

Four Corners Gem and Mineral Club

June 2024 Newsletter



Message from the President

We have had some changes in the Officers and Board of Directors recently. I stepped in to replace the President's position vacated by Mearl Webb last month. I will serve in this position until our elections in November. The current FCGMC Board consists of the following people.

Vice President: Toby Mourning
Treasurer: Cindy Pugsley
Secretary: Emelie Frojen

Directors

Shauna Dooley
Denise Galley
Charlotte Lenssen
Carlos Mañon
#5 Needs to be filled.
#6 Needs to be filled.

We need to fill Director positions on the Board that are vacant. If you are interested in serving on the Board then please contact me at gonzales_d@fortlewis.edu

President: David Gonzales

2024 Gem Show

Are you getting excited about the 70th Annual Gem and Mineral Show from July 12-14? If you want to contribute an item for the Silent Auction, please drop it off at the Clubhouse. This can include minerals, rocks, jewelry or other items that fit the theme of the Show. You can also contribute baked good for the dealers to enjoy during the event. The Gem and Mineral Show is a major undertaking and requires volunteers to do a various of tasks before and during the Show, and also the July 4th Parade. Set up for the Show starts on July 11. If you want volunteer then visit <http://www.durangorocks.org/gemshowvolunteers.html> or scan the QR code below. The

website lists all of the activities that need volunteers both before and during the event. Your help will be greatly appreciated.



Classes in June

The Club is pleased to announce an exciting lineup of classes in June including Introduction to Wire Arts and Cutting and Polishing Cabochons. These classes are a great way to learn a new skill or just have fun being creative. If you are interested, check this link to <http://www.durangorocks.org/events.html>.

Open Shop

A full schedule of Open Shop is listed at <http://www.durangorocks.org/events.html>.

Field Trips and Lectures

Bob Cuffney is leading a field trip on July 20th to explore some of the geology on Wolf Creek Pass. To learn more about field trips and sign up for them go to [Four Corners Gem and Mineral Club Field Trips - Four Corners Gem & Mineral Club \(durangorocks.org\)](http://www.durangorocks.org/events.html)

Events Around the Region (from Rock and Gem Magazine)

June 7-9, COLORADO SPRINGS, COLORADO: Annual show; Colorado Springs Mineralogical Society; Norris Penrose Event Center, 1045 Lower Gold Camp Rd; Fri. 10-5, Sat. 10-5, Sun. 10-4; Admission \$5/one day, \$8/multiple days, 12 & under FREE; Since 1963, the Colorado Springs Mineralogical Society (CSMS) has sponsored the Pikes Peak Gem, Mineral & Jewelry Show. We expect over 50 vendors, feature exhibits, auctions on-the-half-hour, door prizes, gold panning with the Gold Prospectors of Colorado, and kids activities; contact Lisa Cooper; Email: ppgmjshow@gmail.com; Website: pikespeakgemshow.com

June 14-16, BIG PINEY, WYOMING

G: Annual show; Sublette County Rock Hounds; Sublette County Fairgrounds, 10937 Hwy 189, Event Center; Fri. 9-5, Sat. 9-5, Sun. 9-3; Adults \$3, Seniors 60+ and kids under 18 free; Field trips, demonstrators, vendors, exhibits, kids activities, door prizes, and food concessions on-site.

Vendors with opals, Wyoming jade, jewelry, rough rock, slabs, cabochons, beads, fossils, specimens, jewelry-making supplies, and more; contact Jim Gray; Email: jimgray@wyoming.com

June 28-30, FARMINGTON, NEW MEXICO: Annual show; San Juan County Gem and Mineral Society; San Juan County McGee Park Riding Arena, Bldg. 8, 41 Rd 5568; Fri. 10-6, Sat. 10-6, Sun. 10-5; \$1 adults; kids 12 and under are free; Dealers- Demonstrators-Displays-Silent Auction-Raffle-Black Light Booth, Door Prizes every hour! Kids/Adults - Wheel of Gems-Grab Bags-Sand Dig-Rock Crafts-Displays; contact Jerry Worrell (Show Chair), (505) 360-1903; Email: jerry_worrell@msn.com; Website: www.facebook.com/groups/SJCGMScommunity

Other events in Colorado are posed at [Gem, Rock and Mineral Shows in Colorado](#)

Call for FCGMC Steward Coordinator

We are in need of a Steward Coordinator to schedule the stewards for open shop, inventory supplies, help with repairs, and organize some training sessions. If you are interested then contact myself at gonzales_d@fortlewis.edu or Cindy Pugsley at info@durangorocks.org.

Reminder about Club Access

The use of the shop facilities during non-published hours shall be allowed so long as: 1) there are a minimum of two members present at all times, 2) the members sign the attendance form and pay the applicable shop use fee, and 3) at least one of the parties in attendance is trained in and responsible for the same opening, closing, safety and operations procedures followed during published hours.

Please do not work in the Club alone. This is a safety issue. Recently, equipment has been left running with no person is in attendance. This is fine for the tumbler, but all other equipment must be shut off.

Xenoliths in the Desert

I recently visited my son Mathew in Las Cruces, New Mexico. During the trip, I wanted to visit the Potrillo volcanic field between Las Cruces and El Paso. This field formed within the Rio Grande rift, and is dominated by basaltic rock that forms various types of volcanoes and lava flows. The rocks originated from magmas produced by the release of burial pressure on the mantle when the earth stretched during extension, a process that continues today. This release of

pressure caused decompressive melting in the mantle and eruption of basaltic melts in the past 2.65 million years.

One featured that has always intrigued me is the Kilbourne Hole volcano located ~10 miles north of the U.S. border with Mexico. Kilbourne Hole and adjacent Hunts Hole are maar volcanoes. In the Potrillo volcanic field these volcanoes occur along the Fitzgerald fault, which is one of the faults within the Rio Grande rift. This type of volcano is distinguished by low, shallow crater rims rather than the defined cones of many other volcanoes. Maar volcanoes form when gas-charged magma erupts or when magma intrudes into groundwater. The explosive eruptions are characterized by strong lateral blasts. Ship Rock is the exposed deep roots of a maar volcano that erupted in northwestern New Mexico ~25 million years ago.

We ventured early in the morning to beat the relentless heat, driving ~30 miles south of Las Cruces on paved road and then turning west for about another 20 miles into the desert. The difference between the verdant areas next to the Rio Grande River and the desert was stark. After navigating a series of roads, some covered in thick sand, we finally arrived at Kilbourne Hole. The temperature was rising quickly but we decided to hike from the rim of the volcano into the crater. At one point we stopped to view the volcano and I mentioned that xenoliths of dunite (olivine rich) are known from this area. Stopping to look around on the surface of the crater rim we noticed that green dunite xenoliths littered the surface. Dunite is a type of ultramafic rock that forms by crystallization and sinking of early-formed olivine from a melt. The olivine is denser than the melt and sinks to form an accumulation of crystals. At some point mafic magmas interact with these olivine accumulations and bring them to the surface as xenoliths; this term means foreign rock. Most of the xenoliths we found ranged from walnuts to tangerines in size. The green of the olivine against the black basalt rock is dramatic.

Kilbourne Hole is a fascinating volcanic feature, and if you enjoy places of solitude with no people, this is a place for you. Beware, however, that this area is isolated and the desert is an unforgiving place. The lure of green olivine-rich rocks, however, is well worth the adventure. Just be prepared.



View of Kilbourne Hole volcano looking south. Notice the distinctive low rim and broad crater that defines this maar volcano.



Dunite xenoliths from Kilbourne Hole. The largest piece is ~3 inches in maximum dimension.