

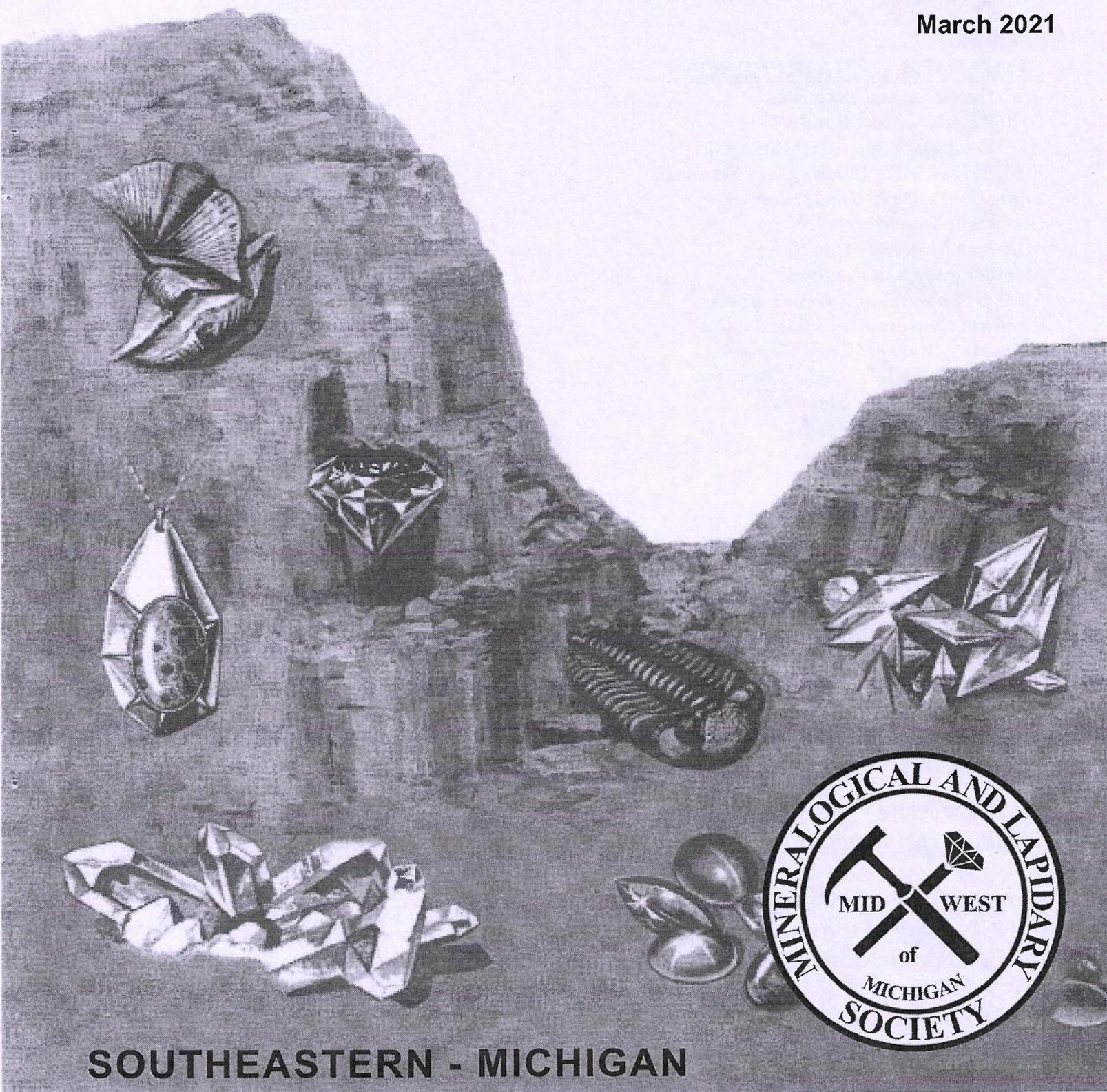
THE

# ROCKPILE

Official Publication of the Midwest Mineralogical and Lapidary Society

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

March 2021



SOUTHEASTERN - MICHIGAN



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## Midwest Mineralogical & Lapidary Society

### 2021 OFFICERS

President: Dan Gumina (313) 766-8944  
Vice President: Mike Bomba (313) 381-8455  
Recording Secretary: Lori Haam (313) 562-5097  
Diane Kuzara (734) 675-5237  
Treasurer: Doris Snyder (313) 291-2133  
Corresponding Secretary: Diane Kuzara (734) 675-5237  
Liaison Officer: Peter Kuzara (734) 675-5237

### COMMITTEE CHAIRPERSONS

Club Services: Ana Ferguson  
Door Prizes: Mike Bomba  
AFMS Scholarship: Pat Rutkowski  
Field Trips - Mike Bomba/Gary Slominski  
Education: Dave Hendershot  
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Michigan Material: Tom Morris  
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Program Coordinator: Mike Bomba  
Property – Storage: Gary Slominski  
Sunshine Reporter: Velma Bradley  
Refreshments: Gary Slominski  
Web Site: Stacey Harper

### ACTIVITIES

2021 Banquet: Dan Gumina  
2021 Club Picnic: Stacey Harper  
2021 Swap: Lou and Cindy Talley  
2021 Super Swap: Bill Barr  
2021 Auction: Dwayne Ferguson

The Rockpile Staff : Editor Peter Kuzara,  
email: [Kuzara1126@gmail.com](mailto:Kuzara1126@gmail.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

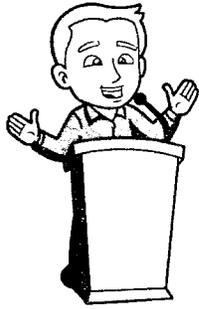
**GUESTS ARE ALWAYS WELCOME**

### STUDY GROUPS

Lapidary: Workshop at Frank Konieczki's  
Bead Study: Diane Kuzara  
Mineralogy: Bill Barr at David Esch's

### 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  
Dan Gumina 2017 - 18  
Diane Kuzara 2019 -2020



### From The President's Desk:

Hello Rockhounds:

It's February and it's cold and this coming month of March is probably going to be the same. We have all had to sacrifice time and energy, camaraderie in the last year and now a continuum into this one. Let's remember our families and

friends and keep them in our prayers. We are a tough group of people and we want to succeed. Let's return to the hobby we enjoy and the calm we deserve.

Thanks Pete for those wonderful, educational postings in the monthly edition of the Rockpile. That helps us get through times of no rock piles or field trips. Let's hear from you people if you have something productive and positive to share. A photo of something you have worked on ?? Be safe !

Dan.

### Lapidary Workshop

Reservations are required to attend. Please contact Frank Konieczki to make arrangements, 2009 West Michigan Avenue, Ypsilanti 48197, 734-323-2218.

If temperature falls to 20 or below the lapidary workshop will be closed.

### Sister Club Events

#### JACKSON SHOW CANCELLED FOR 2021

**April 8-10: WYOMING, MI** Indian Mounds Rock & Mineral Club Annual Show. Thurs./Fri 9:30-9; Sat 9:30-7. Rogers Plaza Town Center, 972 - 28th St. SW, Wyoming. Contact: Kreigh Tomaszewski, (616) 243-5851

**April 24-25: TROY, OH** Miami County Gem & Mineral Club Annual Club. Sat 10-6; Sun 10-4. Miami County Fairgrounds, 650 N. Co. Rd. 25A, Troy. Contact: Dewey Buck, (937) 308-3012; [deweybuck12@gmail.com](mailto:deweybuck12@gmail.com)

**April 24-25: CUYAHUGO FALLS, OH** Summit Lapidary Club Annual Show. Sat 10-6; Sun

10-5. Expo Center, 48 East Bath Rd., Cuyahugo Falls. Contact: Becky Kosco, (330) 808-8134

**May 6-9: KALAMAZOO, MI** Kalamazoo Geological & Mineral Society Annual Show. Kalamazoo Expo Center, 2900 Lake St., Kalamazoo. Contact: Wrifton Graham, (269) 615-7073; [wrifton@greatlakesgeneralstore.com](mailto:wrifton@greatlakesgeneralstore.com)

**ATTENTION: ALL THESE SHOW DATES WERE TAKEN FROM THE MIDWEST FEDERATION SHOW DIRECTORY. ALWAYS CHECK TO MAKE SURE THE SHOW IS GOING ON BEFORE MAKING THE TRIP.**

### New Year Reflections...Random Thoughts from an Old Timer:

When I was a child I thought "nap time" was a punishment. Now, as a grown up, it feels like a small vacation.

The biggest lie I tell myself is "I don't need to write that down, I'll remember it".

I don't have gray hair, I have "wisdom highlights". I'm very wise.

If God wanted me to touch my toes, he would have placed them on my knees.

Why do I have to press one for English when you're just going to transfer me to someone I can't understand anyway?

Of course, I talk to myself, sometimes I need expert advice.

At my age, "getting lucky" means walking into a room and actually remembering what I came in there for.

I have everything that I wanted as a teenager, only 60 years later:

I don't have to go to school or go to work, I get an allowance every month, I have my own pad, I don't have a curfew, I have a driver's license and my own car (if only I could remember where I parked it). All I needed to know about life I learned from Santa: Encourage people to believe in you, always remember who's naughty and who's nice, It's as much fun to give as to receive, some days it's ok to feel a little chubby, make your presence known, always ask for a little bit more than what you really

want, bright red can make anyone look great, wear a side belt and no one will notice how many pounds you have gained, don't pout, whenever you are at a loss for words just say "Ho, Ho, Ho!", and if you only show up once a year everyone will think you are important.

From *Good Times* Bi-weekly Newsletter, #199 & #205, Eastside Edition (Michigan), via source unknown.

From the Conglomerate 1/19

**Michigan Mineral Beginning with the Letter V: Vivianite** [ $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ ], The Mineral vivianite Vivianite is a well-known phosphate mineral, forming in highly aesthetic sharply colored crystals. Vivianite often forms with organic material such as shells and fossils, and may even form inside them. Vivianite is notorious for darkening upon exposure to light.



Color: Colorless, green, blue, dark green and dark bluish green

Hardness: 1.5 to 2 on mohs scale

Occurrence: Eaton County

From Internet, Mineral Data

### Washington State Gemstone: Petrified Wood

Petrified Wood is the US State Gemstone of Washington. It was adopted on March 12, 1975. Most of the petrified wood in Washington grew during the Miocene Epoch, some 5 -12 million years ago, when the state was swampy and mild, and played host to vast forests of cypress, oak, elm, and ginkgo trees.



From the Internet

### Geology of Leonardo's Virgin of the Rocks

by Steven Wade Veatch

from the Colorado Springs Mineralogical Societys Pick & Pack 05/2018, via AFMS Newsletter 06/2019



Leonardo da Vinci's Virgin of the Rocks (1483-1486) location: Louvre, Paris

Oil on panel transferred to canvas Height: 199 cm {78.3 in).

Width: 122 cm {48 in) Image is in the public domain.

Leonardo da Vinci (1452-1519), considered to be one of the greatest painters of all time, used his

knowledge of geology to inform his art. Leonardo was also noted for his work in sculpture, anatomy, mathematics, architecture, and engineering during the Italian Renaissance (about 1330 to 1450). From a geological perspective, Leonardo da Vinci's paintings present a realistic portrayal of nature. In his *Virgin of the Rocks* (1483-1486), on display in the Louvre in Paris, the geological accuracy is striking (Pizzorusso, 1996). The painting's subject is both the Virgin and the rocks. The Virgin sits in front of a grotto or cave. Various aspects of the grotto, according to geologist Ann Pizzorusso (1996), "are rendered with astounding geological accuracy. Leonardo has painted a rich earthscape of rock eroded and sculpted by the active geological forces of wind and water. Most of the rock formations ... are weathered sandstone, a sedimentary rock." What looks like basalt, an extrusive igneous rock formed by the cooling of lava, appears above Mary's head and at the top right of the picture. Leonardo even painted the columnar joints formed by the cooling of the rocks. Also, just above her head is a precisely painted seam between the sandstone and igneous formations, and a rock joint runs horizontally to the right of her head. Art historians believe that the landscape in this painting is not an actual place, but one conjured up by Leonardo's experience, understanding of geology, and observation (Issacson, 2017).

A second version of the painting, also called the *Virgin of the Rocks* (1495-1508), is exhibited in the National Gallery in London. This painting rails to depict such a faithful rendering of geology as the one in Paris. Despite decades of analysis by scholars, there are doubts that it is an authentic [Leonardo] painting, but rather a copy of the original painting by another artist.

Leonardo da Vinci was ahead of his time in his understanding of geology, and he recorded his observations in notebooks and journals (Bressan, 2014). After his death, his notebooks ended up on the bookshelves in libraries and private collections throughout Europe, while other notebooks disappeared into history (Waggoner, 1996).

[Leonardo] wrote in one of his notebooks, the *Codex Leicester*, about the fossils he found as he walked the countryside. [Leonardo] recognized that fossils were the remains of once-living organisms and relics of former times and other worlds-traces of a

past hidden to other thinkers of the time. [Leonardo] also observed that distinct layers of rocks and fossils covered large areas, and the layers were formed at separate times-not in the single biblical flood (Issacson, 2017). And centuries before Darwin, Leonardo conjectured through his understanding of rocks, fossils, and the slow processes of erosion and deposition, that the world is much older than what church fathers proclaimed (Jones, 2011).

From his studies of geology, Leonardo learned how the Earth works and improved the realism of his paintings. Leonardo da Vinci's observations of fossils found on the tops of mountains wore a path through his thoughts. Since fossils are found in the mountains, the surface of the Earth, Leonardo posited, has changed over time. For example, an ancient sea is now dry land (Jones, 2011). Leonardo concluded that as mountains formed, they lifted marine sediments carrying fossil-bearing rocks skyward to become mountain peaks. Today, geologists know that tectonic plates and other geological processes form mountains.

In another of his notebooks, the *Codex Arundel*, now housed in the British library, Leonardo describes graded bedding in layers of sedimentary rocks (Pedretti, 1998). He also had a basic understanding of the superposition of rock strata, where the oldest rocks in a sequence of sedimentary rocks are at the bottom. This concept would not be recognized until the second half of the 17th century when Danish geologist Nicolas Steno, carrying the light of learning, took up the subject in 1669, laying the foundation for modern stratigraphy and geological mapping (Capra 2013).

[Leonardo] never published his theories. He only wrote his observations in his notebooks, which ended up scattered or lost. For more than three hundred years, his notes were not part of the progression of science. It was left for future scientists to rediscover Leonardo's observations on the vastness of geological time, sedimentary layering, and the significance of fossils, and to make these discoveries part of science.

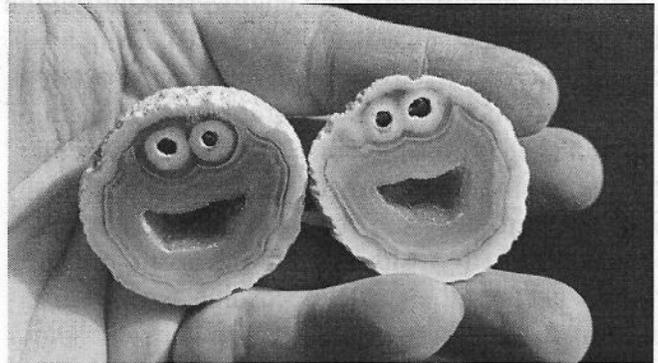
Leonardo da Vinci's endless curiosity and boundless creativity made him the quintessential Renaissance man. He was a keen observer of nature whose interest led him to paint nature not only beautifully, but also accurately.

**Works Cited :**

- Bressan, D. (2014, April 17). "The Renaissance's Contribution to Geology: Landscape Painting." Retrieved from Scientific American: <https://blogs.scientificamerican.com/history-of-geology/therenaissances-contribution-to-geology-landscape-painting/>
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- Pedretti, C. (1998). // *Cadice Arundel 263 net/a* British Ubrary. Florence: Giunti.
- Pizzorusso, A. (1996). "Leonardo's Geology: the Authenticity of the Virgin of the Rocks." *Leonardo*, 440.
- Waggoner, B. (1996, January 3). «Leonardo DaVinci." Retrieved from University of California Museum of Paleontology: <http://www.ucmp.berkeley.edu/history/vinci.html>

Ed: I have replaced the use of da Vinci as a surname with Leonardo, in brackets. It is not widely understood today, but referring to da Vinci as his surname is incorrect. If you use only a single name, refer to him as Leonardo, not as da Vinci. He was illegitimate and was never officially recognized by his father, so according to the practice of the time, Leonardo had no surname. Da Vinci means "from Vinci." In the Renaissance, it was a common practice to refer to persons who had no surname by the name of their place of residence or origin.

From THE BACKBENDER'S GAZETTE 8/19

**HAPPY ST. PATRICK'S DAY****Gemologist Discovers Rock That Looks Like Cookie Monster**

You never know what you're going to get when you crack open a geode-like rock called an agate, but a new specimen is even more surprising than usual: It looks just like Cookie Monster.

The agate, found in Soledade, a precious stone hotspot in southern Brazil, is a dead ringer for the blue, googly-eyed Sesame Street Muppet. After its owner, California mineral collector Mike Bowers, posted about the agate on Facebook, it went viral, with write-ups in newspapers from Australia to Israel to the United States.

"I didn't realize that Cookie Monster was so well known and part of the world cultural heritage!" Bowers told Live Science. He's since been contacted by the actor who plays Cookie Monster on "Sesame Street," he said.

The agate came to Bowers in November via Brazilian gemologist Lucas Fassari, who had acquired it in a batch of many agates from Soledade. Bowers immediately purchased the Cookie Monster agate, but didn't post it online until Jan. 16, as he was ill with COVID-19. The agate came to Bowers in November via Brazilian gemologist Lucas Fassari, who had acquired it in a batch of many agates from Soledade. Bowers immediately purchased the Cookie Monster agate, but didn't post it online until Jan. 16, as he was ill with COVID-19.

Agates are a form of quartz, the crystalline form of silicon dioxide, that develop within cavities in volcanic rocks. The cavities are formed by gas bubbles in hot lava. Over time, as the lava cools, water infused with silicon dioxide percolates through the cavities. As the water evaporates, the silicon dioxide is left behind on the cavity walls, creating colorful layers of crystals. The colors are caused by chemical impurities in the silicon dioxide and by the

spacing of the crystals.

Some agates completely fill their volcanic voids, but many leave small spaces inside, lined with sparkly, inward-facing quartz crystals. In the case of the Cookie Monster agate, these voids just happen to look like a pair of Muppet eyes and an enthusiastically grinning mouth.

"It is somewhat uncommon to find a face shape in agates, but in many instances it's like looking at the clouds. You kind of see a face," Bowers said. "What makes the Cookie Monster unique is there is just no doubt: Clear-cut, it is Cookie Monster, no explanation required."

Another unique feature of the Cookie Monster agate is that the face appears on both sides of the cut stone, Bowers added. Usually the voids are not lined up so neatly as to create a mirror image.

For now, Bowers said, he plans to keep the stone. It may eventually end up in a museum or in the hands of a high-end collector, he said.

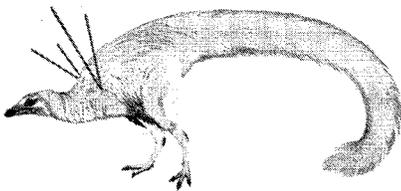
"It is totally unique and awesome to see everyone loving this stone as much as we do," he said.

**See also: Funny Weird Agate Specimens You Should See**

**Thunderegg: Ordinary Rocks With Crystal Surprise Inside!**

From the Internet GeologyIn

### **The Discovery of a Hairy Dinosaur the size of a chicken is like nothing seen in nature before, say paleontologists.**



Paleontologists have discovered a newly identified species of dinosaur called *Ubijara jubatus*,

which is believed to have lived around 110 million years ago in what is now the northeastern part of Brazil.

The chicken-sized dinosaur has "unusual" features, including a long mane of hair down its back and stiff ribbon-like structures projecting from its shoulders.

The team at the State Museum of Natural History in Karlsruhe, Germany, who found the fossil,

suspect that the ribbon-like structures were used either to attract potential mates or to intimidate foes.

Paleontologists have been astonished at discovering a new dinosaur species with a long mane of hair down its back and stiff ribbon-like structures projecting from its shoulders.

The dinosaur, named *Ubijara jubatus*, is believed to have lived around 110 million years ago in northeastern Brazil.

Its fossils were discovered by a team at the State Museum of Natural History in Karlsruhe, Germany, examining slabs of limestone collected from Brazil. Their findings were published this week in the scientific journal *Cretaceous Research*.

The researchers found that the dinosaur had two feet and measured at about 50 cm (19 inches) in length, which is roughly the size of a chicken. While it is impossible to know from the fossil, the *Ubirajara* may have also been colorful, researchers say.

But it is its other features that made it stand out. According to the study, the dinosaur also possessed two ribbon-like structures that protruded from each shoulder. The 15-centimeter long projections were most likely made from keratin, the same substance that makes up hair and fingernails.

"The ribbons that seem to come from the shoulders are like nothing I have seen in nature before," said David Martill, a paleobiology professor at the University of Portsmouth in England who helped publish the study, according to Reuters.

The researchers suspect the ribbon-like structures were possibly used to attract potential mates or to intimidate foes.

The remains also showed a well-preserved thick mane of fur running down the dinosaur's back, measuring 11 centimeters (4 inches) in length.

Although it might have looked like hair, the researchers believe it could have been a rudimentary form of feathers, called protofeathers.

"Likely from a distance, it looked hairy rather than feathery," Martill said, according to Reuters. "Likely, it had hair-like protofeathers over much of its body but they are only preserved along its neck, back and arms. The ones on its back are very long and give it a sort of mane that is unique for dinosaurs."

Birds evolved from small feathered dinosaurs called theropods who lived in the Jurassic period (about 165- 150 million years ago)

"There are plenty of other strange dinosaurs, but this one is unlike any of them," Martill added.

From Michigan Gem News 1/21

## Mineral Pyrite

By Dave Jacobson

This month we will take brief look at pyrite, iron sulfide, FeS<sub>2</sub>. If you have ever heard the term "fools gold" it is referring to pyrite, due to the minerals color. But once you have seen real gold in a quartz matrix you will not confuse pyrite with gold. Most people who collect minerals have one or two pyrite specimens in their collections as they make beautiful specimens. Pyrite is very common and is found in all mineral environments. Some minerals associated with pyrite are quartz, calcite, gold, galena, sphalerite, and fluorite. A lot of gold ore is massive quartz shot through with pyrite where the gold is not visible by eye. Beautiful pyrite specimens have been found in many locations in the world. Fossils from some locations have even been pyritized.

Pyrite is a sulfide mineral in the isometric crystal system. Most pyrite has a pale brass-yellow color with a metallic luster. Parallel striations are very common on the crystal faces. These striations are one of the features that help in the identification of pyrite. Pyrite has a brittle to conchoidal fracture with no cleavage. It has a hardness of 6 to 6.5, with a specific gravity of approximately 5. Its streak is greenish to brownish black. It is insoluble in hydrochloric acid, but powdered pyrite dissolves in nitric acid. When Powdered, pyrite, when heated gives off sulfur smell and leaves a small Metallic, magnetic globule.

Pyrite gets its name from the Greek, pyrites lithos, which means "stone which strikes fire. Pyrite will spark when hit with a piece of iron.

I used the following reference materials in preparing this article. Field Guide To Rocks And Minerals by Frederick H. Pough. Mineralogy For Amateurs by John Sinkankus. Simon & Schusters Guide to Rocks And Minerals. The Audubon Society Field Guide to North American Rocks and Minerals. Amethyst Galleries Mineral Gallery @

<http://mineral.galleries.com>).

From *Canaveral Moonstone*, October 2018

From The Quarry 10/2018

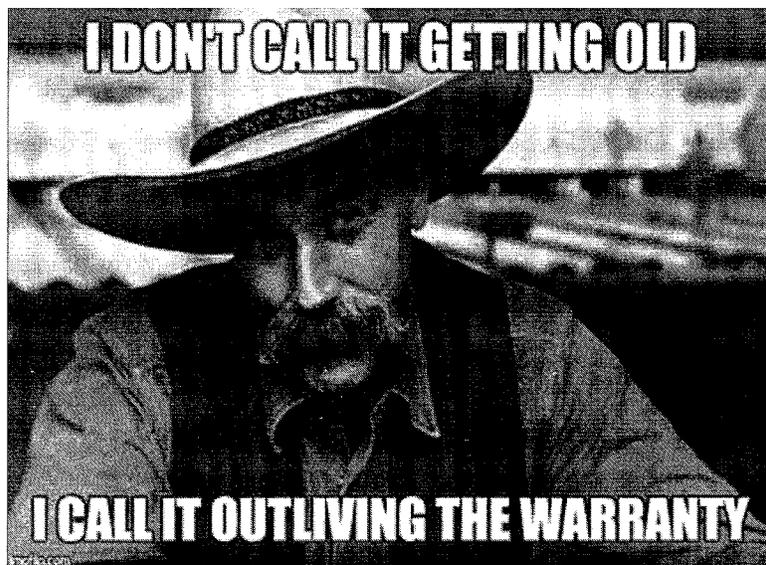
## PALEONTOLOGICAL DITTY

The first rockhound was a lizard,  
His rock collection was in his gizzard.  
Now they say there is no question  
These rocks helped with his digestion.  
But the motive I discover  
He was just an old rock lover.  
Since he did not have a shelf  
So he kept them in himself.  
This was years ago, I guess  
Hundred million, more or less.  
Still they find these polished stones  
Intermixed with dino's bones.  
This is proof of his affection  
For his private rock collection.  
Rockhounds haven't changed too far  
From that ancient dinosaur.  
Only difference I can spot  
Is the gizzard we ain't got.

-Gerald Clarke

HY GRADER via Peru Rocks and Minerals and published in the Nov. 1990 Strata Data.

From The Strata Data



*Stay safe*

**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 (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 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 - \$20.00 (adult), \$2.00 (junior) on a year basis. Membership expires each Dec. 31.

### **ANNUAL EVENTS:**

March - Spring Rock Swap and Sale, Banquet      Fall- 2 Day SuperSwap and Sale      November Annual Auction  
Yearly Picnic

**STUDY GROUPS:** Special-interest study groups meet monthly, September through June. Currently the following groups are active: Bead Study, Mineralogy, Wire Study is conducted on individual basis.

**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/mw11index.html](http://www.amfed.org/mw11index.html) American

Lands Access Association: <http://amlands.org>

American Federation:

[www.amfed.org](http://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.

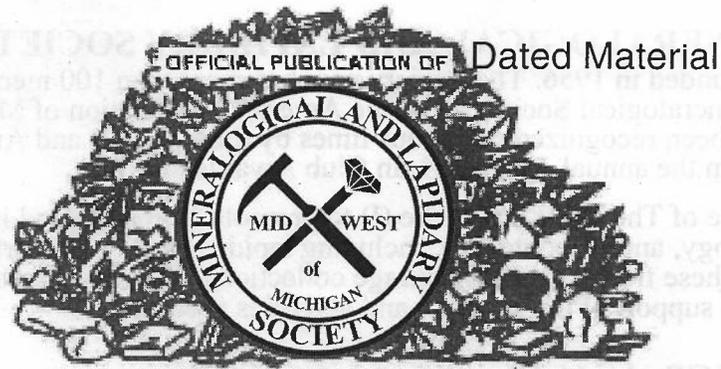
Thou shall protect thine eyes, hands & feet, so that they mayst enjoy many future field trips.

Thou shall not encroach upon thy neighbor's diggin's, lest thy neighbor's hammer be dropped upon thee.

Thou shall not break uncollectable specimens.

Midwest  
Mineralogical and  
Lapidary  
Society of  
Michigan

EDITOR  
20281 THOMAS  
BROWNSTOWN, MI.  
48183



*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