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1<sup>st</sup> Place, 2019 SCFMS Mini-Bulletin  
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## Smithsonite

By Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Last month we addressed Hemimorphite. This month we will look at Smithsonite, a mineral that is often confused with Hemimorphite. Up until the early 1800s, Smithsonite and Hemimorphite were thought to be the same mineral. That mineral was called Calamine. In 1802, James Smithson, a prominent British chemist and mineralogist, determined that calamine consisted of two distinct zinc-based minerals. In 1832, Francois Sulpice Beudant, a French mineralogist and geologist, named Zinc Carbonate ( $ZnCO_3$ ), one of the two minerals in calamine, as Smithsonite in honor of James Smithson.

Smithsonite has a Mohs hardness of 4.5, a white streak, and a specific gravity of 4.4 to 4.5. It is found in a variety of colors including white, green, blue, purple, pink, and yellow. It belongs to the trigonal crystal system, but rarely forms crystals. Smithsonite is generally found as a botryoidal massive formation. Smithsonite's primary use is as a Zinc ore.



As mentioned, James Smithson was a British chemist and mineralogist. He was never married and had no children. His will specified his estate was to pass to his nephew. However, his will provided that if his nephew were to pass without heirs, his estate was to be given to the United States with the stipulation the estate was to

be used “to found in Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men”. Upon Smithson’s death, his estate did pass to his nephew, but the nephew died six years later without heirs. The estate was thus used as the seed money to build the Smithsonian Institution into the Museum system it is today.

#### References:

- Geosciences and Geological and Petroleum Engineering, <https://ggpe.mst.edu/mineral-collection/>
- Minerals.Net, Smithsonian, <https://www.minerals.net/>
- Wikipedia, Smithsonian, <https://en.wikipedia.org/wiki/>

## Smithsonite versus Hemimorphite

Why was it that Smithsonite and Hemimorphite were thought to be the same mineral that was named Calamine? Let’s start with a visual comparison:



Smithsonite



Hemimorphite

I think it is safe to say that they look similar. If you look at the shade of blue on the left of the Smithsonite, it definitely looks like the Hemimorphite. Both are botryoidal. You may just have to take my word for it, but the size of the botryoidal balls (grapes – botryoidal means bunch of grapes) are similar.

Chemically, both Smithsonite and Hemimorphite are zinc-based minerals. Smithsonite is a zinc carbonate, while hemimorphite is a zinc silicate. You would think that would be an easy difference to be identified, but remember that they were thought to be the same mineral until 1802. Science didn’t have a lot of tools back then. Both Smithsonite and Hemimorphite have “uneven fracture”. Both have a “brittle” tenacity. Both have a “white” streak. They compare favorably on the Mohs hardness scale; Smithsonite’s hardness is 4.5 while Hemimorphite is the same to a little harder (4.5 to 5.0). Smithsonite is translucent while Hemimorphite is translucent to transparent. That is a lot of similarities. However, one of the biggest differences is the specific gravity. Smithsonite is denser having a specific gravity of 4.4 to 4.5 while Hemimorphite’s specific gravity is 3.516 - 3.525. You would think that you could tell the difference by just lifting pieces of the same size, but it would be easy with a balance scale, some string, and a cup filled with water.

## From the Desk of the President

Margaret Kolaczyk, AFMS President 2021-2022  
From the November 2021 AFMS Newsletter



It is a start to a new year for the American Federation of Mineralogical Societies. To start things off I thought I would introduce myself. I joined the Amador County Gem and Mineral Society in 1996. By the second meeting I attended, I was asked to handle programs for the society's meetings. It was a challenge, but I was lucky enough to be able to work with the person who had handled this position. From that position, I have held the positions of Vice President, President, Treasurer, Education, Publicity, and a few others for my society. At present, I am the Federation Director for my society.

At the California Federation of Mineralogical Societies level, I was the Treasurer, 2nd Vice President, 1st Vice President, and President. Committee Chairs I have held are the 2015 CFMS Show, Golden Bear, Long Range Planning, Boundaries, and Rules. For 16 years I was an instructor for the Earth Science Program. At the AFMS level, I held the position of 3rd and 2nd Vice President, President Elect, and now President. In 2015 Jay Bowman asked if I would be the Judges' Training Instructor. I was surprised and knew this was an honor. Jay started a revolution in how judging is done, and I am a firm believer in Jay's philosophy. My hope is to do my best for AFMS.

I have made some committee chair changes. I have made these changes because the present chairs know how these committees work and it is their expertise they can share. Each committee is a team and the more the team members understand how their committee works, the stronger the committee will be. From past experience, I know it is great to have someone else who knows what needs to be done.

I wish to Thank Jennifer Haley for stepping in for me at the AFMS 2021 Show in Big Piney, Wyoming. While I was at the show, I had to leave early due to a death in the family. I did arrive early and was able to work with the Sublette County Rock Hounds setting up the tables for the show. I had a wonderful time helping and you could not ask for a nicer group of people. Thank You

## Shows and Activities – Upcoming Show and Activity Dates

Please note that many shows are being canceled in response to health concerns associated with COVID-19  
Check with the show contact to verify the show status

### December 2021

- Dec 3-5, El Paso, TX, El Paso M&GS, El Maida Temple, [ekosturakis@gmail.com](mailto:ekosturakis@gmail.com)

### January 2022

- Jan 15-16, Fredericksburg, TX, Fredericksburg Rockhound, Lady Bird Johnson Park, [frankrowell@gmail.com](mailto:frankrowell@gmail.com)
- Jan 21-23, Tyler, TX, East Texas Gem and Mineral Society, Tyler Rose Garden Center, [mlkilanski@yahoo.com](mailto:mlkilanski@yahoo.com)
- September-October 2021 SCFMS Newsletter
- Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

## VISIT AN AREA CLUB

[Arlington Gem & Mineral Club](#), meets the 1st Tuesday of each month at 7:30 pm, 1408 Gibbins, Arlington, TX  
[Cowtown Gem, Mineral, & Glass Club](#), meets the 2<sup>nd</sup> Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth  
[Dallas Bead Society](#), meets 1<sup>st</sup> Saturday of each month at 10:00 am at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX  
[Dallas Gem & Mineral Society](#) meets the 3<sup>rd</sup> Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop)  
[Dallas Paleontological Society](#), meets 2<sup>nd</sup> Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244  
[Fort Worth Gem & Mineral Club](#), meets 4<sup>th</sup> Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth  
[Oak Cliff Gem & Min Soc.](#), meets the 4<sup>th</sup> Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas,  
[Pleasant Oaks Gem & Mineral Club](#), meets the 1<sup>st</sup> Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland  
[Wild West Bead Society](#), meets 3<sup>rd</sup> Tuesday of each month at 6:30, Wild Beads, 2833 Galleria Dr., Arlington, TX

## PRESENTATION REVIEW

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

After a short discussion to review which video topic to watch, the club chose to view a lecture from the Great Courses video about The Himalayas, Mountains at Earth's Roof. The Tibetan Plateau has all 450 mountains in the world that are 7 kilometers or taller in height. The highest of these is Mount Everest at 29,029 ft above sea level. However, when compared to the height above surrounding land-forms, Denali (aka Mount McKinley) is 18,000 ft above the surrounding terrain while Mount Everest is only 12,000 ft above the Tibetan Plateau. Further, Mount Chimborazo in Ecuador at only 20,564 ft above sea level, yet is 6800 feet further from the center of the Earth than Mount Everest due to the bulge in the Earth's diameter due to centrifugal force. The Tibetan plateau has more than 15,000 glaciers. The ice and run-off from these glaciers provide water to about 50 % of the people on Earth. Mount Everest and other mountain peaks in the Himalayan Mountains are still being forced upwards by the collision of the and Indian plates. The collision caused the land to buckle and rise upwards. Additionally, the Indian plate is pushing under the Asian plate adding still more height and increasing the thickness of the continental crust under the Plateau. Erosion is eating away at the height of the mountain peaks, but the ongoing tectonic plate collision is adding to the height of the mountain. For Mount Everest and several other peaks, the tectonic plates are pushing Mount Everest and many other peaks up faster than the erosion reduction, thus the peaks are growing in height.

## CHRISTMAS POTLUCK DINNER and PARTY



What: our Annual  
POGMC Christmas  
POTLUCK DINNER  
and PARTY



When: December 2, 2021  
starting at 7:00. **That is 30  
minutes earlier than normal**



Where: Garland Activities  
Building, 713 Austin,  
Garland TX

WHAT TO BRING FOR  
DINNER: Bring a dish to share.  
The Club will provide the meat  
dish. Appetizers, Salads,  
Vegetable, Desserts, Drinks

WHAT TO BRING FOR THE  
GIFT EXCHANGE WITH  
STEALING: Hobby related,  
\$15 - \$20 price range. Need an  
idea? Rocks, Slabs, Tools,  
Books, or similar. Try Rock  
Barrel or Half Price Books.



## PRESIDENT'S MESSAGE

Don Shurtz, POGMC President

I thank you for your confidence in accepting the slate of officers presented at the last meeting. My main desire for this year is to grow the club. We are not the smallest club in the SCFMS, but close to it. We have the desire to continue as a club. That would be a lot easier if we had a larger, active membership base. In the meantime, let's have a Christmas Dinner and Party.

## CLUB OFFICERS FOR 2022

President: Don Shurtz  
1st VP, Programs: Carolyn Grady  
2nd VP, Field Trips: Judy Wilson  
Secretary: Amy Vulk  
Treasurer: Ling Shurtz  
Editor: Don Shurtz  
Contact us by e-mail: don.shurtz@gmail.com or [L.SHURTZ@gmail.com](mailto:L.SHURTZ@gmail.com)

## NOVEMBER MEETING MINUTES

POGMC President Ling Shurtz called the November 4, 2021 club meeting to order at 7:30 pm.

We recited the Pledge of Allegiance to the Flag

**Quorum:** We have a quorum

**Sunshine Report:** Carolyn's eye surgery went well.

**Visitors:** There were no visitors tonight

**Minutes:** We reviewed the minutes of the October meetings as printed in the November 2021 Chips and Chatter. Hatt made a motion to accept the minutes. Amy seconded the motion. The motion passed

**Treasurer's Report:** The treasurer's report was deferred to the December Meeting

### Old Business:

The next Dallas IGEM show, as shown on the IGEM website, is January 21 – 23, 2022 at Market Hall. Plan for setup on January 19.

### New Business:

- The club's Post Office Box has been renewed
- Ling asked Don to lead a discussion on officers for 2022. The list presented for consideration was Don for President, Carolyn for 1<sup>st</sup> Vice President, Julie for 2<sup>nd</sup> Vice President, Amy for Secretary, Ling for Treasurer, and Don for Editor. Warner made a

motion to accept the list as proposed. Carolyn seconded the motion. The motion passed. The club then voted to approve the new officers for 2022. The new officers assumed their duties.

- We reviewed the shows for November:
  - Nov 6-7, Amarillo, TX, Golden Spread GM&TS, Amarillo Civic Center, [facebook.com/Golden Spread-Gem-Mineral-and-Treasure-Society](https://www.facebook.com/Golden-Spread-Gem-Mineral-and-Treasure-Society)
  - Nov 6-7, Round Rock, TX, Paleo Society of Austin FOSSIL FEST – CANCELLED
  - Nov 6-7, Midland, TX, Midland G&MS, Bush Convention Center (formally Midland Center), [midlandgemandmineral.org/](https://www.midlandgemandmineral.org/)
  - Nov 12-14, Humble, TX, Houston G&MS, Humble Civic Center, [www.hgms.org](http://www.hgms.org)
  - Nov 20-21, Mesquite, TX, Dallas G&MS, Mesquite Convention Center, [dgmscontracts@yahoo.com](mailto:dgmscontracts@yahoo.com)

### Break:

Presentation – DVD from the Great Courses Series titled The Himalayas, Mountains at Earth's Roof

**Raffle:** We had the door-prize raffle.

Don adjourned the meeting at 9:00 pm.

## DECEMBER MEETING

The next club meeting will be December 2, 2021, at the Garland Activities Building starting at 7:00 PM. NOTE THE EARLY START TIME! This will be our annual Christmas potluck dinner and party. The club will provide the meat dish, everyone should bring a dish to share (appetizers, vegetables, desserts, drinks). Also, we will have a gift exchange – hobby-related gifts of \$15 to \$20 value. The gifts will be distributed randomly, but if you like a previously picked gift, rather than taking a gift from under the tree you can steal one of the previously selected gifts. See you at the December meeting at 7:00 for socializing. Dinner will start at 7:30. Come to have fun, eat, and talk.

## VISITORS ARE ALWAYS WELCOME

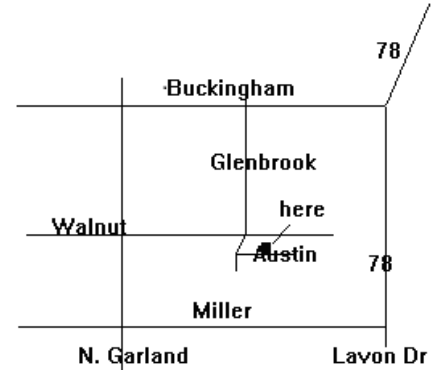
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**PLEASANT OAKS GEM and MINERAL CLUB of Dallas**



Meetings  
 First Thursday of each month, 7:30 PM  
 Garland Women’s Activities Building  
 713 Austin St., Garland, TX  
 (Northeast corner of Austin & Glenbrook)

Membership  
 Single Adult: \$16.50,  
 Junior: \$5.00, Family: \$27.50  
 (Plus badge fee for new members)



**PURPOSE:** The Pleasant Oaks Gem and Mineral Club of Dallas is organized for charitable and educational purposes to promote interest in the various earth sciences, particularly those hobbies dealing with the art of cutting and polishing gemstones, the science of gems, minerals and metal crafts, as well as their related fields. Pleasant Oaks Gem and Mineral Club of Dallas is a Section 501(c)(3) not-for-profit organization

CHIPS AND CHATTER  
 Pleasant Oaks Gem & Mineral Club  
 PO Box 831934  
 Richardson, TX 75083-1934

To

**VISITORS ARE ALWAYS WELCOME**

**Our next meeting is on December 2 and will start at 7:00 PM – note the early start time!  
 The meeting will be our annual Potluck Dinner and Christmas Party with a gift exchange.**

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