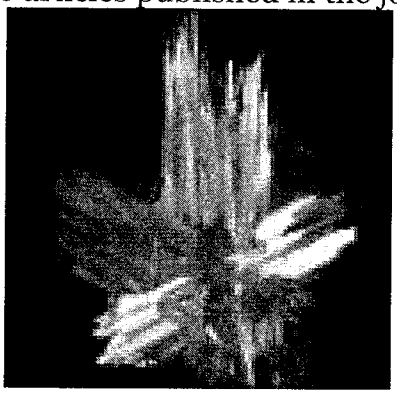
"Not only does our country hold the cradle of humankind, but we also have fossils that help us understand the rise of the gigantic dinosaurs," she said.

Taken from the Detroit Free Press 9/30/18

A Tiny Grain Helps to Reveal the History of a Rock

The University of Gothenburg. "A Tiny Grain Helps Reveal the History of a Rock." Science Daily, March 2013. www.sciencedaily.com/releasess/2013/03/111303255093702.htm via The Pterodactyl, February 2017

Researchers can use the mineral rutile to learn about rock types and their history. Two articles published in the journal



Geology now present a new application of a

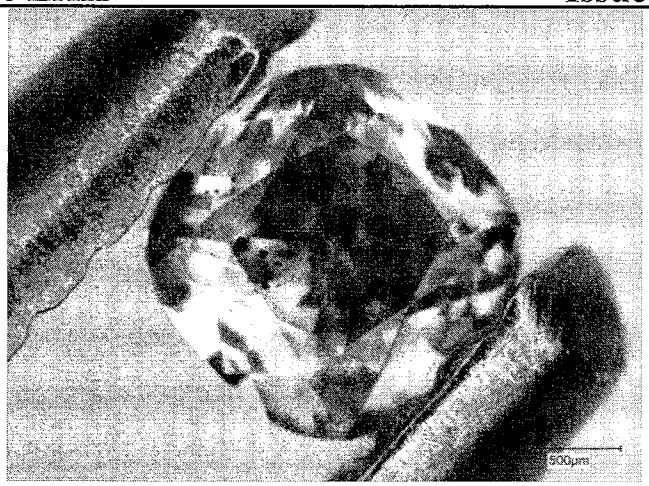
method for more easily tracing the mineral rutile. The co-authors of the articles are researchers at the University of Gothenburg. Rutile is used in ceramics and paints, but is particularly useful for finding out about the history of a rock. Where mineral deposits are found, rutile is often also present. The new methods therefore bring opportunities for strategies to find other deposits, such as gold.

Until now, rutile has been a relatively unknown mineral, despite not being rare. For example, rutile can be found on most sandy beaches around the world, including in Sweden. "It's incredible to see how little attention was paid to rutile until around five years ago," says geologist and researcher Thomas Zack, from the University of Gothenburg's Department of Earth Sciences, who has devoted much of his scientific career to studing the mineral. Now, geologists can identify rock types containing rutile and follow the changes in temperature and pressure that they have been exposed to throughout its history, even if rutile is barely visible to the naked eye. Previously, researchers had to investigate considerable more rutile-bearing samples in order to carry out analyses.

"But now we can identify the rock from which the rutile originates, even if we only have a tiny grain of rutile," adds Thomas Zack. The new method is called "Laser Ablation ICP-MS" and produces results much faster than previous methods. "In analytical terms, this is one of the most important analytical instruments at the Department of Earth Sciences here in Gothenburg," concludes Thomas Zack.

From The Living Stones 8/18

What makes diamonds blue? Boron from oceanic crustal remnants in Earth's lower mantle



A blue, boron-bearing diamond with dark inclusions of a mineral called ferropericlase, which were examined as part of this study. This gem weighs 0.03 carats.

Credit: Photo by Evan Smith/GIA

Blue diamonds -- like the world-famous Hope Diamond at the National Museum of Natural History -- formed up to four times deeper in the Earth's mantle than most other diamonds, according to new work published on the cover of Nature.

"These so-called type IIb diamonds are tremendously valuable, making them hard to get access to for scientific research purposes," explained lead author Evan Smith of the Gemological Institute of America, adding, "and it is very rare to find one that contains inclusions, which are tiny mineral crystals trapped inside the diamond."

Inclusions are remnants of the minerals from the rock in which the diamond crystallized and can tell scientists about the conditions under which it formed.

Type IIb diamonds owe their blue color to the element boron, an element that is mostly found on the Earth's surface. But analysis of the trapped mineral grains in 46 blue diamonds examined over two years indicate that they crystallized in rocks that only exist under the extreme pressure and temperature conditions of the Earth's lower mantle.

The research group -- which included Carnegie's Steven Shirey, Emma Bullock, and Jianhua Wang -- determined that blue diamonds form at least as deep as the transition zone between the upper and lower mantle -- or between 410 and 660 kilometers below the surface. Several of the samples even showed clear

evidence that they came from deeper than 660 kilometers, meaning they originated in the lower mantle. By contrast, most other gem diamonds come up from between 150 and 200 kilometers.

So how did the boron get down there if it is an element known for residing predominately in the shallow crust?

According to the hypothesis put forth by the research group, it came from seafloor that was conveyed down into the Earth's mantle when one tectonic plate slid beneath another -- a process known as subduction.

The new study proposes that boron from the Earth's surface was incorporated into water-rich minerals like serpentine, which crystallized during geochemical reactions between seawater and the rocks of the oceanic plate. This reaction between rock and water is a process called serpentinization and can extend deep into the seafloor, even into the oceanic plate's mantle portion.

The group's discovery reveals that the water-bearing minerals travel far deeper into the mantle than previously thought, which indicates the possibility of a super-deep hydrological cycle. "Most previous studies of super-deep diamonds had been carried out on diamonds of low quality," Shirey said. "But between our 2016 finding that the world's biggest and most-valuable colorless diamonds formed from metallic liquid deep inside Earth's mantle and this new discovery that blue diamonds also have super-deep origins, we now know that the finest gem-quality diamonds come from the farthest down in our planet."

Story Source:
Materials provided by Carnegie Institution for Science. Note: Content may be edited for style and length.

Journal Reference:
Evan M. Smith, Steven B. Shirey, Stephen H. Richardson, Fabrizio Nestola, Emma S. Bullock, Jianhua Wang, Wuyi Wang. **Blue boron-bearing diamonds from Earth's lower mantle**. Nature, 2018; 560 (7716): 84 DOI: 10.1038/s41586-018-0334-5

NOTICE: DUES ARE DUE

Dear MMLS member:
It 's that time again when you are asked to renew your membership for the year (2019) in the Midwest Mineralogical and Lapidary Society. (Membership runs from January through December each year.)

May we ask your cooperation by renewing now. Doing so will ease our Treasurer's job, save the cost of an extra mailing and assure your receipt of The Rockpile without interruption.

Just use the handy Membership Renewal Form. Complete the form, enclose your check made payable to MMLS and mail to our treasurer:

Doris Snyder
9728 Pardee
Taylor, Mi 48180

It's that easy! If you would like your membership card mailed to you, please include a SASE.

Midwest Mineralogical and Lapidary Society
Adult Dues: $15.00
Juniors (under age 18) $1.00
Yes I wish to renew my/our membership in MMLS for 2019 and continue to receive The Rockpile

Name(s)_____

Address _____
City _____
State _____ Zip _____

Phone (_____) _____

Email address _____

Dues paid after December 31st is subject to a $3.00 reinstatement fee. Add to your check.

Enclosed is my check payable to MMLS for $_____

Would you like your Rockpile sent to you by email?

Yes No

DO IT TODAY BEFORE YOU FORGET!!!!!!!

MERRY CHRISTMAS

MERRY CHRISTMAS

MERRY CHRISTMAS

MERRY CHRISTMAS

MERRY CHRISTMAS

MERRY CHRISTMAS

Doublets Triplets

As the name suggests, these are stones made up of two or three pieces. Some very attractive stones are very difficult or impossible to polish, while others, such as opal, occur in very thin seams and cannot be used unless made into a doublet.

Basically there are two kinds of doublet - one, as used for opal, where a piece of similar rock is cemented to the back for strength, and the other where a piece of clear quartz is cemented onto the face. A triplet is a combination of both of these - similar rock on the back and a quartz lens, as it is sometimes called, on the face.

Precious opal is found in thin seams, sandwiched between a colorless opal called potch. The potch is ground away to reveal the color, the surface of which is then lapped flat using 500 grit on a sheet of glass. Dark potch or black obsidian to be used for the background is also lapped flat, and the two surfaces are cemented together. A quartz lens can be cemented onto other rocks in a similar way, but being harder it will have to be flattened using coarser grit and ending on the 500.

Clear epoxy resin is ideal for cementing the surfaces together. Clean the surfaces first with acetone, warm the two pieces of rock, smear both with resin to which the catalyst has been added, and bring them together using firm pressure and marry them with a sideways, sliding movement to exclude all air and excess glue. A spring clothespin can be used to keep the two together until set, when the stone is ground and polished in the usual way.
A sobering thought to finish on is that with reasonable care, the polish on the gemstone will last for many thousands of years.
From the Rockpile How to Book, Erie shore, via The Trilobite

Geologist Jokes

Q. Why did the geologist take his girlfriend to the quarry?
A. He wanted to get a little boulder.
Q. What did the boy volcano say to the girl volcano?
A. I lava you!
Q: What do you do with dead geologists?
A: Barium.
Q: Why shouldn't you let a geologist drive your car?
A: Because they get hammered and stoned.
Q: What do you call a can of soft drink found in a conglomerate?
A: Coca-Cola Clastic.
Q: Why wasn't the geologist hungry?
A: He lost his apatite.

From Rock Trails 7/18

THE MIDWEST MINERALOGICAL AND LAPIDARY SOCIETY (MMLS) is an educational non-profit organization founded in 1956. The Society now has more than 100 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 (I) 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 Democratic Club of Taylor, 23400 Wick Rd., Taylor, MI 48180 **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 - Spring Rock Swap and Sale Fall- 2 Day SuperSwap and Sale November Annual Auction

STUDY GROUPS: Special-interest study groups meet monthly, September though June. No additional fees are involved. Currently the following groups are active: Basic Lapidary Advanced Lapidary Wire Study Bead Study Mineralogy Silversmithing (Silversmithing is now on hold until further notice.)

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 collecting 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, 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/mw1lindex.html American
Lands Access Association: http: //amlands.org

American Federation:
www.amfed.org

The Rockhound's 10 Commandments:

Thou shall not touch thy neighbor's minerals unless he places them in thy hands.
Thou shall not test the strength of crystals by pushing, squeezing or biting.
Thou shall not drop thy neighbor's fossils, for many do not bounce properly.
Thou shall not place thy neighbor's specimens in thine own pocket.
Thou shall not collect at a neighbor's land unless unless thy neighbor knowst he's there.
Thou shall not argue names of minerals too violently; for sometimes thou couldst be wrong.
Thou shall not climb above thy neighbor's head when on a field trip, lest thou art willing to spend the rest of the day digging him out.
Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.
Thou shall not encroach upon thy neighbor's diggin's, lest thy neighbor's hammer be dropped upon thee. J0. Thou shall not break uncollectable specimens.

Midwest
Mineralogical and
Lapidary
Society of
Michigan

EDITOR
20281 THOMAS
BROWNSTOWN, MI
48183

Dated Material

The ROCKPILE

Bulletin Editor Contest Awards

■

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