

Turquoise

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Turquoise is a favorite material for rockhounds. It has been a favorite in most cultures and is one of the earliest stones used for jewelry and other adornments. Turquoise was important to the early Persians,

Egyptians, Mesopotamians, Indian (Indus Valley culture), Ancient Greek and Romans, Chinese, Aztecs, Incas, and Native Americans.

Both the Aztec (900 AD) and Inca (1400 AD) cultures of the Americas used turquoise for jewelry and masks. Much of their work was beautiful and intricately crafted and was well preserved. There is some evidence that the Olmec (2000 BC) and Mayan (300 AD) cultures used turquoise for jewelry, and this use would have pre-dated the use by the Aztec and Inca cultures. The use of turquoise by the Native Americans evolved independently. There were rich turquoise mines in Arizona, California, Colorado, Nevada, and New Mexico. The earliest know turquoise mine was in New Mexico and dates to 200 B.C. The Native Americans



Aztec Turquoise and Gold Earrings



develop a turquoise trading network that extended from California to Colorado and included Utah, Arizona, and New Mexico. In the 1900s, the Native Americans developed a now common style of backing the turquoise with a harder material to preserve the amount of turquoise used in each peace. This technique is still confined to the Southwest; other countries prefer a solid turquoise stone.

Natural turquoise is quite rare; high quality turquoise is very hard to find. That is even more true today with all the enhancements and simulated turquoise. As you can see from its numerous cultural ties, Turquoise can be found in many locations on many continents. Turquoise

Chips and Chatter

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has been mined in Iran for 2000 years. The Sinai desert has been a steady source of turquoise for about 5000 years. The southwest United States continues to be an important source for Turquoise as it has for several thousand years. China has mined Turquoise for more than 3000 years and continues to export the finished and raw material. Other sources of Turquoise include Afghanistan, Austria, Australia, Chile, Great Britain, Saxony, and Turkestan.

Turquoise is hard enough to withstand the rigors of use in jewelry, yet soft enough to be easily worked. Turquoise varies in hardness from 5 to 6, which is softer than typical agate and jasper materials. The hardness of turquoise depends on the microcrystalline structure of the stone – the smaller microcrystalline particles allow it to be packed more closely resulting in a higher density and higher Mohs hardness. Turquoise is chemically a hydrated phosphate of copper and aluminum, $CuAl_6(PO_4)_4(OH)_8 \cdot 4H_2O$. Piney the Elder called it *callais* (greenish-blue). The Aztec knew it as *chalchihuitl*. The English name turquoise is derived from the French *turquois* meaning Turkish – the stone was imported from Turkey that obtained them from the historical mines in Khorasan of Persia.

References:

- Birthstones for December, Shurtz, Don, December 13 Chips and Chatter, <u>http://www.pogmc.org/newsletter/Dec13cc.pdf</u>
- Turquoise, Wikipedia, https://en.wikipedia.org/wiki/
- Massive Turquoise Trade Network, Live Science, <u>https://www.livescience.com/</u>

Pictures: Photographs by Don Shurtz of specimens displayed at the Perot Museum of Nature and Science

From the Desk of the [AFMS] President

By David Wayment, AFMS President From the June 2020 AFMS Newsletter

Greetings fellow Rockhounds. It is now the first week in May, and this is the last [AFMS] newsletter until September. About half the states are entering Phase 1 of reopening. In Florida, Phase 1 has restaurants and businesses at 25% capacity and no groups larger than 6 people. My local club is still shut down. William Holland Lapidary

School has made the difficult decision to not open this year. Most clubs and federations have had to make difficult decisions about shows, field trips, meetings and workshops, but it all depends on where you are physically and the status of the virus in your area.

Unfortunately, at this time, the AFMS annual meeting for October is on hold. Meetings and conventions cannot be held until we are in Phase 3. Phase 2 only permits groups up to 50 people and no show can be successful with only 50 people. The ability to hold a convention will depend mostly on the geographic area. Ours is scheduled for Knoxville, Tennessee. While a lot of Tennessee opened up to Phase 1, Knox County is still on total lockdown. The venues and hotels are not taking reservations for a conference. We are unable to confirm plans at this time.

A lot can change in the next 6 weeks. We might find things get better quickly, or a resurgence of the virus. The AFMS does not have the ability to do an email blast. (Maybe we should look into this.) We will have to rely on the ability of the different regions to do an email blast to get out more information about the annual meeting when we know more.

While we are in our lock down, I encourage everyone to take advantages of some of the offerings from Rock & Gem Magazine, which is our official magazine. They have a section of Virtual Adventures on their website. Check out rockngem.com for their offerings. All club members are offered a discount subscription rate of 12 issues for \$24 using code RD24, and I have been told it can be used for multiple year subscriptions. When we get back to having shows, they have a nice club directory and show listing, with additional advertising options. Contact Talvarez at beckett.com.

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A Note from Roger

Roger Buford, SCFMS President, from the May-June SCFMS Newsletter

This year as we have in the past four years, Liz and I were scheduled to be vendors at the Pow Wow Gem and Mineral Show in Quartzsite, Arizona. This is a five day show which is only one of the many different shows going on in Quartzsite starting the first of January. There are also other shows going on, like an RV show, Flea markets and Craft shows. You can find just about anything you could

want between the different shows which run all the way into March. For those of you wondering why I was not able to attend last year's SCFMS show, this was the reason. We pay a year in advance to vend at the Pow Wow show and at that time there was no date set for the SCFMS convention, there was no one we could find who could man our both at the show.

I had another surgery on my back in April 2019, and was doing great with my recovery. We were scheduled to leave on the 4th of January 2020. I in the week before we left I was finishing up loading our trailer. While walking across the back yard I tripped over something, probably my own feet, and fell face down on the ground pinning my right arm under my body. I lay there for a little while and could not feel any damage so got up and continued what I was doing. My ribs hurt but that was about it, but I did tell Liz I had fallen but felt ok.

We left the morning of the 4th as planned and I drove for the first 10 or so hours before letting Liz drive since she does so much better at night. When she stopped for gas, I got up from the back seat and noticed that my left leg felt like it had gone to sleep. We continued on our way and each time we stopped it seemed like it got more pronounced. When we arrived at the camp site we were staying at my left leg was barely working at all. We had brought my cane and I started using that to help me get around. Each day we were there the numbness continued and spread to my right leg. I was still able to walk with the cane until the night before Pow Wow was to start. Unfortunately, I had fallen almost every day at least once, so we went to the hospital in the nearest town, which is Parker. They performed a CAT scan, which did not show anything but the doctor wanted to send me to Phoenix to be checked out there by their Neurology department. We decided to wait until we came back home since our show started the next day and Liz had no one to help her. We then went to Wal-Mart and bought a rollator to help me get around but I was still falling down at least once every day for the rest of the time we were there. We did ok at the show and stayed a few days after to recover before the drive home which was uneventful. I had already called and made an appointment with my surgeon for the 4th of February after our return. On the morning of the second I fell down again and was not able to get back up, I was numb from the waist down and had no control of my legs at all. Liz called 911 and got me to the hospital where emergency back surgery was performed the next day. After in house rehab followed by outpatient rehab until this Corona virus started up. My legs are still partially numb and I require a walker to get around but I am back to working in our shop trying to get back to my new normal.

So what has been learned during all of this debacle? Even though my mind still thinks I am only 30, the rest of me knows the truth that I am almost 64 years old and I need to slow down some. Nothing is so important that you cannot take the time to be careful.

Virtual Tours Suggestions from you Editor

- Houston Museum of Natural History, <u>http://www.hmns.org/exhibits/online-exhibition/</u>
- Witte Museum (San Antonio), <u>https://www.wittemuseum.org/Witte-Where-You-Are/</u>
- American Museum of Natural History, <a href="https://artsandculture.google.com/streetview/american-museum-of-natural-history/OQGjMrLQ0rj5Dw?sv_lng=-73.97369243670578&sv_lat=40.78077791169868&sv_h=246.68461722445113&sv_p=-13.180436928870975&sv_pid=VnzjQRniQBOIJ1KvooFq-g&sv_z=1
- David Friend Hall, Yale Peabody Museum of Natural History, https://www.youtube.com/watch?v=GmtcfqiaEHg&mc_cid=515efcafe8&mc_eid=%5BUNIQID%5D
- National Museum of Anthropology Mexico City https://artsandculture.google.com/asset/the-national-museum-of-anthropology-mexico-city-ziko-van-dijk-wikimedia-commons/bAGSHRdlzSRcdQ?hl=en
- Smithsonian National Museum of Natural History, https://naturalhistory.si.edu/visit/virtual-tour
- NASA Langley Research Center (Virginia), https://oh.larc.nasa.gov/oh/ and/or NASA Glenn Research Center (Ohio), <u>https://www.nasa.gov/glennvirtualtours</u>

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If a link does not work, try copying the link and paste it into your browser

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Pleasant Oaks Gem and Mineral Club of Dallas, TX



June 2020 Visit us: <u>www.pogmc.org</u> "Like" us on Facebook

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

JUN 20-21, Grapevine, TX, Arlington G&MC, Grapevine Civic Center, www.agmc57.org

• JUL 11-12, Tulsa, OK, Tulsa R&MS, Tulsa County Fairgrounds, <u>www.tulsarockandmineralsociety.org</u>

Ref:

- May June 2020 SCFMS News
- SCFMS Local Shows, www.scfms.net
- $\bullet \qquad {\rm Rock\ \&\ Gem\ Show\ Dates\ Piles\ /Show\ Dates\ Piles\ /Show\ Dates\ Piles\ /Show\ Dates\ Piles\ /Show\ Dates\ Piles\ All\ php\ ?Show\ State=\ ALL\ All\ php\ ?Show\ State=\ ALL\ All\ php\ ?Show\ State=\ ALL\ All\ php\ Piles\ Piles\$

Bench Tips from Brad Smith

Reprinted by permission of the author, Brad Smith. Received as an email from Brad Smith

QUICK CLOSE-UPS

Often when trying to get a close-up photo with your Phone or Android, you end up with a fuzzy, out-of-focus image. Next time try using your loupe over the camera lens. It works quickly and easily.



LITTLE THINGS CAN BITE

Most jewelers treat motorized equipment with caution. We've all heard stories about workpieces coming loose in the drill press or about getting long hair or clothing caught in the polishing machine. It stands to reason that a machine with a motor of a half horsepower or so is going to win out over its operator. We all know that, and I'm not going to harp on it. That's not the point of this story.

I want to talk about the smaller motor powered machines we often use, the ones with little 3 inch diameter motors. For instance, these small motors are used in flexshafts and micro buffers. They're so small that many of us forget caution when using them. I'm guilty of it myself sometimes, and believe me it can get you in trouble. Here's what happened to two people I know.

One friend had a polishing bur bend in the handpiece, but too much pressure bent the bur which then whacked the thumb that was holding the workpiece. The swelling was substantial, and it took several weeks to regain normal use. A small underpowered motor? Not so.

Another friend was using one of the small buffing machines, the kind you can stop when you apply too much pressure to the wheel. Not to worry about such an underpowered beast you say. Wrong, it literally jumped up and bit the hand that feeds it !

Buffer was set on a low table to do a quick polish, so was not mounted or clamped. A buff was installed on the right spindle, no buff on the left. Friend was wearing a tight-fitting, longsleeved sweater. While buffing on the right wheel, the left tapered spindle caught a thread on the friend's left sleeve and started grabbing more and more threads and sleeve.

Rather than pulling the arm into the machine, the light buffer quickly lifted off the table and started climbing up the underside of the friends arm. There was no way to get a hand of the on/off switch because the unit was spinning wildly and battering my friend like a club wielded by a mad man. Only when someone nearby could grab the power cord and yank it from the wall did the mayhem stop.

So when you're in the shop, please think safety. Don't take even the little motors for granted

Work Smarter & Be More Productive With Brad's "How-To" Jewelry Books

Amazon.com/author/bradfordsmith



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 2nd Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth Dallas Bead Society, meets 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 meets the 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop) Dallas Paleontological Society, meets 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244 Fort Worth Gem & Mineral Club, meets 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth Oak Cliff Gem & Mineral Club, meets the 1st Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland Wild West Bead Society, meets 3rd Tuesday of each month at 6:30, Wild Beads, 2833 Galleria Dr., Arlington, TX

Editor's Note: New URL for the Arlington Gem and Mineral Club

As of now, our June meeting is on! We will meet on Thursday, June 4th At the Garland Activities Building

For Our Meeting:

6 Foot Social Distancing at All Times

Face Masks Required

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PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

Are you getting as stir-crazy as I am? I have talked with several club members and the symptoms are all there and all the same. The good news is that we should be able to hold our June meeting – plan to get out of your house and be there! We will need to discuss plans for the July 2^{nd} meeting (the week of July 4^{th} always seems to present problems for parking due to Holiday activities. Come prepared with an idea of what we can do.

CLUB OFFICERS FOR 2019

President:	Ling Shurtz
1st VP, Programs:	Carolyn Grady
2 nd VP, Field Trips:	Open
Secretary:	Lee Elms
Treasurer	Del Grady
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MEETING MINTUES

No April or May meetings were held so no minutes generated. The last meeting with Minutes was the March 5th meeting – the Minutes from that meeting were published in the April Chips and Chatter and still need approval.

MEETING

Our June 4th, as of now, is scheduled to occur! We will meet at the Garland Activities Building starting at 7:30 PM. For our program, Julie Wilson will talk about some of her experiences living in Alaska. If you were at the December meeting, Julie relayed some of her experiences, but this should be even better. In advance, Thanks Julie

Our subsequent meeting will be July 2^{nd} starting at 7:30. We need to discuss options for that meeting.

The International Gem and Jewelry Show (IGEM) has been rescheduled for August 7-9 at Market Hall.

VISITORS ARE ALWAYS WELCOME

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PLEASANT OAKS GEM and MINERAL CLUB of Dallas

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A CONTRACTOR	First Thursday of each month, 7:30 PM Garland Women's Activities Building 713 Austin St., Garland, TX (Northeast corner of Austin & Glenbrook)		Walnu		enbrook here		
AND MINEON	Membership Single Adult: \$16.50, Junior: \$5.00, Family: \$27.50		<u> YY AIIIL</u>		Aus tin Miller	- 78	
	(Plus badge fee for new members)		N. (Garland		Lavon	D

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 The June meeting will start at 7:30 PM at the Garland Activities Building Our presentation will be given by Julie Wilson – Alaskan Experiences

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