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1st Place, 2022 SCFMS Mini-Bulletin
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Petrified Wood

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Petrified Wood – almost every rockhound will have a piece of petrified wood in his/her collection. Here in Texas, there are multiple places where petrified wood can be found. In fact, petrified wood can be found on every continent of our world. We have some very nice petrified wood in Texas, but most of us dream of having a colorful piece from Arizona from a place near the Petrified National Forest.

One of the primary requirements for wood to petrify (be turned into a fossil) is that the tree must be covered with water, mud, or volcanic ash to reduce the exposure of the wood to free oxygen. If there is free oxygen in the area, it will cause the wood to rapidly decay. It is not surprising that this is also a requirement for any organism to fossilize. The tree must be covered in a wet environment as water is essential to carry the minerals that form the petrified tree. Volcanic ash is an excellent material for forming petrified trees as it is rich in silicate minerals. Through a process known as permineralization, the silicon minerals replace the wood, often doing the replacement of the trees a cell at a time. The process can preserve the cell and cell wall allowing for a very detailed petrified replacement of the tree. The process at such a detailed level lets us see the tree's growth rings, bark, and even the microscopic cells. This detail often allows a trained individual to fully identify the tree from which the petrified wood came. As with many silicate minerals, trace elements in the environment can cause differing colors in the final petrified wood. Iron is one of the most common trace elements and can cause yellow, red, brown, and black colors along with shades of purple and blue. Chrome can cause green colors to form. Manganese can cause blue, purple, brown, and black colors. Uranium can cause yellow and green colors. The trace elements in the environment may change during the petrification process so that the colors can reflect the stages of the process.



On a topic near and dear to the heart of Texas rockhounds, our state rock is petrified palm. Note that I did not say “petrified palm wood” – a palm is not a tree – it belongs in the grass family. A tree would have a bark layer on the outside, but a palm does not have bark. What appears to be a bark on palms is actually the residue of dried layers of fronds that are shed annually. A palm does not have growth rings – the diameter of the trunk remains the same throughout the lifetime of a palm. In a tree, the tubes that carry the nutrients to and from the ground to the leaves (xylem and phloem) are in the cambium layers – the layers that form the rings and allow the tree to increase its diameter as it grows. For palms, the xylem and phloem are arranged in bunches – they form the tubes that we see in a cross-section of a palm trunk (think of a stalk of celery). However, the palm can be petrified by the same process as a tree, so we have petrified palm for our lapidary work.

References:

- Wikipedia, various topics, <https://en.wikipedia.org/wiki/>
- ArborCare, <https://www.arborcare.com/blog/petrified-wood-trees-that-turn-to-stone>
- Flickr, https://www.flickr.com/photos/piedmont_fossil/53451478053/
- University of Florida Blogs, <https://blogs.ifas.ufl.edu/duvalco/2024/01/23/are-palm-trees-really-trees>

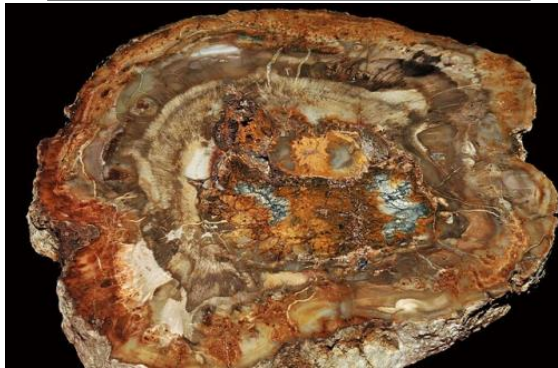
Picture: Arizona Petrified Wood, James St. John, CC BY 2.0, via Wikimedia Commons, <https://commons.wikimedia.org/wiki/>

PETRIFIED WOOD FROM AROUND THE WORLD

EUROPE: Petrified Oak Tree Stump, Brighton, UK



ASIA: Petrified wood slab from China



AFRICA: Petrified Tree, Tsitsikamma National Park, South Africa



AUSTRALIA: Petrified Peanut Wood, Parr State Conservation Area, New South Whales, Australia



NORTH AMERICA: Petrified Palm from Texas



SOUTH AMERICA: Petrified Wood from Brazil



ANTARCTICA: Petrified Wood and Trees

There are numerous pictures and articles on the Internet of petrified wood and trees from Antarctica. However, all of the photos that I found were copyright. A link to some of the pictures follow:

<https://www.thefossilforum.com/topic/17790-antarctica-petrified-wood/>

<https://www.mindat.org/locentries.php?p=36&m=8018>

<https://www.atlasobscura.com/articles/the-dead-forests-of-antarctica>

<https://www.indiatoday.in/education-today/gk-current-affairs/story/fossilized-forest-found-in-antarctica-1088602-2017-11-17>

For more examples, search Google for petrified wood or [etrified tree from Anarctica, then select images

Editor: All of the pictures on this page were from Wikimedia Commons, <https://commons.wikimedia.org/wiki/>. Pictures are used under the [GNU Free Documentation License](#), version 1.2 or later.

FEDERATION NEWS

From the Desk of the [AFMS] President

Roger Burford, from the April 2024 AFMS Newsletter



To continue my input from the last newsletter, I want to provide more information on what the designation of a national monument means to us as rockhounds and to other activities as well, National Monuments are designated to protect public lands and waters that have cultural, historic, ecological, and scientific importance to ensure that future generations can enjoy these places as we can today. They can be designated by the President, using the Antiquities Act of 1906. Since this act was created there have been 18 US Presidents, nine from each party. Under the Antiquities Act, the President is allowed to designate the “smallest area” required to protect waters and cultural and historic sites. Under the act the president can create, but is not allowed to increase, reduce, or abolish a monument; this can only be done by Congress, and there are multiple ongoing lawsuits because President Trump ordered the reduction of the size of the Bears Ears National Monument by 85 percent and the Grand Staircase-Escalante National Monument by almost half. Now those areas reduced are open to claims under the General Mining Law of 1872.

National Monuments are under the management of one or more of the following: the U.S. Bureau of Land Management (BLM), the National Park Service, the U.S. Forest Service, and the U.S. Fish and Wildlife Service. From what I have been able to discern, rockhounding is only allowed on land managed by the U.S. Forest Service and on some land managed by the U.S. Fish and Wildlife Service. Rockhounding on the “public” lands is managed by these agencies, and the rules differ from site to site.

A monument proclamation directs the agency or agencies to develop a resource management plan with input from and consultation with state and local governments, tribes, communities, and the public. Plans are to take into account local considerations and could include promoting cooperative conservation, preserving Tribal culture and religious activities, conserving critical wildlife habitat, improving recreation opportunities, and other priorities. Historically, monuments can also help bring additional resources for recreation and resource management and improve the visitor experience, but in the case of the National Forests in Oregon, access is being limited by the destruction or blocking of roads and trails. During a GOP Oversight Access to Public Lands hearing, it was found that the Forest Service is moving away from its mandate to maintain access to lands for multiple use. In Montana they have closed 21,000 miles of roads since 1990 – that’s one-third of all Forest Service roads, reducing access for everyone – including us rockhounds.

Keeping access is important to recreation and other activities like hunting, fishing, camping, and rockhounding. These activities contribute \$807 billion to the local economy and 7.6 million jobs. With the decreased access to these public lands, the contribution will be reduced, and the communities in the area are harmed by the reduction of income. Currently, rockhounding is allowed in the Mojave Trails National Monument, but that could be changed at any time without our input.

Access denial to these lands also can contribute to the spread of wildfires by providing access for firefighters, fires can be controlled before they are able to spread. Currently, the major voice of dissent to the creation of national monuments has been from the cattle industry because of the reduction of the land for grazing. We as rockhounds need to make our voice heard by petitioning Congress to include rockhounding as an allowed activity in all national monuments where our activities will not damage any historically significant areas. Please write your congressmen and ask that rockhounds be allowed to collect rocks and minerals in our national monuments. Explain that rockhounding is a hobby that has benefits to our members and helps children learn about earth sciences. They may be our next geologists because they have been able to get out in nature and learn the lapidary arts. Rockhounds are not Miners. This needs to be understood by Congress and our local legislators. Overall, rock hounding is a popular hobby that allows individuals to connect with the natural world, learn about Earth’s geologic history, and appreciate the beauty and diversity of rocks and minerals found in different regions.

Shows and Activities – Upcoming Show and Activity Dates

Check with the show contact to verify the show status

May 2024

- May 6-7, Waco G&M Club, Waco Convention Center, Waco, TX,
- May 25-26, Fort Worth G&MS, Will Rogers Memorial Center, Fort Worth, TX www.fortworthgemandmineralclub.org

June 2024

- June 15-16, Arlington Gem and Mineral Club, 1209 S. Main St., Grapevine, TX, www.agmc57.com

July 2024

- July 13-15, Tulsa, OK, Tulsa R&MS, Exchange Center at Expo Square, www.tulsarockandmineralsociety.org
 - Ref: Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>
 - Ref: SCFMS Website, Local Shows, www.scfms.net/local_shows.htm

VISIT AN AREA CLUB

[Arlington Gem & Mineral Club](#): 1st Tuesday of each month at 7:30 pm, 1408 Gibbins, Arlington, TX

[Cowtown Gem, Mineral, & Glass Club](#): 2nd Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth

[Dallas Bead Society](#): 1st Saturday of each month at 10:00 am at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX

[Dallas Gem & Mineral Society](#): 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop)

[Dallas Paleontological Society](#): 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane,

[Fort Worth Gem & Mineral Club](#): 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth

[Oak Cliff Gem & Min Society](#): 4th Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas,

[Pleasant Oaks Gem & Mineral Club](#): 1st Monday of each month at 7:00 PM, Knights of Columbus Council 6402 Hall, 3722 Cavalier Dr., Garland,

[Wild West Bead Society](#): 3rd Tuesday of each month at 6:30 pm, Wild Beads, 1124 S. Bowen Road, Arlington, TX

April 6 Meeting – Taco Monday Cinco de Mayo Potluck Dinner

Our next meeting will be Monday, April 6 at the Knights of Columbus Hall, 3722 Cavalier Drive, Garland, Texas. The meeting will start promptly at 7:00 PM. After a short meet and greet, we will start the Taco Monday dinner. There will be a nice door prize. **Please plan to be on time.**

The list of who and what to bring is listed in the minutes on the next page, but here it is again, straight from the minutes:



TACO MONDAY

Carolyn - taco meat
Shurtz - soft tortillas, black bean and corn salad
Vulks - hard taco shells, shredded cheese, limes
Cheryl - lettuce and tomatoes
Carole - queso and chips
Hatt - tea
Julie – dessert



OFFICERS FOR 2023 - 2024

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

MINUTES of the April 1 Meeting

POGMC President Joe Vulk called the 4/1/2024 club meeting to order at 7:20 pm.

Snack time: Until late-comers arrive. Thanks to the Vulks, Carole, and Hatt for providing the snacks.

Quorum: We have a quorum.

Visitors: None.

Minutes:

Minutes of the February meeting were published in the March Chips and Chatter. Eden read them. Julie made a motion to accept the Minutes. Brenda seconded the motion. The motion passed by a vote of members present.

Treasurer's Report: None (Ling absent).

Old Business: Dallas Blooms at Arboretum. Joe will attempt to get two passes for each person who helped with the geology day in November last year. It can be used once during the remainder of this year. Those needing them are: Carolyn and her friend, Julie, and Warner, and Hatt.

New Business:

- Julie reported that she and Warner will have a booth at the InterGem this coming weekend. Booth setup will be Wednesday, April 3rd around 12:00 to 1:00. Help from interested club members is appreciated. The show continues through Sunday.
- For our May meeting, we will have our annual Cinco-de-Mayo potluck social. Hopefully, Don can provide a raffle/door prize.

Snack for next meeting: Cinco-de-Mayo / Taco dinner:

Carolyn - taco meat

Shurtz - soft tortillas, black beans and corn salad

Vulks - hard taco shells, shredded cheese, limes

Cheryl - lettuce and tomatoes

Carole - queso and chips

Hatt - tea

Julie - dessert

Presentation: Julie and Warner brought some of the specimens they gathered at House Ranch near Three Rivers, TX on Saturday, March 16th. They reported on the field trip – an abundance of petrified wood, the weather (sunny except return to Dallas), snakes(none), etc. Members enjoyed inspecting the collection and Julie and Warner gifted members with a specimen of choice.

Raffle: None (Don absent).

Joe adjourned the meeting at 8:30 pm

PRESIDENT'S MESSAGE

At our last meeting on April 1st, the weather sort of played an April Fools Day trick on us. We were expecting a rainstorm to pass through while we had the meeting. But it turned out that it didn't start to drizzle until we were going home and then it let loose as we rushed into the house. Many thanks to Julie and Warner for bringing part of their finds from the House Ranch field trip. Julie gave a great report on the events of the trip. To me, the highlight of the presentation was seeing the interesting appearance of the petrified wood while Julie shined a bright flashlight on or through some of the pieces. Thank you too for generously giving each of us a piece to keep.

I'm looking forward to our May meeting when we will have our annual taco dinner and social. See you then and Feliz Cinco de Mayo.

Joe Vulk

NEXT MEETING

Our May meeting will be on May 6 starting at 7:00 at the Knights of Columbus Hall, 3722 Cavalier Drive, Garland. We will be holding our Cinco de Mayo social with a potluck dinner. Everyone should bring something to share (see the minutes).

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PLEASANT OAKS GEM and MINERAL CLUB of DALLAS



Meetings

First Monday of each month, KofC Hall, 3722 Cavalier Dr., Garland, TX. Please check website, www.pogmc.org, for updates.

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 not-for-profit organization

CHIPS AND CHATTER

Pleasant Oaks Gem & Mineral Club
c/o 4004 Dublin Rd.
Allen, TX 75002-6526

To

VISITORS ARE ALWAYS WELCOME

Our next meeting will be on Monday, May 6, 2024, starting at 7:00. We will meet at the Knights of Columbus Council 6402 Hall located at 3722 Cavalier Drive in Garland. This will be our Annual Cinco de Mayo Potluck Dinner and Celebration

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Chips and Chatter

Pleasant Oaks Gem and Mineral Club of Dallas, TX

See the Chips and Chatter online for color!

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