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Affiliated: American Federation of Mineralogical Societies



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1st Place, 2016 SCFMS Mini-Bulletin

1st Place, 2015 SCFMS Mini-Bulletin

## Malachite

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Malachite is beautiful green copper based mineral. Malachite's chemical composition is copper carbonate hydroxide. If that sounds familiar, then congratulations for reading last month's article about Azurite. Malachite's chemical composition is similar -  $\text{Cu}_2\text{CO}_3(\text{OH})_2$ . You will note that malachite has only one carbonate radical while azurite has two carbonate radicals.

Malachite forms in the monoclinic crystal system (think a 3-D parallelogram). It will occasionally form as needles that fan out from a common point on the surface of a rock. It will also occasionally form as small crystals on the crust of a rock. However, the most common form of malachite is either botryoidal or a direct replacement of azurite assuming the crystalline shape of the azurite.

Massive (botryoidal) often has alternating shades of lighter and darker green bands or rings. The most prized specimens are those with concentric rings.

Malachite is one of the ores for the production of copper. There is evidence that copper was produced from malachite 6000 years ago in Israel. The malachite was heated (roasted) with a charcoal to form copper

oxide. The copper oxide could then be smelted using a reducing flame for form copper.



The Ural Mountains were the famous source of the malachite for the Malachite Room, the Winter Palace in St. Petersburg, Russia. The room features columns and a fireplace which appear to be pure malachite but are in fact just a malachite veneer. The room also contains a solid, large malachite urn.

There is also a Malachite Room in Castillo de Chapultepec in Mexico City. The room features a set of large malachite doors, malachite columns and fireplace, and several malachite urns. The malachite for this room was mined in Mexico.

Other locations where malachite is found include Democratic Republic of Congo, Tsumeb, Zambia, Gabon, France, Australia, Mexico, and the southwest United States. In Texas, small quantities of malachite can be found in the

Llano Uplift area and near Van Horn in west Texas.

References:

- Wikipedia, <https://en.wikipedia.org>
- Desert USA, <http://www.desertusa.com>
- Journal of Chemical Education, <http://pubs.acs.org/doi/abs/10.1021/ed081p1777>
- Girard, Rosella M; Texas Rocks and Minerals, An Ameture's Guide; Bureau of Economic Development, University of Texas, Austin, TX, copyright 1964

Picture by Don Shurtz, specimen displayed at Perot Museum of Nature and Science

## Rock Talk

Walter Benez, SCFMS President  
From the March-April SCFMS Newsletter

I don't know about you, but I feel as if this year is already passing by very quickly and I find myself wondering if there will be enough time to do everything that I need to get done. Aside from all my personal issues and projects, there are my duties here in the local club, and many things that need attention in the Federation. Since I operate best with a list of things to do, I am going to point out a few things that hopefully will spur you into action with a few things that will require all of our attention in the next few months. Copies of the Federation directory will be distributed soon so be sure to look them over and keep them handy for future reference. The directory will help you find dates and contacts for shows across the Federation. Use the directory to send invitations for your show to all member clubs. With the annual convention being in November this year, there is still time to submit proposed changes to the Constitution and Bylaws committee. July 14th is the last day to submit proposed changes, so if you have any concerns, now would be the time to bring them up so the committee will have time to consider a recommendation one way or another. The nominating committee will need outstanding people to recommend for several elected positions. The incoming President will need to appoint many committees and chairmanships so if you or someone in your club is ready to step up and get involved at a deeper level, please make your intentions known. Do your club and the SCFMS a favor and go to our website at [www.scfms.net](http://www.scfms.net) and read our Constitution, Bylaws and Operating Procedures so you know where you can fit in and help in leadership. We need new people to get involved. If your club has not been represented at the annual meeting regularly, please remember that it is your duty and privilege to send a delegate to represent your club and vote on your behalf. Club Presidents need to be in attendance if at all possible so you should consider now what can be done to help them financially with travel expenses, and fundraise accordingly. Some of this may seem like things that are way off, but I assure you, last minute deadlines will come before you know it. Wishing everyone a great spring, Walter Benez. SCFMS President



### The Editor's Corner – Local Collecting Sites

Don Shurtz, Pleasant Oaks Gem and Mineral Club

Collecting is one of the most enjoyable aspects of our hobby. There are collecting sites all around us, we just need to venture forth. I think we all know about the fossil and pyrite collecting at the Martin Marietta Materials plant in Midlothian (see page 5 for a Field Trip announcement). Another favorite fossil site is the North Sulphur River near Ladonia. But there are other great collecting sites within a couple of hours drive. Last year I collected turrillia limestone to the southeast of Waco on a field trip put together by CERA – I came back with 2 large pieces for my 2 hours worth of digging. The year CERA is sponsoring a trip to near Lake Brownwood to collect horned coral on Saturday, April 8<sup>th</sup>. If you are interested, contact [cera.fieldtrips@gmail.com](mailto:cera.fieldtrips@gmail.com). Mineral Wells Fossil Park is another local collecting site for small marine fossils. The park is run by the City of Mineral Wells. Collecting is free – it sound like a field trip to me! Lake Benbrook just to the southwest of Ft. Worth has many amazing fossils including ammonites up to 1 foot in diameter. The entire area to the south and west of Lake Benbrook down to Cleburne and Glen Rose are also noted for marine fossils. If rocks and minerals are more to your taste, the area near Possum Kingdom Lake (along 2951) is known for small hematite pebbles. Many years ago we did a family outing to that area but only found a few pieces. We only looked along a small section of a main road and I am guessing that we just did not venture far enough to find an area that was not previously high-graded. Agates and jasper can be found Proctor Lake to the southwest. I have a bolo tie with an arrowhead shaped tumbled stone that is likely chert with jasper. With a bit more of a drive out towards the west one can find alabaster and colorful dolomite. The alabaster is found to the west of Childress and the south of Clarendon; the dolomite is found along the Red River to the north of Clarendon. Calcite in the form of clay concretions are found in the south Dallas area, but a more productive area may be to the northeast of Marlin along highway 147. With spring being here, I am getting the urge to get out and look. Anyone else interested?

## Show Calendar – Upcoming Show Dates

Apr 8 – 9, Abilene, TX, Central Texas G&MS, Abilene Civic Center, [kmcdaniel23@suddenlink.net](mailto:kmcdaniel23@suddenlink.net),

Apr 8 – 9, Siloam Springs, AR, Northwest Arkansas G&MS, Siloam Springs Community Building, [hulagrub@aol.com](mailto:hulagrub@aol.com),

Apr 15 – 16, Alpine, TX, Chihuahua G&MS, Alpine Civic Center, [paulgraybeal@moonlightgemstones.com](mailto:paulgraybeal@moonlightgemstones.com)

**Apr 29 – 30, Waco, TX, Waco G&MC, Extraco Events Center, [bennettje70@gmail.com](mailto:bennettje70@gmail.com), [www.wacogemandmineral.org](http://www.wacogemandmineral.org)**

**May 6, Arlington, TX, Arlington G&MC Swap Meet, 1408 Gibbons Rd, Arlington, [www.agemclub.org](http://www.agemclub.org)**

May 6 – 7, Lubbock, TX, Lubbock G&MS, Lubbock Memorial Civic Center, [www.lubbockgemandmineral.org](http://www.lubbockgemandmineral.org)

May 13, Enid, OK, Enid G&MS Rock Swap, Meadowlake Park, 1120 West Rupe St., [www.enidgemandmineral.org](http://www.enidgemandmineral.org)

**May 27 – 28, Fort Worth G&MC, Will Rogers Memorial Center, [www.forthgemandmineralclub.org](http://www.forthgemandmineralclub.org)**

**Jun 9-11, Ventura, CA, Ventrua G&MS and AFMS Convention, [www.vgms.org](http://www.vgms.org) and [www.amfed.org](http://www.amfed.org)**

**July 01 – 02, Grapevine, TX, Arlington G&MS, Grapevine Convention Center, [www.agemclub.org](http://www.agemclub.org), [show@agemclub.org](mailto:show@agemclub.org)**

**Nov 10 – 12, Humble, TX, Houston G&MS and SCFMS Convention, Humble Civic Center**

**Nov 18 – 19, Mesquite, TX, Dallas G&MS, Rodeo Center Exhibit Hall, [www.dallasgemandmineral.org](http://www.dallasgemandmineral.org), [case53d@yahoo.com](mailto:case53d@yahoo.com)**

Ref:

- January - February 2017 SCFMS Newsletter
- Rock & Gem Show Calendar, <http://www.rockngem.com/show-dates-display/?ShowState=ALL>

## Dallas Regional Science and Engineer Fair

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

We just missed last month's deadline to include the results for the Pleasant Oaks Gem and Mineral Club Special Award at the Dallas Regional Science and Engineering Fair in the March Chips & Chatter. This year the Fair was held on February 25 at Fair Park. Carolyn and Del Grady and Ling and Don Shurtz were our judges. As has been the case several times over the last few years we did not find a project directly related to our hobby, so we again turned to projects related to Earth Science. All of our winners came from the Junior Division (grades 6 – 8).

Our winner of this year's Special Award, including a \$100.00 gift certificate to Natures Gallery, was Robert Martinez for his project "Frack Quakes: Does Fracking Cause Earthquakes?". One Honorable Mention went to Sara Rebollo-Diaz for her project "How can we prevent a meteorite impact from causing damage?" and another Honorable Mention went to a team project by Pedro Rodriguez and Anthony Velazquez for their project "Rotten Rocks". We commend these students for their fine work.



## Visit an Area Club

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

[Cowtown G, M, & Glass Club](#), meets the 2<sup>nd</sup> Tuesday at 7:00 pm, Corp. Emp. Rec. Association (CERA) 3300 Bryant Irvin Rd. Fort Worth

[Dallas Bead Society](#), meets 1<sup>st</sup> Saturday of each month 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](#), 2<sup>nd</sup> Wed. of each month at 7:30 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244

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

[Oak Cliff Gem & Min Soc.](#), 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,

## American Federation of Mineralogical Societies Code of Ethics

- ◆ I will use no firearms or blasting material in collecting areas.
- ◆ I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.
- ◆ I will leave all gates as found.
- ◆ I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.
- ◆ I will discard no burning material - matches, cigarettes, etc.
- ◆ I will fill all excavation holes which may be dangerous to livestock.
- ◆ I will not contaminate wells, creeks, or other water supplies.
- ◆ I will cause no willful damage to collecting material and will take home only what I can reasonably use.
- ◆ I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.
- ◆ I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.
- ◆ I will cooperate with field-trip leaders and those in designated authority in all collecting areas.
- ◆ I will report to my club or federation officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.
- ◆ I will appreciate and protect our heritage of natural resources.
- ◆ I will observe the "Golden Rule", will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature and Public Image of Rockhounds everywhere.

## 2017 AFMS Endowment Fund Raffle Update

I just received the April AFMS Newsletter and it now shows 8 prizes for the AFMS Endowment Fund Raffle. Joyce Speed (4580 Wisteria St., Dallas, TX 75211) is the SCFMS representative. To see all the raffle prizes, check out the AFMS Newsletter at [http://www.amfed.org/afms\\_news.htm](http://www.amfed.org/afms_news.htm). The April newsletter should be posted about the time you receive your Chips and Chatter

### BACK YARD ROCK and EQUIPMENT SALE

Keith and Toni Harmon will again be hosting a yard sale at his home near Rusk, Texas on Saturday, April 1<sup>st</sup>. Their address is 9116 US Hwy 84 West, Rusk, TX 75785 (to find the address on Google Maps use Jacksonville instead of Rusk). The sale will start at 9:00 AM. There will be more than 50 tons of rocks priced from \$0.50 to \$4.00 per pound. Varieties include agates, jaspers, obsidians, jade, palm wood, Arizona wood, and others. The rocks vary in size from tumbling charge to large cutting pieces. Equipment includes saws, grinders, vibrating laps, flat laps, sphere machines, tumblers, plus miscellaneous parts. The equipment is used, but spare parts like tumbling barrels may be new.

### GEM and MINERAL Sale

David Dobson will be hosting a Gem and Mineral sale at the Hyatt Place Hotel Dallas in Las Colinas. The address is 5455 Green Park Drive, Irving, TX 75038. The sale will be Friday, March 31<sup>st</sup> and Saturday, April 1<sup>st</sup> from 9:00 AM to 6:00 PM both days. If you get lost, call the hotel at 972-550-7400. Contact David with other questions at [rock@rocktrading.com](mailto:rock@rocktrading.com)

**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.

## President's Message

Ling Shurtz, POGMC President

At our March meeting we had a great Pot-Luck dinner. After the dinner we welcomed two guests, Francisco and Maria Gonzalez. We completed our chip inlay ring project. In April we are looking forward to IGEM. Plan for set-up on Wednesday, April 26<sup>th</sup>.

## Club Officers for 2017

President: Ling Shurtz  
1st VP, Programs: Carolyn Grady  
2<sup>nd</sup> VP, Field Trips: Open  
Secretary: Lee Elms  
Treasurer: Del Grady  
Editor: Don Shurtz  
E-mail: don.shurtz@gmail.com,  
l.shurtz@gmail.com

## February Meeting Minutes

After a pot-luck St Patrick's Day dinner (Corned Beef and Cabbage plus lots of other goodies), the business meeting was called to order at 7:50 PM

Pledge of Allegiance: The Pledge was led by Don.

Sunshine Report: Butch is doing well. Hat is still having back issues. Warner will be going back for more vascular surgery.

Visitors: Francisco and Maria Gonzalez, friends of Butch and Patti

Minutes: Minutes of the February 2017 meeting as printed in the March Chips and Chatter were discussed. A motion to accept the minutes was made by Butch and seconded by Cheryl. The motion was passed.

Treasurer's Report: The Treasurer's Report was presented by Del. A motion to accept the report was made by Don and seconded by Carolyn. The motion was passed.

**SHOW AND TELL:** bring a copper-based specimen (azurite, malachite, turquoise, chrysocolla, etc.).

I realize this may sound like a repeat, because it is. Last month will the dinner and project we more or less did not do Show and Tell.

Old Business:

- We participated in the STEM fair at Brookhaven.
- We selected winners for our Special Award at the Regional Engineering and Science Fair. The Special Award was won by Robert Martinez. Honorable Mentions went to Sara Rebollo-Diaz, Pedro Rodriguez and Anthony Velazquez.

New Business: IGEM will be back at Market Hall in April. Dates are 28 – 30 April; set-up will likely be Wednesday, 26 April

Presentation: Our presentation was a continuation of the chip-inlay project. Del and Don brought their flat laps in to smooth the top and polish the rings.

Following the presentation, we held the raffle.

The meeting was adjourned 9:10 PM

From notes by Don and Ling

## Meetings

The April 6<sup>th</sup> meeting will be at the Garland Women's Activities Building at 7:30 PM. The presentation will be the DVD "The Grand Canyon – Earth's Layers"  
The May 4<sup>th</sup> meeting will be at the Garland Women's Activities Building at 7:30 PM

## Field Trip

Thanks to the efforts of David Dobson, there will be a field trip to Martin Marietta Materials quarry in Midlothian on Saturday, May 6<sup>th</sup> 2017. More details we be available in the May Chips and Chatter. Contact David at rock@rocktrading.com

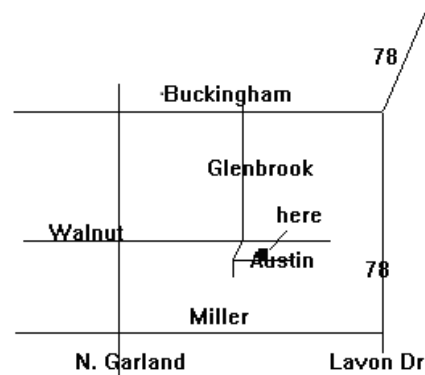
## VISITORS ARE ALWAYS WELCOME

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PLEASANT OAKS GEM and MINERAL CLUB of Dallas



<p>Meetings                  First Thursday of each month, 7:30 PM                  Garland Women’s Activities Building                  713 Austin St., Garland, TX                  (Northeast corner of Austin &amp; Glenbrook)</p>
<p>Membership                  Single Adult: \$16.50,                  Junior: \$5.00, Family: \$27.50                  (Plus badge fee for new members)</p>



- The April 6<sup>th</sup> meeting will be at the Garland Women’s Activities Building at 7:30 PM. The presentation will be the DVD “The Grand Canyon – Earth’s Layers”
- The May 4<sup>th</sup> meeting will be at the Garland Women’s Activities Building at 7:30 PM

**CHIPS AND CHATTER**

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

To:

**VISITORS ARE ALWAYS WELCOME**

**Features**

Malachite ..... 1  
 Editor’s Corner – Local Collecting Sites ..... 2  
 Dallas Regional Science and Engineering Fair .... 3

**Federation Information**

AFMS Code of Ethics ..... 4  
 AFMS Endowment Fund Update ..... 4  
 Rock Talk by the SCFMS President..... 2

Note the early delivery so you can check out the  
 March 31 – April 1 activities

**Notices**

Field Trip ..... 5  
 Meeting Info ..... 5, 6  
 Rock Sales ..... 4  
 Show Calendar ..... 3  
 Visit an Area Club ..... 3

**Monthly Columns**

Club Information ..... 1, 5, 6  
 Minutes of the February Meeting ..... 5  
 President’s Message ..... 5