



A monthly publication of the Clear Lake Gem & Mineral Society

VOLUME 51

March 2025

NUMBER 3



**NEXT MEETING:** Tuesday, March 18, 2025  
**TIME:** 7:00 p.m.  
**LOCATION:** Helen Hall Library  
 100 W Walker St.  
 League City, Tx 77573

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**March MONTHLY MEETING**

*Learn About the International Space Station & Artemis Missions*  
 Tuesday, March 18th @ 7 pm  
 Helen Hall Library  
 100 W. Walker St.  
 League City, TX 77573

Jeff Mauldin started as an Attitude Determination and Control Officer (ADCO) for the ISS flight control team for many years. He then became the Group Lead of the Guidance Navigation and Control (GNC) flight controllers for Starliner and Artemis. He is now the Group Lead for the ISS Russian, Commercial (Starline), and Artemis Rendezvous flight controllers.

Monthly Meetings  
 3rd Tuesay of the Month  
[www.clgms.org](http://www.clgms.org)

MINUTES OF THE January 2025 CLGMS GENERAL MEETING

Clear Lake Gem and Mineral Society General Meeting at League City Library 2/18/2025.

20 members attended the meeting.

This meeting focuses on the upcoming show.

Our newsletter is approved.

The U-Haul truck has been reserved for getting our items from the storage area.

We will meet at 6pm to load up the truck and then go to Kelly's to eat, the club will pay for the volunteers who help load the truck.

Friday morning at 8am we will have doughnuts, kolaches, and coffee for volunteers who help set up for the show at the Pasadena Convention Center.

Sunday breaks down after the show and we will go to Mamarita's and the club will pay for dinner volunteers who help with loading the truck after the show.

Volunteers are still needed to help with the show.

MINUTES OF THE March CLGMS BOARD MEETING.

Clear Lake Gem and Mineral Society Board Meeting at Panera Bread on 3/4/25.

Seven members attended this meeting.

Show recap: We definigly need more volunteers for the next show.

Mike will redo the volunteer's sheet and upload it to our website.

We will be able to still have our three scholarships in the fall.

The parking area was only half of what we usually have.

Vendors liked getting the awards that we gave them.

Our dinosaur speaker was a great hit for both the kids and adults. She will be asked to come back and be a guest speaker during one of our general meetings.

We are looking to get more signs and maybe more feathers.

Monica will look at getting prices on shirts and hats for the club.

March speaker: Jeff Mauldin Learn about the International Space Station & Artemis Missions.

Christina will speak about the Birthstone of the Month Aquamarine and Bloodstone.

### **Scholarship Application now available**

**Purpose:** To fund courses in Geology, Mineralogy, Geophysics or Paleontology at any accredited university or college as part of a course of studies in Earth Sciences. Amount: \$2,000 each (Subject to change).

In 2024 we had 6 applicants and the 4 winners received \$2,000 each. In 2023 we had 11 applicants and the 5 winners received \$2,000 each. In 2022 we had 11 applicants and the 6 winners received \$2,000 each. In 2021 we had 3 applicants and the 3 winners received \$2,000 each. We had 2 years where nobody applied.

The application is now available on the website. <https://www.clgms.org/page6.html>

### **Upcoming events - We are looking forward to the following programs.**

More information coming soon.

### **Field Trips Announcement**

Currently – no field trips are scheduled.

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## **Green Obsidian**

Taken from the 2/2014 MSDS Mineral Minutes newsletter  
Mineralogical Society of the District of Columbia

### **Ever Come Across Green Obsidian?**

By Andrew D. Thompson

For many mineral club members, one of the practical signs that they've heard a great presentation is if they leave the monthly meeting fired up to learn more about the mineral or geology discussed and perhaps with a desire to get into the field to do some major collecting. The January 2014 MSDC presentation by Smithsonian geologist Tim Rose, hit the nail on the head. He unpacked for us the geological makeup of the mysterious stone masks of the Teotihuacan culture whose capital was 30 miles northeast of today's Mexico City. What

makes them mysterious is they were created by people about whom we know very little. So how the masks were used and what functions they served have puzzled anthropologists for decades. We do know they were master builders whose two large pyramids are still standing, and some evidence of hundreds of smaller pyramids and precise city planning in many ways equaled that of the Egyptians. After thriving for nearly five centuries, the people of Teotihuacan seemed suddenly to have abandoned their city in 550 CCE and disappeared from history.



Keep in mind that this was the largest city in Mesoamerica, about 20 square miles in size and it housed well over 100,000 people. Yet, they left behind no writings, names of rulers or explanations of their identity, history, rituals or values. That vacuum of information ultimately resulted in Tim and his colleague, anthropologist Dr. Jane Walsh, traveling to Teotihuacan, most recently in late 2013, to research the geology and anthropology of the culture's famous stone masks. Fortunately, they gained access to more than 60 masks housed in the National Museum of Anthropology and the National Museum of Teotihuacan. Their careful research documented that the masks were composed exclusively of four soft forms of stone: serpentine, travertine, limestone and listwanite, a carbonate altered form of serpentine. None of the masks were made of obsidian because, as a hard rock, it would be extremely difficult to carve into a facial mask. Tim and Jane also tentatively concluded the pattern of holes that had been drilled into the masks provided a means to dangle ornaments and then perhaps the masks served as a center piece in a larger artistic construction.

What I want to share with readers in this article, however, is a fact peripheral to the talk but which captured my imagination. Tim made reference to the Teotihuacan people mining and working with obsidian. Like the opulent city itself, this obsidian was unlike any other obsidian known throughout the Americas. It had a green or green-gold tint which, during those centuries, was highly prized by people throughout Mesoamerica and even to the far north, beyond the Rio Grande. Some say it was the production of this green colored obsidian, made into cutting blades, weapons, scrapers, jewelry, etc., which subsidized the entire Teotihuacan culture, including its massive buildings and murals which covered the interior walls of seemingly every household. What we do know is its production contributed to the economy, even if it was secondary to the role of agriculture. The irony is that this culture had no metal, and yet, its obsidian blades were sharper and superior to any metal or steel blades that existed then or even today. In other words, this green obsidian was their "metal" and it was as good as gold for trading purposes with other cultures.

Say the word "obsidian" and what normally comes to mind is a jet black glassy stone found as the residue of volcanic lava. It is felsic, meaning it has a composition similar to granites which includes feldspar and silica. It forms when a flow of lava suddenly cools and forms black glass which is easily knapped into objects with extremely sharp edges. That cooling is relatively sudden because it takes place above ground (extrusive) rather than below ground (intrusive).



Throughout the history of our planet, volcanoes have been pervasive and so black obsidian is fairly common. Geologists have mapped the ancient lava flows of Mesoamerica and

found evidence of multiple lava flows, with later flows burying earlier flows. Some geologists have argued that in Mesoamerica, however, there is a limited quantity of black obsidian, compared to its more abundant presence elsewhere. But, they have found three sites in the Valley of Mexico. Each mine is near Teotihuacan and they have yielded the extremely rare, high quality green obsidian. Its non-black color and sometimes chatoyant quality is due to its almost total lack of any inclusions or impurities. As a result, it looks a bit similar in color to green glass, except the obsidian typically has very few bubbles

and is usually a deep green color. Glass, of course, does not allow knapping. Aside from these three mines, the green obsidian found elsewhere is of lower quality, is milky in color and its edges, when backlit with a strong light, are not translucent. When knapped into blades, the higher quality obsidian had edges which were sharper and more lasting than any material known at the time.

The elite rulers of this culture kept total control over its production and traded extensively throughout Mesoamerica. Its importance is appreciated when we realize that any piece of this green obsidian, when it began to lose its sharpness, would be repurposed from, say, precision cutting to less demanding scraping, and so on, down through a hierarchy of practical uses. Today, those mines continue to yield green obsidian though nowhere near in the quantities produced by the people of Teotihuacan. Steel has taken over these practical needs for today's householders but mineral collectors, of course, prefer obsidian.

For some anthropologists, this green obsidian has yielded some fascinating clues about the culture. While studying the contents of the burial sites and correlating their content with the dating of the burials, they believe they found something very interesting. For the earlier centuries, they found green obsidian in the form of little figurines or trinkets, equally, in the graves of the rich and the poor. But in the final decades of the culture, immediately prior to 550 CCE, they found little or no green obsidian in the graves of the common people. Forensic research on the bones and teeth indicated that those same common people suffered severely from malnutrition, while the bones of the elite showed no such degradation. That finding, when placed side by side with the discovery of the charred remains of the city's elite housing and temples, has raised a question: was the collapse of the culture was due to a revolt by the lower class? Given the buildings of the commoners showed no sign of burning or destruction, it lends some credibility at least to raising the question.

Unbelievable as such self-destructive behavior may at first appear to be, I remember as a young adult in 1968 seeing houses, food stores and shops in downtown DC being set afire when the local residents became very frustrated. So the anthropologists' suggestion that Teotihuacan may have collapsed under political and economic strains may not seem as farfetched as it may first appear. There were also signs of additional social strains, including severe climate change, such as drought, in the early decades of the 6th century. There was also evidence that over the centuries, the Teotihuacan regime had totally deforested their world by burning limestone 24-7 to manufacture the plaster used on their temples and in the interior walls of all their houses. Those murals portrayed the rituals of the priests and elite rulers and so seemed to serve as a political message, validating and reinforcing the authoritarian rule of the upper class. Whatever the factors contributing to the downfall of this culture, one important relic is the green obsidian they have left behind.

Speaking for myself, I've never come across a piece of Teotihuacan green obsidian. But a wonderful aspect of collecting, whatever the desired object, is that once your mind has a few clear pictures of what you are looking for, you've got a far better chance of finding it and learning more about it as researchers such as Tim and Jane continue to contribute to our understanding.

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### SCFMS and MEMBER CLUB GEM SHOWS

<p>Ada Gem, Mineral, and Fossil Club Show, 3/28/2025 - 3/29/2025          Fri 8:00-6:00 Sat 9:00-5:00;          Pontotoc Country Agri-Plex- Building #1;          1710 North Broadway, Ada, OK  <a href="https://www.freewebs.com/agmfc">https://www.freewebs.com/agmfc</a></p>	<p>Chihuahuan Desert Gem &amp; Mineral Club Show;          4/18/2025 - 4/20/2025          Fri/Sat: 9:00 – 6:00          Sun: 10:00 – 4:00          Alpine Civic Center,          801 W Holland Ave; Alpine, TX  <a href="https://www.facebook.com/Chihuahuan-Desert-Gem-Mineral-Club-300125913343720/">https://www.facebook.com/Chihuahuan-Desert-Gem-Mineral-Club-300125913343720/</a></p>	<p>Texas Mineral and Fossil Shows          Conroe Event          4/25/2025 - 4/27/2025          10:00 a.m. - 6:00p.m.          Lone Star Convention Center &amp; Expo          9055 Airport Rd,          Conroe, TX  <a href="https://www.rmgmpromotions.com">https://www.rmgmpromotions.com</a></p>	<p>Mount Ida Gem, Mineral &amp; Craft Show; 5/9/2025          No venue given, 1210 Hwy 270 E, Mount Ida, AR;          Fri. 10-5, Sat. 9-5, Sun. 9-5;  <a href="https://m.facebook.com/groups/547163697692749/?ref=share&amp;mibextid=NSMWBT">https://m.facebook.com/groups/547163697692749/?ref=share&amp;mibextid=NSMWBT</a></p>
<p>Texas Mineral and Fossil Shows          Plano Event          Center, 2000 E Spring Creek Pkwy, Plano, TX;          5/16/2025 -5/18/2025;          Website:  <a href="https://www.rmgmpromotions.com">https://www.rmgmpromotions.com</a></p>	<p>Fort Worth Gem and Mineral Club          Annual Show and Sale          5/24/2025- 5/25/2025          Sat 9:00a.m. - 5:00p.m.          Roundup Inn          Will Rogers Memorial Center          3401 W Lancaster,          Fort Worth, TX  <a href="http://www.fortworthgemandmineralclub.org">www.fortworthgemandmineralclub.org</a></p>	<p>JOGS Tucson Fall Gem &amp; Jewelry Show; 8/28/2025 - 8/31/2025;          10:00 am – 6:00 pm;          Sun: 10:00am 4:00pm, Tucson          Expo Center, 3750 E Irvington Rd,          Tucson, AZ;  <a href="https://jogsshow.com/">https://jogsshow.com/</a></p>	<p>Colorado Mineral and Fossil Fall Show; Palmer Events          Center, 900 Barton Springs Rd, Northglenn, CO;          9/5/2025          - 9/13/2025; Website:  <a href="http://www.coloradominerallandfossilshows.com">http://www.coloradominerallandfossilshows.com</a></p>

### Member of

#### Next Annual Show

TBA, February 2026

Pasadena Convention Center

CLGMS is on the Web:

<http://www.clgms.org>

Facebook:

<https://www.facebook.com/clgms>



American  
 Federation of  
 Mineral Societies

South Central  
 Federation of Mineral  
 Societies

**Clear Lake Gem and Mineral Society, Inc**

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.

2025 OFFICERS:	President	Cynthia McGowan	281-546-2662
	Vice President	David Tjiok	832-423-4802
	Secretary	Christina Rankin	281-723-5408
	Treasurer	Monica Duran	
	Program Director	Christina Rankin	281-723-5408
	Board of Directors:	Sandra Christiansen	Jim Hawkins
		Spencer Pearson	John Caldyne
Donna Nelson		Vacant	
	Newsletter Editor	Heather Althoff	

Annual Show 2021 .....	Sandra Christiansen	Membership.....	Mike Flannigan
Constitution & Bylaws.....	Jim Hawkins	WWW System Admin.. .....	Mike Flannigan
Community Benefits.....	Christina Rankin	Refreshments.....	Vacant
Historian.....	David Tjiok	Education/Field Trips.....	Annabel Brownfield
Publicity.....	Annabel Brownfield	Field Trip Coordinator.....	Cassie Renner
Social Media.....	Cynthia McGowan		

Membership Dues Jan. to Dec. 2025: Adult \$15:00, Family Dues \$20.00 (4+) at same address.  
 Send Dues to CLGMS, PO BOX 891533, Houston, TX, 77289