



A monthly publication of the Clear Lake Gem & Mineral Society

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| VOLUME 50 | May 2024 | NUMBER 5 |
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**NEXT MEETING:**

**TIME:**

**LOCATION:**

**Tuesday, May 21, 2024**

**7:00 p.m.**

**Helen Hall Library**  
**100 W Walker St.**  
**League City, TX 77573**

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| May Meeting                   | 1    | <div><u>May Monthly Meeting</u></div> <div>The May meeting speaker will be Sandra Hunter from Singing Stones. She will talk about Pink Chalcedony. You won't want to miss this exciting discussion. Christina Rankin will also speak about the month's Birthstones: Emerald, Agate, and Chrome Diopside.</div> |
| Board/General Meeting Minutes | 2-4  |                                                                                                                                                                                                                                                                                                                |
| Onyx                          | 5-11 |                                                                                                                                                                                                                                                                                                                |
| Gem and Mineral Shows         | 11   | <div>Scholarship applications were judged and the following winners were selected:</div> <div><div>Colton Klatt</div><div>Diana Paola De La Fuente</div><div>Samantha Supan</div><div>Molly Peplau</div></div>                                                                                                 |
| Club Officers                 | 12   |                                                                                                                                                                                                                                                                                                                |

MINUTES OF THE April CLGMS GENERAL MEETING

Clear Lake Gem and Mineral Society at League City Library on 04/16/2024.

On this night thirty members attended our meeting.

Our General Meetings are held on the third Tuesday of every month.

We are planning a field trip to the Livingston Rock Shop on Saturday; we still need a date to go.

School grants need to be submitted by September and then they will be given out in November.

There will be a Club Directory for members to reach out to other members who have questions in between meetings. We are going to pick a date to take pictures and add some questions to your information.

Fees: Members who are 70 years and older are exempt from fees. Single members pay \$10. Family members pay \$20.

May speaker will be Sandra Hunter from Singing Stones talking about Pink Chalcedony.

Christina Rankin will be speaking about the month's Birthstones Emerald, Agate, and Chrome Diopside.

MINUTES OF THE May CLGMS BOARD MEETING.

CLGMS Board Meeting                      May 6, 2024; 7:03 pm  
Panera Bread/El Dorado

Those in attendance David Tjiok, Jim Hawkins, Spencer Pearson, Monica Duran, Jeff Mills

6 applications received for scholarships, discussed updating number of applications in bylaws, what are considered acceptable programs of study for applicants and if they are going to college in or out of state

Money use ideas since the bank amount is rather large for a non-profit organization

- New machines
- Donate old machines
- Ideas of places to utilize to hold member classes, etc

Membership Directory and allows members to select what they want published in the directory or if they want to opt out entirely. Name, cell number/phone number, email, photo. Will have a digital copy available online in a members section only on the webpage and have to enter a code that gets updated.

Jim Hawkins is willing to teach members by appt only and for a small donation for machine maintenance, etc. Small groups only with a 3 person maximum.

General liability and what this covers for members

ENO/DNO policy

Federation policy

Field trips to cover members as long as they have paid membership.

Signed waivers where members understand there may be some risks while on field trips

After reviewing the 6 scholarship applications, the four recipients chosen were:

- Colton Klatt
- Diana Paola De La Fuente
- Samantha Supan
- Molly Peplau

The two applicants not chosen are:

- Emery Fitzharris
- Vanesa Medrano

Licensed Zoom Account for members to have access to general meetings remotely  
Purchasing a grand prize item at the upcoming Denver Gem Show

Purchased items for Hands on activities at Wegner Quartz Mine in Arkansas on recent April visit.

Discussed potential field trip locations:  
College station -Bedicites (similar to tektites)

Mason-Topaz at a ranch

Melothian kiln/pyrite/sharks teeth

Lano/Fredericksburg-granite (20 shades of granite in TX)

Turitella-ask Trina/Annabel

Pledge of Allegiance is in the bylaws for us to do at meetings, if we continue upholding bylaws need to bring flag/pole and it can be small or do we need to remove it from the bylaws entirely

Roberts Rules of Orders which are the parliamentary procedure for governing meeting

Meeting considerations:

1. No unruly children, please step outside with them if they are becoming a distraction especially when we have guest speakers, etc.
2. Get snacks/food before and after presentations only

Have a CLGMS picnic in the fall, can run gem mine for kids, can have a rock swap for adults, etc. Monica will check into dates for Walter Hall Park Pavilion

Signage for Gem Shows-feathers and what the signs should say to help attract more guests

David discussed 50<sup>th</sup> year lapel pins and will be given to honorary members, pd membership (up to four for a pd family membership), extras can be purchased at club cost. Vendors at shows??

Other items discussed were possibly getting club T-shirts (T-shirt design contest), hats  
Can find bylaws on the website

Also need to update school letters, envelopes, stationery, letterhead to have club logo, address, etc

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An e-mail was distributed 4/24/2024 regarding “Great Agate Still Available for Purchase”. This is buckets of agate available for sale from Teri Smith Rockhunts in Alpine TX. For \$150 plus \$25 shipping they ship them to you, saving you an 18 hour round trip drive and the effort to find your own. For more information see this:

<http://terismithrockhunts.com/rocks-for-sale/>

### **L&M Rocks from the 2024 Rock Show:**





# Onyx

**Taken 1/2024 by Christina Rankin from:**  
<https://geologyscience.com/>



Onyx is a type of chalcedony, which is a microcrystalline form of quartz. It is a banded variety of chalcedony that forms in concentric layers of different colors. Onyx typically has a black base with white or colored bands. The colored bands can range from shades of brown, red, orange, yellow, green, blue, and purple.

Onyx is found in various parts of the world, including Brazil, India, Madagascar, Mexico, Pakistan, and the United States. It has been used for thousands of years for decorative purposes, as well as for jewelry and other ornamental objects.

In ancient times, onyx was believed to have protective properties and was often used in talismans and amulets. It was also used in the creation of cameos and intaglios, which are engraved designs that are cut into the surface of the stone.

Today, onyx is still used for jewelry and decorative objects, and is valued for its unique beauty and distinctive banding. It is also used as a building material for floors, walls, and countertops, and is often used in high-end residential and commercial properties.

## Physical characteristics of Onyx

Onyx has several physical characteristics that make it a distinctive and valuable mineral:

- **Hardness:** Onyx has a hardness of 6.5 to 7 on the Mohs scale, which means it is a relatively hard mineral that can be polished to a high shine.
- **Color and banding:** Onyx is typically black with white or colored banding that runs parallel to the layers of the mineral. The colors of the bands can vary widely and can include shades of brown, red, orange, yellow, green, blue, and purple.
- **Transparency:** Onyx is generally translucent to opaque, which means that it allows some light to pass through, but not enough to see through the mineral.
- **Lustre:** Onyx has a waxy lustre that can be polished to a high shine, making it a popular choice for decorative objects and jewelry.
- **Density:** Onyx has a density of 2.6 to 2.7 g/cm<sup>3</sup>, which is slightly lower than the density of pure quartz.
- **Fracture:** Onyx has a conchoidal fracture, which means that it breaks into smooth, curved surfaces that resemble the inside of a seashell.

Overall, the physical characteristics of onyx make it a beautiful and distinctive mineral that is valued for its unique banding and its ability to be polished to a high shine.

## Chemical composition

Onyx is a type of chalcedony, which is a mineral that has a chemical composition of SiO<sub>2</sub> (silicon dioxide). Like other varieties of chalcedony, onyx is composed of tiny crystals of quartz that have formed together into a compact mass. However, onyx is distinguished from other types of chalcedony by its distinctive banding pattern.

Onyx can also contain small amounts of impurities, which can give it different colors and banding patterns. For example, onyx that is brown or red may contain iron oxide impurities, while onyx that is green may contain chromium or nickel impurities.



Overall, the chemical composition of onyx is relatively simple, consisting mainly of silicon and oxygen atoms arranged in a crystalline structure. However, its unique banding patterns and colors make it a highly prized mineral for decorative and ornamental uses.

## Formation and occurrence of Onyx

Onyx forms as a result of the deposition of silica-rich solutions in cavities within rocks. Over time, these solutions slowly evaporate, causing the silica to crystallize and form layers of chalcedony. The banding pattern in onyx is thought to result from changes in the concentration or composition of the silica-rich solutions during the deposition process.

Onyx is commonly found in association with other minerals, such as calcite, aragonite, and travertine, which are often found in caves and other underground formations. It can also form as a result of the replacement of other minerals, such as limestone or dolomite, by silica-rich solutions.

Onyx is found in many parts of the world, including Brazil, India, Madagascar, Mexico, Pakistan, and the United States. In the United States, onyx is found in California, Arizona, and Utah, among other places. It is often mined from underground deposits, although it can also be found on the surface in some locations. Once mined, onyx is usually cut and polished into decorative objects or used for jewelry and other ornamental purposes.

## Types of Onyx

There are several different types of onyx, which are distinguished by their color and banding patterns. Some of the most common types of onyx include:

**Black Onyx:** This is the most common type of onyx and is characterized by its black base color and white or light-colored banding.

**Sardonyx:** This type of onyx is characterized by its brown or reddish-brown base color and white or black banding. Sardonyx is often used in cameos and intaglios.

**Green Onyx:** Characterized by its green base color and white or light-colored banding.

**Blue Onyx:** Characterized by its blue base color and white or light-colored banding.

**Red Onyx:** Characterized by its red base color and white or light-colored banding.

**Yellow Onyx:** Characterized by its yellow base color and white or light-colored banding.

**Pink Onyx:** Characterized by its pink base color and white or light-colored banding.

**White Onyx:** Characterized by its white base color and black or dark-colored banding.

**Gray Onyx:** Characterized by its gray base color and white or light-colored banding.

Overall, the different types of onyx vary in their color and banding patterns, but they all share the distinctive layered structure that makes onyx such a unique and beautiful mineral.

## Uses of Onyx

Onyx has been used for various purposes throughout history, and its unique beauty and characteristics have made it a popular material for decorative objects, jewelry, and architectural features. Some of the most common uses of onyx include:

- **Decorative objects:** Onyx is often carved and polished into decorative objects, such as vases, bowls, figurines, and sculptures. Its unique banding patterns and color variations make it a popular material for decorative art.
- **Jewelry:** Onyx is a popular material for jewelry, especially in men's rings and cufflinks. It is often set in [silver](#) or [gold](#) settings and can be carved or polished into a variety of shapes.
- **Architecture:** Onyx is sometimes used as a building material, especially for decorative features such as columns, balustrades, and fireplaces. Its translucency can also make it a popular choice for lighting fixtures and other decorative elements.
- **Spiritual and symbolic uses:** Onyx has been associated with various spiritual and symbolic meanings throughout history. It has been used as a talisman for protection and to ward off negative energies, and it has been associated with the zodiac sign Leo and the planet Saturn.

Overall, onyx's unique beauty and characteristics have made it a popular material for a variety of decorative, architectural, and spiritual purposes.





# Mining and processing

The mining and processing of onyx involve several steps, including exploration, extraction, transportation, cutting, and polishing.

**Exploration:** The first step in mining onyx is to identify potential deposits. This typically involves conducting geological surveys and prospecting for areas where onyx is likely to be found.

**Extraction:** Once a deposit has been identified, the onyx is extracted from the ground using various mining methods, such as open-pit mining or underground mining. The extracted onyx is then transported to a processing plant.

**Cutting:** At the processing plant, the onyx is cut into blocks or slabs using saws and other cutting equipment. The size and thickness of the blocks or slabs will depend on the intended use of the onyx.

**Polishing:** After the onyx has been cut, it is polished to a high shine using a series of grinding and polishing wheels. This process can take several days to complete, depending on the size and complexity of the finished product.

**Finishing:** Once the onyx has been polished, it may undergo additional finishing processes, such as sandblasting, etching, or coating, to achieve the desired surface texture or color.

**Transport:** The finished onyx products are then transported to their final destination, such as a decorative object manufacturer, jewelry maker, or architectural firm.

Overall, the mining and processing of onyx require specialized equipment and expertise to ensure that the finished product meets the desired specifications for quality and appearance.



## Comparing Onyx mineral with other minerals

Onyx is a unique mineral that has distinctive physical and chemical characteristics that differentiate it from other minerals. However, there are some minerals that share some similarities with onyx. Here are a few comparisons:

3. **Onyx vs. [Agate](#):** Agate and onyx are both forms of chalcedony and have similar chemical compositions. However, onyx has a distinctive banding pattern of parallel layers, while agate has a more chaotic, swirling pattern.
4. **Onyx vs. [Marble](#):** Onyx and marble are both [metamorphic rocks](#), but they have different mineral compositions. Onyx is composed mainly of calcium carbonate, while marble is composed of calcite or dolomite. Onyx is also more translucent than marble and has a distinctive banding pattern.

5. **Onyx vs. Quartz:** Onyx and quartz are both types of silica minerals, but onyx has a higher density and hardness than most varieties of quartz. Onyx also has a distinctive banding pattern that is not present in most types of quartz.

6. **Onyx vs. Obsidian:** Onyx and obsidian are both volcanic glasses, but they have different chemical compositions. Onyx is composed mainly of calcium carbonate, while obsidian is composed of silicon dioxide. Onyx is also harder and more durable than obsidian.



7. **Onyx vs. Jade:** Onyx and jade are both popular materials for carving and jewelry, but they have different mineral compositions. Jade is composed of two different minerals, [jadeite](#) and [nephrite](#), while onyx is a form of chalcedony. Jade is also harder than onyx and has a distinctive green color.

Overall, while onyx shares some similarities with other minerals, its distinctive banding pattern and composition make it a unique and highly prized material for decorative and ornamental uses.

## Economic value

Onyx has a significant economic value due to its unique beauty and characteristics, which make it a desirable material for a variety of decorative and ornamental uses. Some of the factors that contribute to the economic value of onyx include:

1. **Rarity:** Onyx is a relatively rare mineral, and high-quality deposits are not common. This rarity makes onyx a valuable material for decorative objects, jewelry, and architectural features.
2. **Aesthetics:** Onyx has a distinctive banding pattern and a range of color variations, which make it a desirable material for decorative and ornamental purposes. The beauty of onyx has made it a popular material for high-end products such as vases, bowls, sculptures, and jewelry.
3. **Durability:** Onyx is a hard and durable material that can withstand wear and tear. Its durability makes it a popular material for architectural features such as columns, balustrades, and fireplaces.
4. **Spiritual and cultural significance:** Onyx has been associated with various spiritual and cultural beliefs throughout history, which has increased its value and demand in certain markets.

Overall, the economic value of onyx is driven by its unique beauty, durability, and rarity, which make it a desirable material for a variety of decorative and ornamental uses. The market demand for onyx is high, and it can command a premium price, especially for high-quality specimens.

### Info Table at the 2024 Rock Show



### ROCK, MINERAL, GEM, AND FOSSIL SHOWS

|                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                |
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| <b>Texas Mineral and Fossil Show</b><br>4/26/2024 - 4/28/2024<br>Lone Star Convention Center & Expo<br>9055 Airport Rd<br><a href="https://www.rmgmpromotions.com/">https://www.rmgmpromotions.com/</a>            | <b>Texas Mineral and Fossil Show;</b> 5/17/2024 - 5/19/2024<br>10:00 AM - 4:00 PM<br>Plano Event Center<br>Address: 2000 E Spring Creek Parkway, Plano, TX                                                                                                           | <b>Melbourne Gem Show</b><br>5/17/2024 - 5/19/2024<br>10:00 AM - 5:00 PM<br>Melbourne Auditorium<br>Address: 625 E Hibiscus Blvd, Melbourne, FL<br><a href="http://hrgemshows.com/">http://hrgemshows.com/</a> | <b>Sarasota Fall Gem Show</b><br>8/02/2024 - 8/04/2024<br>10:00 AM - 5:00 PM<br>Sarasota Municipal Auditorium<br>901 N Tamiami Tr<br>Sarasota, FL 34236<br><a href="https://hrgemshows.com/">https://hrgemshows.com/</a>                       |
| <b>St Petersburg Gem Show</b><br>8/30/2024 - 9/01/2024<br>10:00 AM - 5:00 PM<br>The Coliseum Ballroom<br>535 4th Ave N<br>St Petersburg, FL 33701<br><a href="https://hrgemshows.com/">https://hrgemshows.com/</a> | <b>Colorado Mineral and Fossil Fall Show</b><br>9/06/2024 - 9/14/2024<br>10:00 AM - 6:00 PM<br>Crowne Plaza DIA<br>15500 E 40th Ave<br>Denver, CO 80239<br><a href="http://www.coloradomineralandfossilshows.com/">http://www.coloradomineralandfossilshows.com/</a> | <b>Houston Gem, Mineral, Jewelry &amp; Fossil Show</b><br>December 10-12, 2024<br>Humble Civic Center<br><a href="http://www.hgms.org">http://www.hgms.org</a>                                                 | <b>51st Annual Gem &amp; Mineral Show. – Hosted by the Gem and Mineral Society of Louisiana.</b><br>December 21- 23, 2024<br>Alario Center<br>2000 Segnette Blvd.<br>Westwego, LA 70094.<br><a href="http://www.gmsola.org">www.gmsola.org</a> |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                           | <b>Member of</b>                                                                                                                                  |                                                                                                                                |                                                                                                                                      |
| <b>Next Annual Show</b><br>February 22-23, 2025<br>Pasadena Convention Center                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                           |                                                                  | <br>American Federation of Mineral Societies | <br>South Central Federation of Mineral Societies |
| CLGMS is on the Web:<br><a href="http://www.clgms.org">http://www.clgms.org</a><br><br>FACEBOOK: CLEAR LAKE GEM AND MINERAL SOCIETY.                                                                                                                                                                                                                                                                                              |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |
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| <b>Clear Lake Gem and Mineral Society, Inc</b>                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |
| MEMBER: American Federation of Mineralogical Societies and South Central Federation of Mineral Societies                                                                                                                                                                                                                                                                                                                          |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |
| PURPOSE: To promote education and popular interest in the various earth sciences; in particular in those hobbies dealing with the art of lapidaries and the earth sciences of minerals, fossils and their associated fields.                                                                                                                                                                                                      |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |
| <b>2024 OFFICERS:</b>                                                                                                                                                                                                                                                                                                                                                                                                             | President<br>Vice President<br>Secretary<br>Treasurer<br>Program Director<br>Board of Directors:<br><br>Newsletter Editor | Cynthia McGowan<br>David Tjiok<br>Christina Rankin<br>Monica Duran<br>VACANT<br>Sandra Christiansen<br>Jim Edwards<br>Donna Nelson<br>David Tjiok | 281-546-2662<br>832-423-4802<br>281-723-5408<br><br>Jim Hawkins<br>John Caldyne                                                |                                                                                                                                      |
| Annual Show 2024 ..... Sandra Christiansen<br>Constitution & Bylaws.....Jim Hawkins<br>Community Benefits.....Cristina Rankin<br>Historian.....David Tjiok<br>Publicity..... Annabel Brownfield<br>Facebook.....Cynthia McGowan<br>Membership.....Mike Flannigan<br>WWW System Admin.. .....Mike Flannigan<br>Refreshments.....Vacant<br>Education/Field Trips.....Annabel Brownfield<br>Field Trip Coordinator .....Casey Renner |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |
| Membership Dues Jan. to Dec. 2024: Adult \$15:00, Family Dues \$20.00 (4+) at same address. Send Dues to CLGMS, PO BOX 891533, Houston, TX, 77289                                                                                                                                                                                                                                                                                 |                                                                                                                           |                                                                                                                                                   |                                                                                                                                |                                                                                                                                      |