

Monthly Newsletter of the *Kern County Mineral Society (KCMS)***President's Message**
James May - KCMS
President 2023

As we approach the Super Bowl on Sunday, the first question, besides who wins Super Bowl XLVII, is in which location of the two cities do we find better rock, mineral, and fossil collecting. Near Philadelphia there are numerous places to collect quartz crystals, petrified wood samples, and the Devonian-aged Mahantango Formation which is a hotbed for trilobites like *Phacops rana*. There are also numerous mine localities with tailings a plenty. When we look to Kansas City, there are the Show-Me-Rockhounds, a popular club for mineral collectors. Kansas City has abundant limestone beds with beautiful blue calcite. There are numerous quarries to hunt for opals, galena, and Missouri's state rock mozarkite, chert, collected near Harry Truman Lake.

As the weather starts to warm and the recent rains have exposed fresh material at the surface, it's certainly a great time to get out on field trips. Last month we had an excellent field trip out to North Edwards in search of Ruby Ridge, where there was an abundance of red jasper for everyone to collect. The temperature was perfect, and the Sun shined brightly on us all. We also visited the North Edwards yellow jasper location and finished off the day collecting narrow-banded and thick-banded multi-colored travertine. If you were not able to attend, we have other future field trips planned.

Our January General Meeting was a popular event with Paul Hirst as our special guest presenter. He shared with us what mineral miners were able to collect and some of the hazards and unique finds that were found on his adventures. We were all amazed by the samples he brought in to show us.

Our next General Meeting is scheduled for Thursday, February 16th at 6:30 PM. We have a couple of fun items on the agenda, and we will cover our upcoming schedule for February and March. Hope you all can attend.

Most of you by this time will have received your application for dues in 2023. Please stay up on your dues so you can take advantage of the field trips and workshops.

Our field trip for February will be to Burro Schmidt Tunnel and Agate Hill. We will be leaving promptly at 7:30 am from Harbor Freight on Saturday, February 18th. Please note the confirmation tab on our KCMS emails if you plan on attending this exciting adventure. Please bring flashlights for tunnel.

Our next workshop is scheduled for February 25th at 9:00 am. I know it has been a while, and it will be great to get back to cutting and shaping rocks. We also have a cabochon class schedule for those who want to partake. After lunch, we plan on heading over to the Rock Sale at the Buena Vista Museum.

In March we have two events scheduled on back-to-back weekends. The Wind Wolves Spring Festival on the weekend of March 18th- and 19th and the CSUB Emergency Preparedness event on Saturday, March 25th. We will also have the workshop open for those who want to cut and polish rocks. Any help that you can provide at these two events would be greatly appreciated. -- James

Next General Meeting

Thursday, February 16th at 6:30 PM
East Bakersfield Veterans Hall - Upstairs Room
Address: 2101 Ridge Road, Bakersfield, CA



The Burro Schmidt Tunnel



NEXT FIELDTRIP

Saturday, February 18th, 2023

**Burro Schmidt Tunnel and Agate Hill
Meet Bernie at Harbor Freight at 7:30 AM**



**Next Rock and Lapidary Workshop
(and Wire Wrapping Workshop)
Saturday, February 25th at 9:00 AM
The Fleishauer's House**



The Great Lava Shortage of 1912

Workers refilling the Earth's core with molten lava during the Great Lava Shortage of 1912.

As we move into the year 2023, we would be remised to not discuss a famous event from over 100 years referred to as the "Great Lava Shortage of 1912." It was a unique time in geology when a meteorologist from Germany named Alfred Wegener proposed that Earth's continents were not fixed in time and space but had the ability to glide along like giant puzzle pieces until they ultimately formed a convergence of pieces called a *supercontinent*. Wegener coined the location *Pangaea* for the supercontinent meaning "all lands." His hypothesis was originally published in German and had many lines of evidence supporting his radical idea. His knowledge of *Mesosaurus* and *Glossopteris* fossils, matching rocks in the Appalachians to Atlas to Caledonian mountain ranges, glacial striations and coal deposits matching nicely helped support his argument, but ultimately a credible mechanism to move the continents was not easily ascertained. Wegener knew the effects the Sun and Moon had in lifting and ebbing tides. Perhaps this was the mechanism that could possibly move these huge blocks of continental crust to and from across the ocean basins.

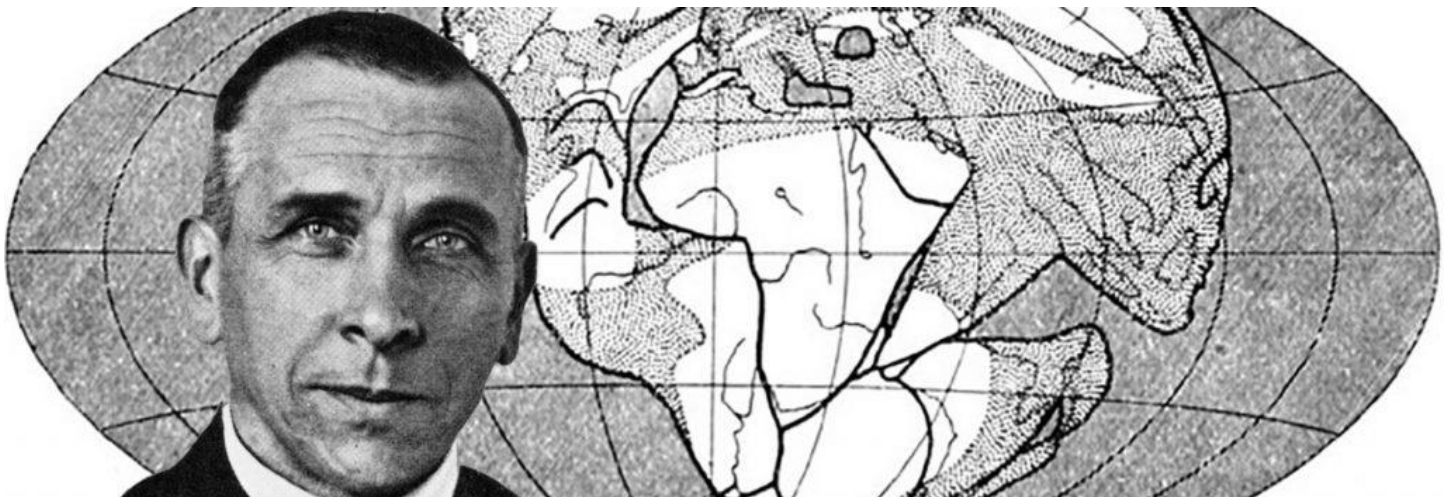
If we look into Earth and visit the different layers, we see the subdivision is based on compositional components. Geologists have long believed in the three-layer model with the center, or core, being comprised of a nickel-iron alloy. This helps explains why we have magnetic poles and the overall bulk density values calculated for Earth as iron is very dense. The most massive layer is the middle, or mantle, and contains many different minerals that have adjusted to the high pressures. Diamonds for instance have adjusted well

to this pressure as this polymorph of carbon is stabilized. Mostly the mantle is comprised of the rock peridotite which can be seen at various locations on Earth's surface. The uppermost layer is the crust of which there are two varieties. The thicker, low-density type made of granite-like rocks and the thinner, high-density type made of basalt. The variance in thickness is why water sits in a basalt bathtub while we ride high and dry above in our stately homes on granite. It is interesting to ponder the evolution of life if tectonic forces didn't generate these different crust types.

If we now look a little closer into the mantle, geophysicists have subdivided it based on material properties like if it is solid, liquid, or gas. It's hard to imagine the Earth being liquid, or molten, but that's exactly what we see in the outer core of molten iron and nickel. Again, this is supported scientifically by magnetic polarity and shifts in dominant polarity and the resistance of liquid to shear wave propagation. Geophysicists also noted a layer in the upper mantle that behaves oddly like a solid-liquid hybrid. A flowing solid like delicious Morro Bay salt-water taffy. This layer acts like a lubricant that allows the material above it to move about. It is referred to as the asthenosphere and only sits a mere 1 or 2 degrees above the rocks melting temperature allowing it mobility. Perhaps this is what was meant by the Great Lava Shortage of 1912, was this to poke fun at Alfred Wegener, or his proponent's pouring lava into New York sewer lines to move the continents along quicker?

One of the challenges of working with molten lava is the extreme temperatures that are needed to melt rock. Even rock with the lowest of melting points would still need to be heated up to temperatures of over greater than 750 degrees Celsius (1400 degrees Fahrenheit). The idea of pouring molten rock back into the Earth could never occur but the challenge was accepted by petrologist Norman L. Bowen who heated up powdered rock in chambers up to extremely high temperatures to observe the order in which minerals crystallize out from lowest to highest melting points. This led to an important concept in igneous petrology referred to as Bowen's Reaction Series.

Alfred Wegener died long before his ideas could be validated in the *Plate Tectonic Model* proposed in 1968. The continents do move about but on larger vessels called tectonic or lithospheric plates. They move at very slow rates per year (a few centimeters per year) but over a few hundreds of millions of years that's progress. The Atlantic Ocean is relatively young, as it is an offspring of the breakup of *Pangaea* 200 million years ago. If you ever flew over from the United States to Europe, you can attest to the sheer size of the Atlantic Ocean. Although adding more lava into the Earth might seem like a noble idea, this cycle of moving plates is driven by deeper convection currents that we can't get to and the unique duality of pressure and temperature in the asthenosphere. If we had the ability to time travel into the future a few hundred million years, we would see the convergence of the continents again into one supercontinent. The real question would be, would we be good neighbors? *Below is a picture of Alfred Wegener against the backdrop of his supercontinent Pangaea.*



**RUBY RIDGE FIELD TRIP
SATURDAY, JANUARY 28th 2023
A Beautiful Day to be in the Field!**



Date: Saturday, January 28th Weather: Sunny, warm (Mid 60's)

Attendees: (Left to Right) – Becky, Michael, Paula, Monica, James, Bernie, Maricruz, Julio Jr., Jack, Janice, Anita, Paul, Renee, and Julio. **Lower Picture:** Julio Junior's Rock Store



Above Picture: Jack Stewart Collecting at Ruby Ridge. **Lower Picture:** Janice is search of rubies. Paula off in the distance also collecting rubies.

**UPCOMING ROCK, MINERAL, AND GEM SHOWS****UPCOMING ROCK AND MINERAL SHOWS – WINTER 2023**

February 18-19, 2023 – Antioch, CA 94509

Antioch Lapidary Club

Contra Costa County Fairgrounds, 1201 West 10th St. Antioch, CA 94509

Hours: 10 AM to 5 PM Saturday and Sunday

Contact: (925) 301-6957, edysnyder@gmail.com

Website: <http://www.antiochlapidaryclub.com>

February 25-26, 2023 – Vallejo, CA

Vallejo Gem and Mineral Society

Solano County Fairgrounds, McCormack Hall, 900 Fairgrounds Drive, Vallejo, CA 94589

Hours: 10 AM-5 PM

Contact: (415) 254-1506, ddahonvgms@gmail.com

Website: <http://vjgems.co/>

March 4-5, 2023 – Ventura, CA

Ventura Gem & Mineral Society

Ventura County Fairgrounds, 10 W. Harbor Blvd., Ventura, CA 93001

Hours: Saturday 10 AM-5 PM, Sunday 10 AM – 4 PM

50 exhibits of gems, minerals, fossils and lapidary arts; ongoing demos of lapidary and jewelry making; raffle prizes & silent auctions; a Second-Hand Treasures Store & plant sale; 15 dealers; children's activities and free resources for teachers. A SoCal tradition for 6 decades and counting!

Contact: (805) 312-8467, info@vgms.org

Website: <http://www.vgms.org>

March 10-12, 2023 – Stoddard Wells

Victor Valley Gem and Mineral Club

47th Annual Stoddard Wells Rockhound Tailgate

Time: Friday, Saturday & Sunday – 9 AM – 5 PM

Contact: (909) 657-7200, marklantz53@gmail.com

Club Address: 15056B Seventh St., Victorville, CA 92395

Phone: (760) 243-2330 and leave a message. Email: president@vvgmc.org

Website: <http://vvgmc.org>

[Tailgate-2023-Info.jpg](#)

2023

10th Annual
Rock & Mineral
Sale

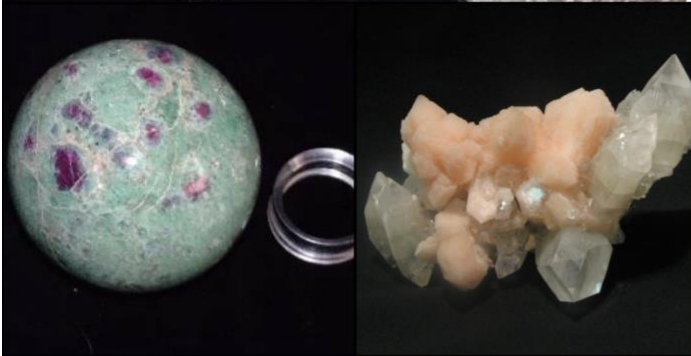


Join Us

SATURDAY
FEBRUARY 25th
10 AM-4 PM

SUNDAY
FEBRUARY 26th
12 PM-4 PM

FREE ADMISSION



Looking for a unique, beautiful gift or just want to add to your collection?

- Lapidary Rocks including petrified wood and spheres
- Stunning Minerals and Crystals from Mexico, China, India, and U.S locations including California
- Fossils from the Kern County's Sharktooth Hill area and the world.
- Plus some special mineral specimens from Tim Elam's personal collection!

For Kids: Lots of colorful rocks, crystals and fossils for \$1.00 or less, including FREE.

Teachers: All these are great for Educational purposes too.



661-324-6350



2018 Chester Ave
Bakersfield, CA 93301



buonavistamuseum.org



KCMS CLASSIFIEDS

KCMS is proud to announce the addition of a Classified Ads Section to the Pseudomorph Newsletter!!

Calling on all members who have any items that they want to sell or those looking to buy.

Rocks, Minerals, Rock Saws, but that's not all!! We will also accept Lawn Equipment, Electronics, Homemade Crafts, etc.

The Pseudomorph Classifieds will not be limited to only rock & mineral related items, but to any items members are looking to sale.

When making a classified ad for the newsletter be sure to include:

- Description of Item
- Asking Price
- Contact Information
- Picture(s)

Pictures are not necessary but will be added if provided. Please send photographs in JPEG (.jpg) format if possible.

Classified Ads for the Pseudomorph are due to the editor no later than the first Thursday of each month, via Email or by U.S. Mail.

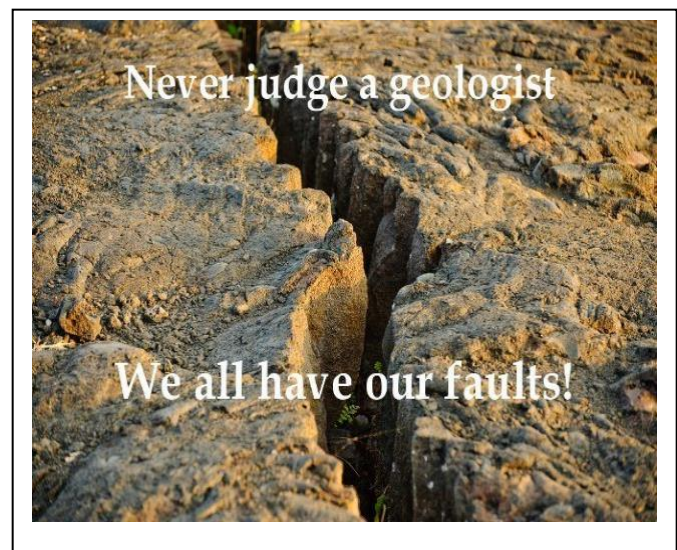
James May, Editor
Email geojim9@hotmail.com

If you have any ads, you want added to the next Pseudomorph, please email me the details and I will post.

Don't Forget the BREAKFAST CLUB

The first Wednesday of each month, year-round, KCMS Members and occasional guests meet at 8:30 AM at Lorene's Coffee shop at 23rd and Eye streets in downtown Bakersfield. Everybody is welcome to attend!

-- Dalia Hernandez



KCMS Monthly Meeting

Please join the KCMS at 6:30 p.m. on Thursday, February 16th at the East Bakersfield Veterans Hall located at 2101 Ridge Road in Northeast Bakersfield. We hope you can attend, and visitors are always welcome.



Kern County Mineral Society

is a Charter Member of the
California Federation of Mineralogical Societies

and is affiliated with the
American Federation of Mineralogical Societies



The Kern County Mineral Society, Inc. was organized in 1935 to promote the study of mineralogy and allied earth sciences, to collect and study minerals and rocks, to study and practice the techniques of jewelry making, to promote good fellowship and good citizenship and to promote education in the earth sciences. Membership dues are \$20 for singles, \$25 for couples.

KCMS WEBSITE: <http://www.kerncountymineralsociety.org/>

Pseudomorph Subscriptions

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KCMS will email a free .pdf subscription to any high school, college, or university student who wishes to receive it. Just email a request to geojim9@hotmail.com

Articles for *The Pseudomorph* are due to the Editor no later than the first Thursday of each month, via Email, via Facebook, or by US Mail. Please send photographs in JPEG (.jpg) format if possible, and text as Notepad, Word, or other simple text for me to paste and edit.

James May, Editor
Email geojim9@hotmail.com

Facebook: Kern County Mineral Society

Articles in this publication may be reprinted if attribution is given to the author and to *The Pseudomorph, Monthly Newsletter of the Kern County Mineral Society*



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FUN, GAMES, & FIELD EXCURSIONS



FEBRUARY'S MONTH'S MYSTERY HEART SLAB



Here is this month's mystery slab. Please submit your answer to kerncountymineralsociety@gmail.com and geojim9@hotmail.com. Each month's winner will be placed in a drawing at the end of the year for a special prize. Last month's winner was Michael Sarr who correctly identified the slab as fluorite or watermelon fluorite. Nice work Michael.

Mystery Slab Hint: One of the manganese (Mn) bearing minerals. This is the softer and more cherished of the two common pink manganese minerals. It is classified as a non-silicate carbonate mineral. Great gift for your special Valentine's sweetheart. It has a Mohs Scale of hardness of 3.5 so good for carving.

To make sure you are credited with the correct answer, please email the Kern County Mineral Society and James (see email addresses above). We would like to keep track of those who get the correct identity of the mystery slab each month.

JACK STEWART'S WORLD FAMOUS PEANUTBUTTER PIE



INGREDIENTS NEEDED

- **Peanut Butter:** Use either *creamy peanut butter* or *natural peanut butter*. See recipe notes for tips on working with natural peanut butter! Jack uses Jiffy due to the best texture!
- **Heavy Cream:** Homemade whipped cream is always better in my opinion, but *cool whip* topping works great too! We like to add cream of tartar to our whipped cream because it helps to stabilize it so it will hold up better.
- **Cream Cheese:** Use full-fat cream cheese for the best flavor.
- **Powdered Sugar:** *Powdered sugar* dissolves more easily into the batter than granulated sugar.
- **Toppings:** We are keeping it simple with chopped peanuts and flaky sea salt.
- **Pie Crust:** A baked, all butter pie crust is very easy to make and gives the pie such a delicious texture. *A store-bought pie crust* can be used if you're in a pinch for time.