

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

We are officially in the *dog days of summer* trying to make the best of the hot days and keeping busy making cabochons and jewelry while eagerly awaiting the beginning of the Kern County Fair in September. As a result, much of our upcoming efforts will be geared towards the annual extravaganza at the local Fairgrounds.

Hopefully you all can attend the General Meeting scheduled for this upcoming Thursday, August 17th at the East Bakersfield Veterans Hall. We will be back upstairs in the smaller room and our meeting will start at 6:30 pm. We have a special guest speaker, Monica Hinson, describing her adventures in mapping in the Pyrenees earlier this summer. It should be a fabulous presentation and we will get an insight into some of the geologic wonders of Spain. We will also have a couple of fun games for prizes, mouthwatering dessert items, and the comradery of the Club. We will also have our initial schedule for the Kern County Fair for you to fill in a few dates that you are able to work. Please remember the Fair lasts a total of twelve days and we need all the help we can get. It is one of the most important functions we do as a Club. This has been a tradition seeing the red vests at the Fair and people have fond memories of buying rocks and minerals at the Fair with their parents or grandparents.

We also decided to enter two display cases for the Club at the Fair. One of the display cases will be centered around some of the unique projects that are conducted at Camp Paradise. The Club was excited to be able to award two half scholarships this year.

Our second display case is a rock orientated display and is a combination of the great ideas and spearheaded by our active membership.

Unfortunately, with the heat and limited access to locations in the area, we will not be having a field trip this month and next month. Instead, we will be hosting two workshops. The first workshop will be this Saturday, August 19th from 9 am till Noon. Anita will be leading a workshop on making magnets. She has a bunch of cut stone with flat edges so that the magnets can be attached easily onto the back. We hope to make about 100 magnets that we can sell at the Kern County Fair. We also would like to have ice cream and toppings for this event. The second workshop will be on Saturday, August 26th at the Fleishauers. We will be filling the grab bags with polished stone. In the past, we have taken the finished polished rock and spread it out on the tables and placed into the grab bags. We would like to fill approximately 450 filled grab bags.

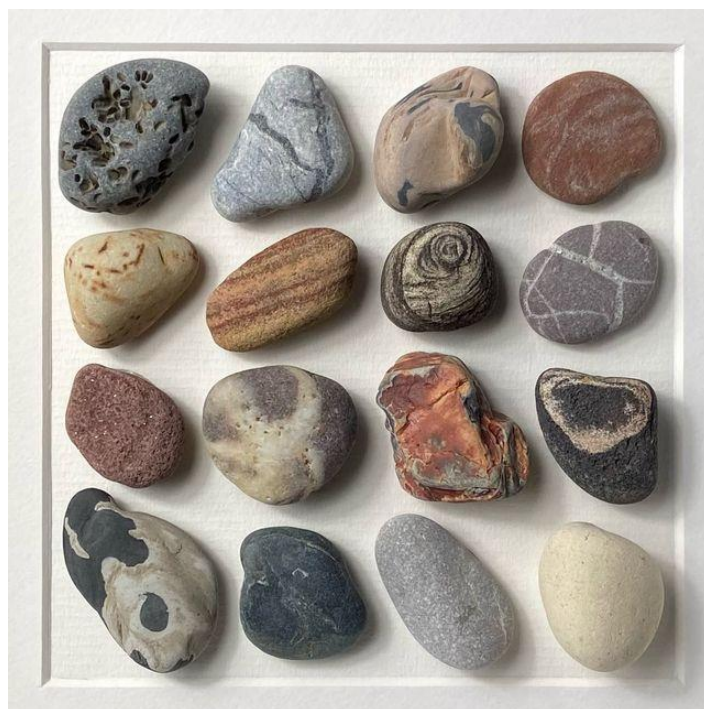
The Mountain Festival is scheduled for this upcoming weekend up in the cooler weather of Tehachapi. The Tehachapi Valley Club typically has good material they sell during their silent auction, and they will be having a good number of vendors if you are looking for a more special item. It's definitely worth the tip up the hill.

Thinking a little further ahead, our September General will be held on the second Thursday of the month to not conflict with the upcoming Kern County Fair. Please mark your calendar accordingly. -- James

Next General Meeting
Thursday, August 17th at 6:30 PM
East Bakersfield Veterans Hall
2101 Ridge Road, Bakersfield, CA



Next Rock and Lapidary Workshop
Saturday, August 19th at 9:00 AM
East Bakersfield Veterans Hall



We will be making Rock Magnets

LAST FIELD TRIP
SATURDAY, JULY 15th, 2023
San Simeon Creek



Lower Picture: Finished 4-inch sphere from rock collected from San Simeon

ADVENTURES WITH SB

**San Simeon Creek Field Trip (Saturday, July 15th, 2023)**

We all know the San Simeon area by the well-known Hearst Castle, the beautiful sand beaches with crashing waves and maybe if you are lucky a moonstone waiting for you to discover.

The less known area of San Simeon Creek area was visited by 38 members of the Kern County Mineral Society and the San Joaquin Valley Lapidary Society on July 15th to look for rocks.

After the rainy winter/spring the creek area changed a lot. New members were excited to see the amount of rock to investigate and the seasoned members were in awe of the changes the creek made to the collecting area. We were all excited to see what new finds were waiting for us. A month ago, the creek was knee deep, but a few short weeks later there was little water in the creek. The amount of water that ran through the creek after the winter storms was evident by the rocks that were moved and the road that was partially washed away.

The San Simeon Creek area is well known to rockhounds for the beautiful, colorful jaspers found in the area as well as agates. It wasn't a matter of if I'll find something on this day it was a matter of which rocks do I want to take without seeming like a hoarder. We all awed at the beautiful colors and got busy filling our buckets. There were many yard rocks picked up, those interested in rocks for Ming trees had hundreds to choose from, the cab makers were able to find beautiful small treasures to make into jewelry, the sphere makers had plenty of large rocks to take home and make into beautiful round balls the only problem was getting the heavy rocks to the truck but we had muscle with us that was willing to haul rocks across the small running creek to the trucks.

But alas there was one member who was disappointed that the large rock he had his eye on from the last trip was no long waiting there for him. The winter storms moved the rock out of the area. His disappointment didn't last long, he was soon gathering new finds to add to his collection. We all were fortunate to find new treasures to add to whatever it is we do with the rocks that we collect.

After a morning of hunting, we gathered back at the parking area for a potluck. There was no shortage of great food. After refueling our bodies, we were ready to either start rock hunting again. hitting the beach area or possibly Cambria for a little shopping.

A heartfelt thank you to Bernie for being a great scout, to all the new members who attended and to the seasoned members who came to make this the largest field trip in recent history. It was nice to see so many out enjoying the day. I'm sure we are all looking forward to seeing what the rocks from today's trip will be turned into by the talented members.

I am anxiously waiting for the next trip, wishing you all Happy Hunting.



UPCOMING ROCK, MINERAL, AND GEM SHOWS



UPCOMING ROCK AND MINERAL SHOWS – AUGUST/SEPTEMBER 2023

August 19-20, 2023 – Tehachapi, CA

Tehachapi Valley Gem and Mineral Society
Annual Tehachapi Valley Gem and Mineral Show
500 East “F” Street, Tehachapi, CA 93561

Hours: 9 AM – 5 PM

Gems and minerals, jewelry, activities for kids and much more. Free admission.

Contact: (661) 972-1117, travis462@outlook.com

Website: <https://www.tvgms.rocks>

August 26-27, 2023 – Arcadia, CA

Pasadena Lapidary Society
Arcadia Masonic Lodge, 50 W. Duarte Rd., Arcadia CA 91007

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

Contact: (626) 260-7239

Website: <https://pasadenalapidary.org>

September 16-17, 2023 – Monterey, CA

Carmel Valley Gem & Mineral Society
Monterey Fairgrounds, Monterey, CA

Hours: 10 AM – 5 PM

Contact: (831) 801-5887, susieharlow@gmail.com

Website: <http://cvgms.rocks>

September 16-17, 2023 – San Luis Obispo, CA

San Luis Obispo Gem and Mineral Club
San Luis Obispo Veteran’s Memorial Building, 801 Grand Avenue, San Luis Obispo, CA
93401

Gems by the Sea Show. Admission: \$5, Children 12 and under Free. Free parking.

Contact: 2023show@slogem.org

Website: <http://slogem.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, August 17th 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

The Pseudomorph is published 10 times a year (September through June) by Kern County Mineral Society, P.O. Box 12305, Bakersfield, CA, 93389-2305. Subscription included with Membership. Non-members \$5.50 per year, Jan. thru Dec., not prorated.

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

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 **FUN, GAMES, & FIELD EXCURSIONS** 

AUGUST'S MONTH'S MYSTERY 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 Maricruz Velasquez who correctly identified the mystery slab as bean field agate. Awesome work Maricruz.



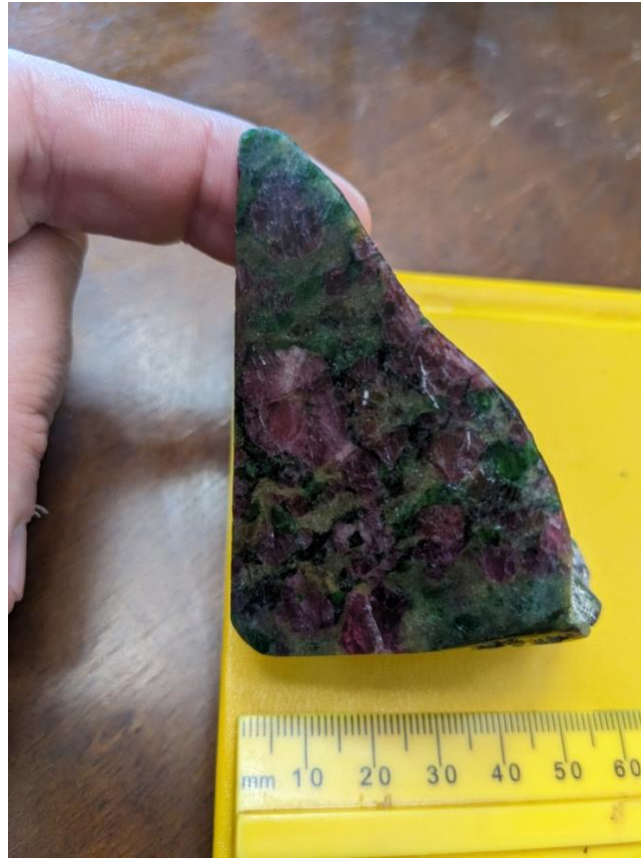
Mystery Slab Hint: A beautiful continuous red striped volcanic rock rich in SiO₂. It crystallizes very quickly and technically does not form from minerals but instead *mineraloids*. It is a powerful grounding stone that's commonly known to give its owners the strength needed to stand on their own convictions against any and protecting its owners. Sounds a bit like Jenna my guard dog.

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.



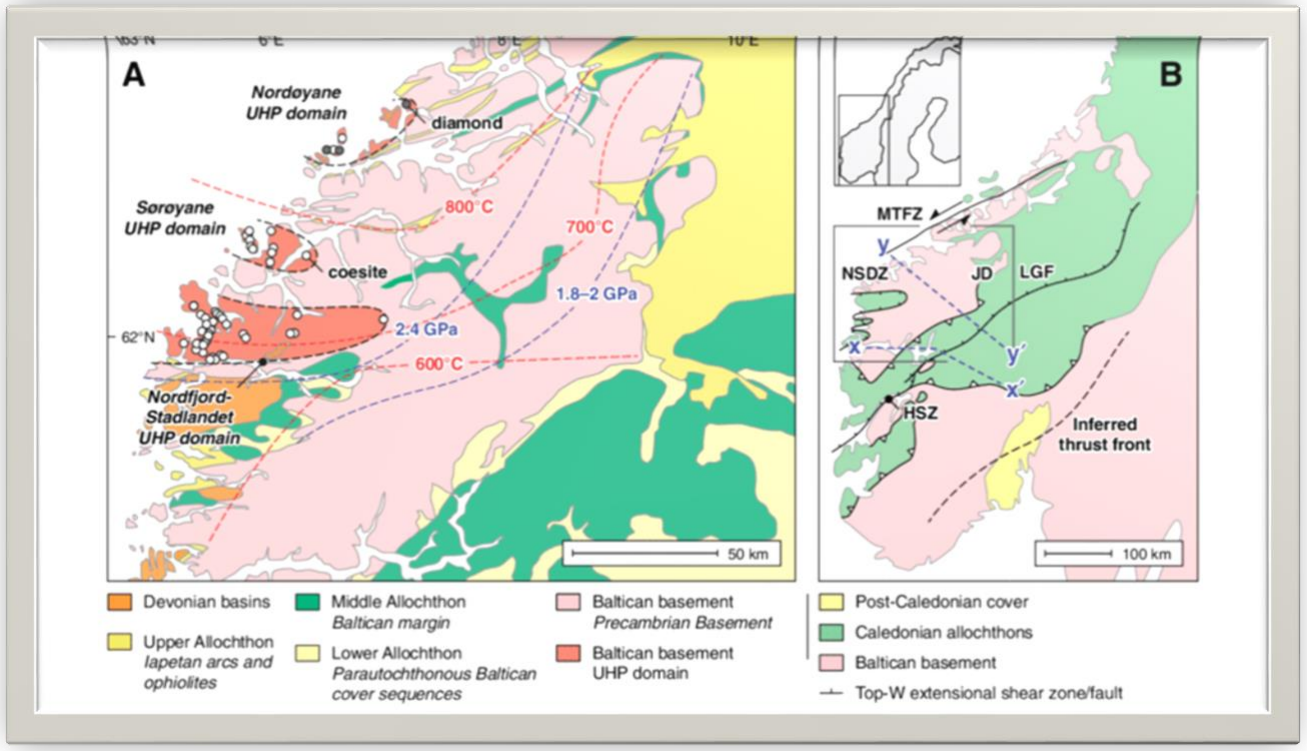
Websterite

A Unique Ultramafic Mantle Rock

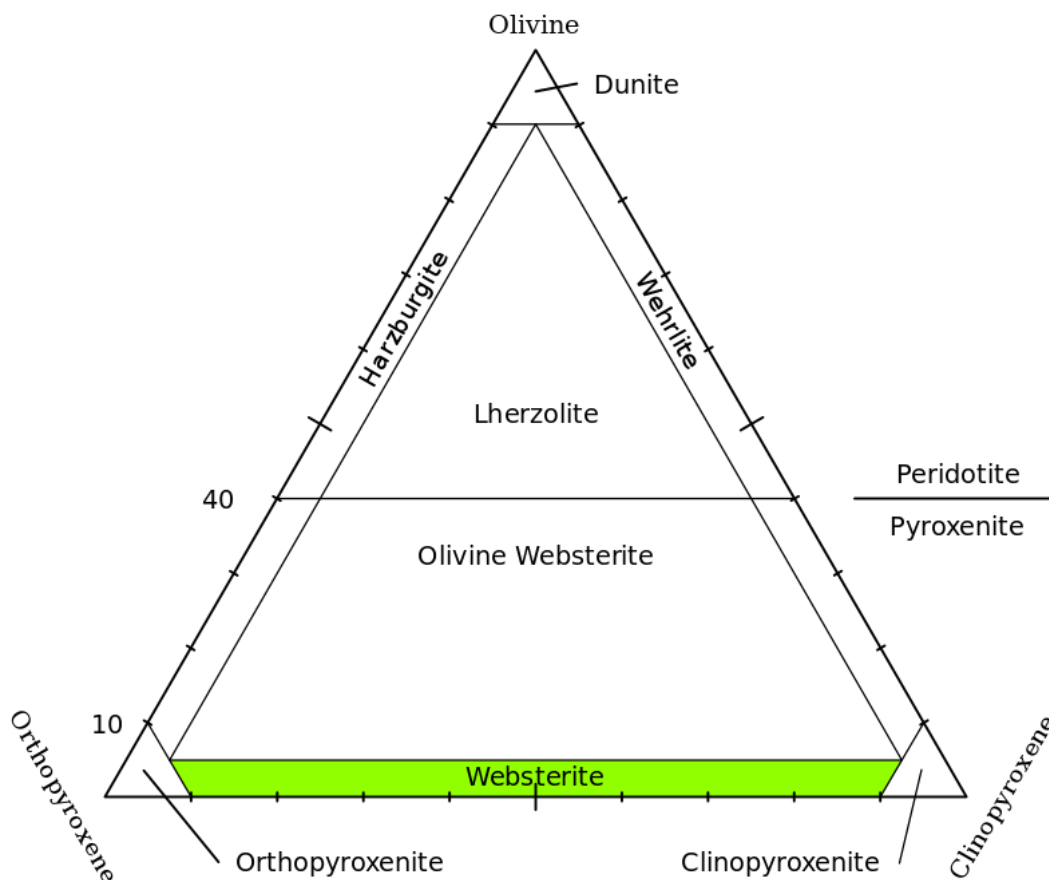


The journey to collect samples of the rock *websterite* started as a harmless discussion with a colleague who has the surname Webster. In passing, it was mentioned that he had a rock named in his honor which led us to a location in Reedley to purchase a few samples of this unique rock. All samples that were collected by this Norwegian collector, including the one shown above, were mined from a location in Norway which is known for its world class varieties of this rock. The actual name *websterite* comes from its locality name found in North Carolina. *Websterite* is an ultramafic igneous rock that consists of roughly equal proportions of orthopyroxene and clinopyroxene. It is actually a specific type of pyroxenite. The sample above has garnet and olivine crystals hence not a true *websterite*. I tried to preserve as much of the sample as possible when cutting and it polished up very nicely. I like the free-form varieties of the rock, but cabochons and other forms of jewelry can be made from the left-over pieces. *Websterite* is a unique rock with a storied history that should be added to anyone's growing rock collection.

There are several locations where *websterite* can be found in Norway. One example is the Bardane on the island of Fjørtoft in Western Norway where microdiamonds were found in a megacrystic garnet *websterite* pod. Another example is the cratonic mantle garnet *websterite* from the Western Gneiss Region (WGR) in Norway. A geologic map showing the WGR is shown on the following page. A picture of the locality is also shown below the geologic map.



A sample of rough *websterite* is shown below and you can see garnet and olivine crystals included into the pyroxene-rich rock. Petrologists, those, who make a living studying rocks, use a triangular diagram to differentiate the pyroxene rich rocks from olivine-rich rocks shown towards the top. A rock with a high percentage of olivine is called a Dunite. All rocks shown on the upper half of diagram are forms of peridotite which are common rocks found in the mantle. The rocks shown in the lower half are rich in pyroxene and referred to as pyroxenites. *Websterite* is a pyroxenite as shown in the triangular diagram. The mantle is the layer found beneath the crust and in oceanic lithosphere the basaltic crust can be very thin allowing access to the unique and colorful mantle rocks below.



Pyroxenite composition is contain at least 90 percent pyroxene group minerals, such as augite, diopside, hypersthene, bronzite, or enstatite. Pyroxenite also contain olivine and oxide minerals. Pyroxenite has less olivine than peridotites. The principal minerals usually found accompanying pyroxenites, in addition to olivine and feldspar, are chromite and other spinels, garnet, rutile, and magnetite. It has been proposed that large volumes of pyroxenite form in the upper mantle. Rare metamorphic pyroxenites are known and are described as pyroxene hornfels. Websterites, as shown on the diagram, have equal percentages of orthopyroxene and clinopyroxene and is a form of pyroxenite. *Websterite* can occur as pyroxene or include olivine crystals and therefore classified as olivine *websterite*.

They frequently occur in the form of dikes or segregations in gabbro and peridotite: in Shetland, Cortland on the Hudson River, North Carolina (*websterite*), Baltimore, New Zealand, and in Saxony. They are also found in the Bushveld Igneous Complex in South Africa and Zimbabwe.

Classification diagram for peridotite and pyroxenite, based on proportions of olivine and pyroxene. The pale green area encompasses the most common compositions of peridotite in the upper part of the Earth's mantle.

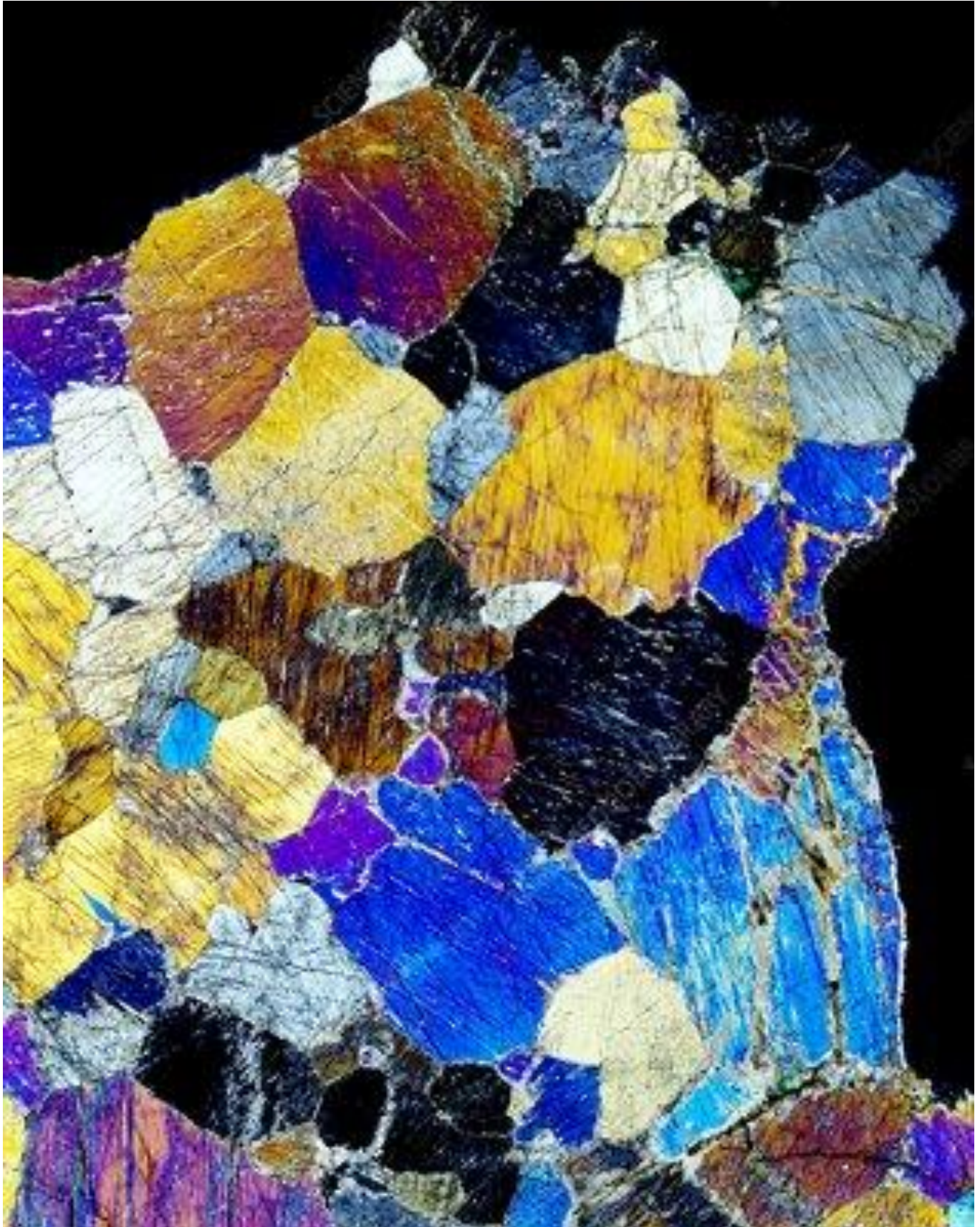
The pyroxenites are often subject serpentinization under low temperature retrograde metamorphism and weathering. The rocks are often completely replaced by serpentines, which sometimes preserve the original structures of the primary minerals, such as the lamination of hypersthene and the rectangular cleavage of augite. Under pressure-metamorphism hornblende is developed and various types of amphibolite and hornblende-schist are produced. Occasionally rocks rich in pyroxene are found as basic facies of nepheline syenite a good example is provided by the melanite pyroxenites associated with the borolanite variety found in the Loch Borralan igneous complex of Scotland.

Uses

- Countertops, Decorative Aggregates, Interior Decoration, Kitchens
- As Building Stone, As Facing Stone
- Curbing
- As Dimension Stone, Building houses or walls, Cement Manufacture, Construction Aggregate, for Road Aggregate
- Cemetery Markers, Commemorative Tablets, Laboratory bench tops, Jewelry, Sea Defence, Tombstones

References

- Bonewitz, R. (2012). *Rocks and minerals*. 2nd ed. London: DK Publishing.
- D.G.Pearson.,D.Canil.,S.B.Shirey (2003) *Mantle Samples Included in Volcanic Rocks: Xenoliths and Diamonds*, Available online 7 June 2004, <https://doi.org/10.1016/B0-08-043751-6/02005-3>



Thin section made from a sample of *websterite*. An assemblage of pyroxene minerals and olivine.