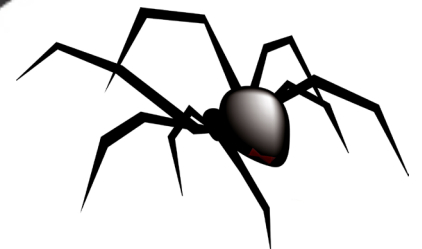


The Sierra Pelonagram



October 2019



... Member of the California Federation of Mineralogical Society Inc. ...

The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.



Hello to All!

It has been a long summer break for me and Heidi as we were still on vacation in September. Thanks to Julie Tinoco, vice-president, for running the September meeting while we were away. The fact that we were gone also meant that Heidi didn't do a September Pelonagram, so you will see a doubling up of meeting minutes in this issue.

Gilchrest Farms outreach is coming up rapidly. We will be there for the entire weekend of October 26-27 from 9-3, plus set up and tear down. We have had several people sign up for duty, but can always use more. Plenty of people means we can also roam the venue to see what else is going on. Let Heidi know if you want to participate. This is a fund-raiser for the club which pays for insurance, dues to the CFMS, parties, and equipment upkeep and supplies.

So have a great rest of your October, I hope to see you all at the General Meeting on Tuesday.

Bill Webber,
President, SPRC

Happy Anniversary to Me!

This month marks the 10th Anniversary of me being the publisher/editor of the Pelonagram. Boy, has time flown by! Heidi

New Members

Welcome to the club. You will find knowledge and skills and friendships that will last a good long time!

The Strong Family: Gary, Rati and Naomi
Mark and Ashton Scott
Garrett Holt

Birthdays

September

JP Castilla
Cheryl Cogan
Logan Gunter
Owen Gunter
Alexandria Smith
Margaret Stamboulia
Julie Tinoco

October

Omid Aeen
Alexander Hamilton
Ashton Scott
Katherine Webber



Officers:

President – Bill Webber
Vice-President –Julie Tinoco
Secretary: Heidi Webber
Treasurer –Shana Brunes-Ruiz
Federation Director (CFMS/AFMS) --Evelyn Velie

Chairpersons:

Claim--Mike Serino
Donation Rock Table--Ron and Akiko Strathmann
Equipment--Bill Webber
Field Trips – Julie Tinoco
Historian -Open
Hospitality – Ron Rackliffe
Membership – Heidi Webber
Website-- Larry Holt
Pelonagram Publisher, Editor – Heidi Webber
Programs –Tina White
Publicity –Bruce Velie
Sunshine--Brigitte Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at:

**The Clubhouse of the Greenbrier
Mobile Estates EAST
21301 Soledad Canyon Rd
Canyon Country, CA 91351**

Contact the Club or the Sierra Pelonagram Editor at:

Sierra Pelona Rock Club

P.O. Box 221256

Newhall, Ca. 91322

Or e-mail: hwebber@pacbell.net

Visit the SPRC website www.sierrapelona.com

Board Meeting Minutes

Sierra Pelona Rock Club

Date: Sept. 3rd, 2019

Board Meeting Began at: 7:09pm

Attendees: Julie Tinoco-Vice President/Field Trip Planner, Shana Ruiz-Treasurer, Evelyn Velie-CMFS Representative, & Bruce Velie, member

Welcome back Sierra Pelona Rock Club. The summer months are over as we start to get into fall & back to our regular routine. We talked about our Gilchrist fundraiser & agreed on the dates of Oct. 26th & 27th 2019 which is the weekend before Halloween. The Board Members voted on doing it 2 days this year. We will need volunteers. So, please see either Bill Webber, Heidi Webber, or Julie Tinoco if you can volunteer your time on either days.

It is a fun event, Gilchrist pumpkin patch offers good food, arts & crafts booths, petting zoo, live band, & of course pumpkins! If you can't volunteer-please just come on out with the family & support your favorite Rock Club!

We next discussed the 2 fieldtrips we will be having this month. Sept. 21st we will be going to Ventura County's local beach of Carpentaria. Since, it is still warm this will be fun for the whole family. We will be looking for shells & different kinds of rocks. There may be some jadeite out there. Afterwards, there are some great eateries around Carpentaria's downtown area or bring your lunch for a nice day at the beach.

Next fieldtrip is on Sept. 26th, for the adults only to the Silver Queen Mine in the Rosemond area. There are only 15 spots. So, if you are interested please get with Julie Tinoco or email her to save a spot for you. We will be collecting quartz crystal & flow-banded rhyolite. It looks great polished.

We briefly discussed October's fieldtrip of collecting Rose Quartz at the Green Horn Mountain Claim. Date of fieldtrip & more information is still to come. Stay tuned.

Evelyn Velie, our CMFS representative will be going to the CMFS conference this November. We discussed how she will be attending & bringing us back some great information.

Our Meeting concluded at 7:49pm

Submitted by Shana Brunes-Ruiz

For Heidi S Webber



SPRC Board Meeting

October 1, 2019

Greenhouse Estates Clubhouse

The meeting was called to order at 7:20pm. In attendance were Bill and Heidi Webber, Julie Tinoco, Ron Lawrence and Shana Brunes-Ruiz.

The minutes were presented, Julie moved to approve as presented, Shana seconded, passed.

The Treasury report was presented, Heidi moved to approve, Julie seconded, passed.

Gilchrist Farms was discussed. Heidi said she has put out a call for help and has had several persons sign up. More are always welcome. Please.

Six persons submitted applications for membership: Mark and Ashton Scott, Gary, Rati and Naomi Strong, and Garrett Holt. All applications were approved. Congratulations new members!

October 12 is the field trip for Rose Quartz. This is a members only trip. We do this every couple of years, so those that can't go this time, have other opportunities.

Julie said the November field trip is to Kramer Corners where we can collect Agate and Opalite.

Julie said that Dianne Wohlleben has donated a gift for all the club members attending the Holiday Party.

Regarding the Holiday Party, the club will donate the meat (turkey and ham) and the plastics and paper goods. The rest will be potluck.

There being no further business at this time, the meeting was adjourned at 8:30.

Respectfully Submitted

Heidi Webber, Secretary, SPRC

Regional Metamorphism

All of the important processes of metamorphism that we are familiar with can be directly related to geological processes caused by plate tectonics.

Regional metamorphism occurs when rocks are buried deep in the crust. This is commonly associated with convergent plate boundaries and the formation of mountain ranges. Because burial to 10 km to 20 km is required, the areas affected tend to be large.

Most regional metamorphism takes place within continental crust. While rocks can be metamorphosed at depth in most areas, the potential for metamorphism is greatest in the roots of mountain ranges where there is a strong likelihood for burial of relatively young sedimentary rock to great depths.

An example would be the Himalayan Range. At this continent-continent convergent boundary, sedimentary rocks have been both thrust up to great heights (nearly 9,000 m above sea level) and also buried to great depths.

At an oceanic spreading ridge, recently formed oceanic crust of gabbro and basalt is slowly moving away from the plate boundary. Water within the crust is forced to rise in the area close to the source of volcanic heat, and this draws more water in from farther out, which eventually creates a convective system where cold seawater is drawn into the crust and then out again onto the sea floor near the ridge.

The passage of this water through the oceanic crust at 200° to 300°C promotes metamorphic reactions that change the original pyroxene in the rock to chlorite and serpentine. Because this metamorphism takes place at temperatures well below the temperature at which the rock originally formed (~1200°C), it is known as retrograde metamorphism.

The rock that forms in this way is known as greenstone if it isn't foliated, or greenschist if it is. Chlorite and serpentine are both "hydrated minerals" meaning that they have water (as OH) in their chemical formulas. When metamorphosed ocean crust is later subducted, the chlorite and serpentine are converted into new non-hydrous minerals (e.g., garnet and pyroxene) and the water that is released migrates into the overlying mantle, where it contributes to flux melting.

At a subduction zone, oceanic crust is forced down into the hot mantle. But because the oceanic crust is now relatively cool, especially along its sea-floor upper surface, it does not heat up quickly, and the subducting rock remains several hundreds of degrees cooler than the surrounding mantle. A special type of metamorphism takes place under these very high-pressure but relatively low-temperature conditions, producing an amphibole mineral known as glaucophane, which is blue in colour, and is a major component of a rock known as blueschist.

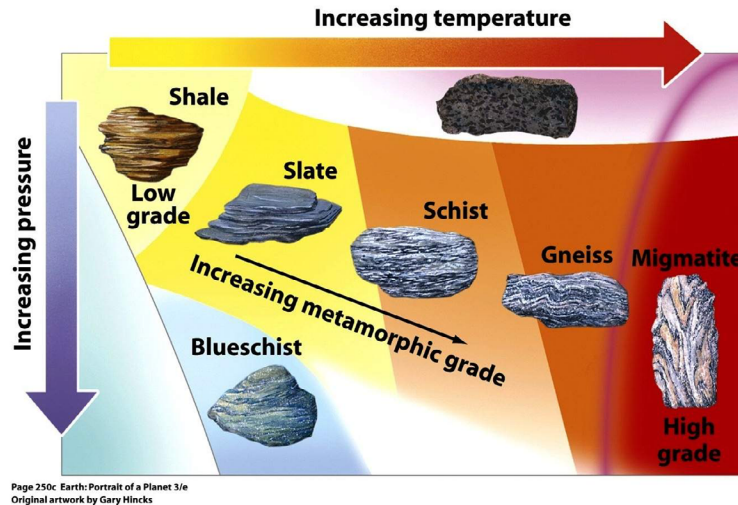
If you've never seen or even heard of blueschist, it's not surprising. What is surprising is that anyone has seen it! Most blueschist forms in subduction zones, continues to be subducted, turns into eclogite at about 35 km depth, and then eventually sinks deep into the mantle — never to be seen again.

Regional metamorphism also takes place within volcanic-arc mountain ranges, and because of the extra heat associated with the volcanism, the geothermal gradient is typically a little steeper in these settings (somewhere between 40° and 50°C/km). As a result higher grades of metamorphism can take place closer to surface than is the case in other areas.

Rather than focusing on metamorphic rock textures (slate, schist, gneiss, etc.), geologists tend to look at specific minerals within the rocks that are indicative of different grades of metamorphism.

Some common minerals in metamorphic rocks are shown in Figure, arranged in order of the temperature ranges within which they tend to be stable. The upper and lower limits of the ranges are intentionally vague because these limits depend on a number of different factors, such as the pressure, the amount of water present, and the overall composition of the rock.

Read more at <http://www.geologyin.com/2017/12/regional-metamorphism.html#FdrSEQ6AOl3IIDP8.99>



Page 250c Earth: Portrait of a Planet 3/e
Original artwork by Gary Hincks

3. Metamorphic Textures

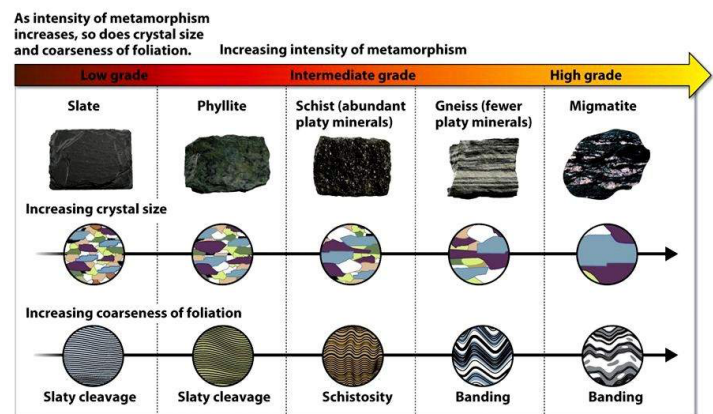


Figure 6.6
Understanding Earth, Sixth Edition
© 2010 W. H. Freeman and Company



Julie

Silver Queen Mine Tour

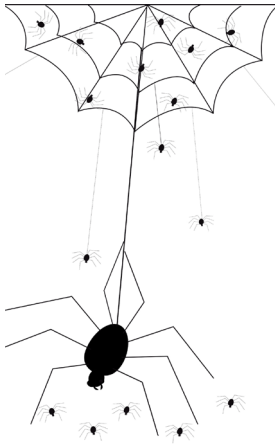
On Thursday, September 26, 2019, the Sierra Pelona Rock Club field trip was held at the Silver Queen Mine in Mojave. Early in the morning our group arrived at the Geology office where we were shown into the conference area for the presentation portion of our tour. Averie Burson gave us a very knowledgeable and comprehensive explanation of the mine and its workings. He discussed how an area is chosen for testing, how samples are taken, and processed at the in-house laboratory. Questions were encouraged throughout.

After the presentation we were given a fascinating "drive around" tour of some of the mining areas. Besides seeing some very large equipment, the view of the colorful mountains and the site of the windmill farm next door was something to behold. The finale was collecting flow banded Rhyolite, including several other beautiful specimens of rocks and minerals.

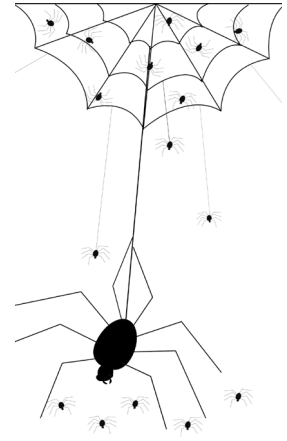
Many wonderful comments were made regarding this field trip so I think I can speak for everyone. A great day of learning and collecting was had by all. Thank you to Averie, Jake, and the Golden Queen Mining Company for allowing our club to visit the Silver Queen Mine.



Ron, Jake and Averie



Tina, Shana, Ron R. John, and Monroe, Jake (mine guide), Julie, Evelyn, Ed, Dianne and Betsy



Abandoned Mine



Flow-banded Rhyolite



Ron, Shana, Tina, Dianne, Betsy and Jake (mine guide)