

GRITTY GREETINGS



Waco Gem and Mineral Club

Volume 64, Issue 8, August, 2023

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Table of contents.....	1	
WGMC Contacts	2	
Minutes from July meeting	3	2
Bench Tips	3,4	
Notes	4,5	
August Birthstones.....	5,6,7	
Club Purpose.....	7	

Next meeting, August 5th, 10 AM!

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Waco Gem and Mineral Club

Minutes July 8th, 2023

President Roy Cooper **called the meeting to order approximately** 11 am.

Roy then **welcomed the visitors.**

16 members and guests were present.

Program for August will be a video on Tanzanite.

Show committee reported that the Convention Center was not available for the 2024 show.

Scott reported that we checked with The Lion's Den and the Lee Lockwood Library as possibilities. Other possibilities were discussed.

The meeting was adjourned and ice cream and other goodies were enjoyed by all.

Bench Tips

SILVER SOLDER FROM SCRAP (from previous issue)

Sometimes you need a lot of silver solder to complete a piece the way you want it to be. For me it was when I was trying to join several castings. But silver solder is expensive, so I found a way to make my own from scrap with a little help from a penny.

First step is finding out what's in a solder. A search through the reference books (Tim McCreight or Erhard Brepohl) or a Google search will turn up recipes like:

* Hard - AG 80% CU 13% ZN 7%

* Medium - AG 70% CU 20% ZN 5%

* Easy - AG 63% CU 30% ZN 7%

The silver (AG) and the copper (CU) are easy to come by, but finding some zinc (ZN) has always been my problem until I found out that our pennies are almost all zinc. According to Wikipedia a US penny minted after 1982 weighs 2.5 grams and is 97.5% ZN and 2.5% CU. So all I had to do is add a penny to some copper and a pile of silver scrap. I chose to use Sterling scrap so I adjusted for the amount of copper in it as well as the amount of copper from the penny. Here's what I used for components of Medium solder:

* Sterling - 36.90 grams

* Copper - 9.35

* Penny - 2.50

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Melt the silver and copper first in a melting dish, mix well with a carbon rod or titanium solder pick, add the zinc (penny) last, mix again, and pour into a small mold. The zinc is added last because melting it causes some to vaporize, and the fumes are a safety problem (They're a gray-green color). Be sure to have good ventilation. To check the solder's melting temperature was correct (medium), I put a sample of the homemade solder on a piece of copper sheet along with a known sample of hard, medium and easy solders. I then heated the plate from the bottom and watched as the easy first melted, the medium melted, the homemade melted, and finally the hard.

Additional notes on converting the ingot to sheet, strip or wire form - If you have access to a rolling mill, that will be the fastest way to proceed. Either roll out the ingot into a sheet and cut strips or roll it out as wire if your mill has the grooves. If you don't have a mill, all you have to do is forge out the ingot into a rough sheet of the gauge you'd like and then cut thin strips with bench shears. Be sure to anneal the sheet every so often as you forge it.



Notes

The editor requests news items from any member to be included in the Gritty Greetings.

Deadline for submissions is the 20th day of the month. Contributions to the newsletter are encouraged.

Name Tags:

It is great that we feed the pig at our meetings because we don't have or have lost or forgotten our nametags to drop a dollar in the pig. The money from the pig goes toward our Scholarship program, and we really do

Gritty Greetings: Waco Gem and Mineral Club Newsletter

appreciate every dollar or more. However, if you need a nametag you can purchase them at the businesses below!

Waco Gem & Mineral Club nametags are available at **Print Mart**, 202 Deb (behind AutoNation Chevrolet). Cost with a pin back is \$8.00 (with tax \$8.66), and with a magnet back is \$11.00 (\$11.91). or at Award Specialties at 431 Lake Air Dr.

Club Dues:

Annual Waco Gem and Mineral Club dues are \$12.00 for an individual membership or \$20.00 for a family membership. Please check with Dorothy if you aren't sure whether you've paid your Dues!

Shop Fees:

Lapidary Workshop fee is \$2.00 per hour. Slab Saw fee is an additional \$2.00 per hour. Class fees are always dependent upon class and instructor.

The Waco Gem and Mineral Club is a member of the South-Central Federation of Mineral Societies; and the American Federation of Mineralogical Societies. Meetings are held on the first Saturday of each month (except July and September) at 10:00 a.m. at the Waco Gem and Mineral Club Clubhouse, 187 South McLennan Drive in Elm Mott, Texas. The lapidary workshop is in the clubhouse.

Our website is www.wacogemandmineral.org

Facebook: <https://www.facebook.com/WacoGemAndMineralClub>



August birthstones: Peridot, Sardonyx, Spinel

Gritty Greetings: Waco Gem and Mineral Club Newsletter

The Origin of the **Peridot** Stone

Though peridot is widely recognized for its brilliant lime green glow, the origin of this gemstone's name is unclear. Most scholars agree that the word "peridot" is derived from the Arabic *faridat*, which means "gem;" however, some believe it's rooted in the Greek word *peridona*, meaning "giving plenty." Perhaps that's why peridot was, according to lore, associated with prosperity and good fortune.

Peridot is the rare gem-quality variety of the common mineral olivine, which forms deep inside the Earth's mantle and is brought to the surface by volcanoes. In Hawaii, peridot once symbolized the tears of Pele, the volcano goddess of fire who controls the flow of lava. Rarely, peridot is also found inside meteorites.

Peridot's signature green color comes from the composition of the mineral itself—rather than from trace impurities, as with many gemstones. That's why this is one of few gemstones that only comes in one color, though shades may vary from yellowish-green to olive to brownish-green, depending on how much iron is present.

Peridot Jewelry: Sparkling & Robust

Though it is known as "the Evening Emerald" because of its sparkling green hue, peridot looks good any time of day.

Most of the world's peridot supply comes from the San Carlos Reservation in Arizona. Other sources are China, Myanmar, Pakistan, and Africa.

Peridot only measures 6.5 to 7 on the Mohs scale. So, while the raw crystal is prone to cracking during cutting, the finished gemstones are robust and easy to wear.

Sardonyx combines alternating layers of sard and onyx—two types of the layered mineral chalcedony—to create a reddish zebra-striped gemstone with white bands.

Its name, similarly, combines *sard* (referencing the ancient Persian city, Sardis—in present-day Turkey—where the red stone was found) with *onyx* (from the Greek word of the same spelling, which meant "nail or claw.")

Sard ranges in color from yellowish-red to reddish-brown, depending on how much iron oxide is present. Sard is easily confused with carnelian, another type of chalcedony that is slightly softer and lighter in color.

Sardonyx, like onyx, shows layers of parallel bands—instead of the chaotic, curved bands that compose agate, another type of chalcedony.

The finest examples of sardonyx, which display sharp contrasts between layers, are found in India. Other sources include Brazil, Germany, Czech Republic, Slovakia, Madagascar, Uruguay, and the United States.

Measuring 6.5 on the Mohs hardness scale, sardonyx is widely available and relatively inexpensive as gems, beads, and jewelry. It is often carved into cameos, intaglios, and brooches to show the color contrast between layers.

The **spinel** is often mistaken for either a ruby or pink sapphire, as it can resemble both. In fact, some of the most famous rubies in history have turned out to be spinel. But its distinguishing features, like its octahedral crystal structure and single refraction, are what sets it apart from other gemstones. Spinel also has a lower Mohs hardness than ruby and sapphire.

Significant deposits of spinel have been found in Cambodia, Myanmar, Sri Lanka, and Thailand. It has also been found in Afghanistan, Australia, Brazil, Madagascar, Nepal, Nigeria, Tadjikistan, Tanzania, and the United States.

Vivid red is the most desirable color of spinel gemstones, followed by cobalt blue, bright pink, and bright orange. The more affordable gemstones are often those with paler colors, like lavender. You may also find spinel in black, violet blue, greenish blue, grayish, pale pink, mauve, yellow, or brown.

When shopping for spinel, a high-quality gemstone should have no visible inclusions. The more inclusions, the less valuable the gemstone. Spinel birthstones can be found in various cuts such as octagons, trillions, squares, rounds, ovals, pears, and cushions.

Courtesy American Gem Society

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Club Purpose

- to bring about a close association of those persons interested in earth science and lapidary arts
- to increase and disseminate knowledge about rocks, minerals, fossils, Indian artifacts and other geological materials
- to encourage lapidary art and the collection and exhibition of rocks, minerals, fossils and artifacts
- to conduct field trips, meetings, lectures, displays and an annual show for the edification of the public
- to cooperate with educational and scientific institutions and other groups in increasing knowledge and popular interest.

