

The Sierra Pelonagram



December 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.

Don't forget:
Dues are Due
Never fear, I will
remind you—
As often as it takes!
Heidi



Sierra Pelona Rock Club
Greenbriar Estates Clubhouse
General Meeting
November 19, 2019

The meeting was called to order at 7:30pm. Bill Webber spoke of the upcoming elections and encouraged anyone interested in holding an office to please let us know. Elections will be held at the Holiday Party on December 14. Dues are also due as of January 1, 2020 and the party is a great time to pay them. They are considered late as of the business meeting on February 4, 2020. Also, there will be a rock and lapidary related auction. If you have anything to donate, bring it to the dinner. There will also be the usual silent auction.

It was announced that the Holiday Party has been changed to be at the clubhouse at Greenbriar as it has for many years. Thanks to Bruce and Evelyn Velie for making this happen.

Evelyn spoke of the CFMS conference in Visalia. She gave a list of potential field trips to Julie as new places to collect are always welcome. She said the summer CFMS show will be held June 26-28 in Lodi. She has discount tickets if anyone is interested in going.

The meeting was adjourned at 8pm for Tina's program.

Respectfully Submitted
Heidi S Webber, SPRC Secretary

Birthdays

December

Mark Scott December 15

January

David Burkhead January 17
Karen Linder January 17
Larry Holt January 29
Larry Patrich January 4
Martin Schreiner January 9
Robin Shane January 15
Bruce Velie January 3
Austin Williams January 5



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--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 –Open
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



Message from the President

Well, another year is almost done. The years just seem to pass by faster and faster. Heidi and I have been in the club almost 11 years now; it seems impossible. This is what a good club does for people: you meet like-minded members who rapidly become good or even best friends. And the time flies by--learning, enrichment and friendship. What could be better?

Enough of that. It is also the time of year when we can look forward to great collecting field trips, club parties, workshops and meetings in 2020. Your club can't do without your involvement, so do yourself a great big favor and join us in the SPRC clubs' activities. You won't regret it!

The SPRC Holiday Dinner began with a delicious variety of potluck dishes made to compliment the club contribution of turkey and ham, baked by Heidi Webber. Thanks to all who participated, it was all delicious!

I would like to thank Dianne Wohlleben for her very generous donation of beautiful glass roses for every attendant.

I would also like to thank Ron and Karen Rackliffe for their donation of gorgeous hand-made birch and Tree-of-Life wire-wrapped centerpieces. That was a lot of work. Ron also was in charge of the sign-up sheet for the potluck and all the work that goes into a successful party. Thanks again!

As far as elections go, the current board—me, Julie, Shana, Evelyn and Heidi—were re-elected for the 2020 year. We have some work to do going forward. A new calendar will be published as soon as field trips and workshop dates are decided.

Have a wonderful Holiday and we will see you in January!

Bill Webber,
President, SPRC

Sierra Pelona Rock Club
General Meeting
Greenbriar Estates Clubhouse
Holiday Dinner and Elections
December 14, 2019

The SPRC Holiday Dinner began with a delicious variety of potluck dishes made to compliment the club contribution of turkey and ham, baked by Heidi Webber. Thanks to all who participated, it was all delicious!

The actual meeting was called to order at 1:15pm. First on the agenda was elections. The current board was re-elected by a unanimous vote by show of hands. The committee members present also agreed to stay on for the next year, and those not present will be contacted to see if they wish to stay in their current capacity. The board as it stands is: Bill Webber--President, Julie Tinoco--Vice-president, Shana Brunes-Ruiz—Treasurer, Evelyn Velie—CFMS Representative and Heidi Webber, Secretary.

We would like to thank Dianne Wohlleben for her very generous donation of beautiful glass roses for every attendant.

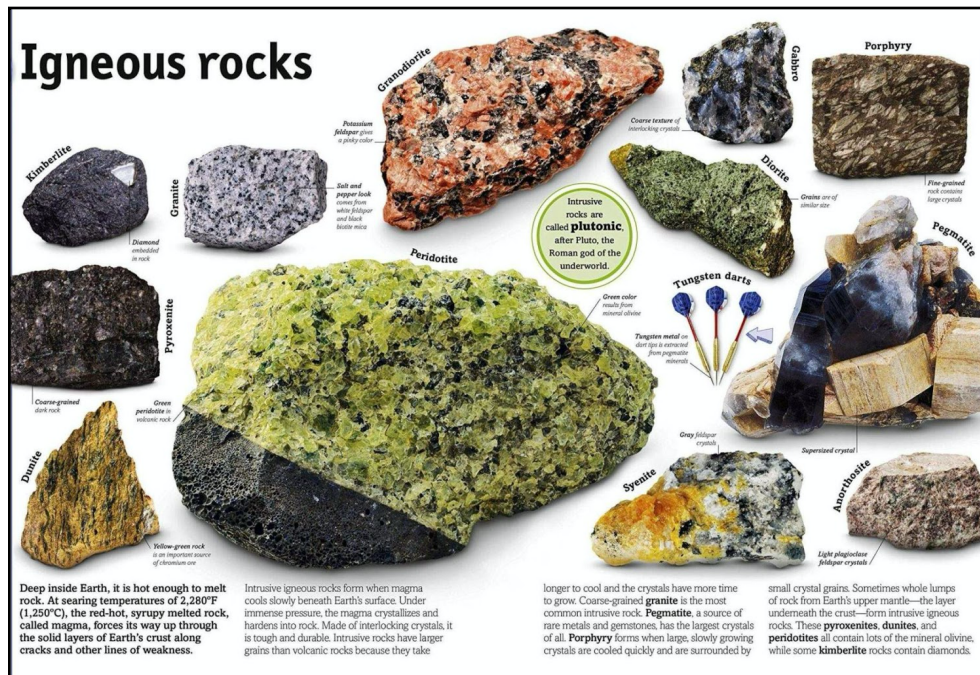
We would also like to thank Ron and Karen Rackliffe for their donation of gorgeous hand-made birch and Tree of Life wire-wrapped centerpieces. That was a lot of work. Thanks again!

Ron Lawrence announced that Dan and Vivian Watts of the Antelope Valley Rock Club are moving to Oregon and they are selling their huge collection of collected rocks. They live in California City and most are selling for \$1 per pound, some for \$2 per pound. This is effective until December 23. Contact Ron if you are interested.

Ron also reminded us that the Quartzite rock show is the entire month of January with the PowWow from January 15-19.

The meeting was adjourned at 1:45 for the auction of lapidary and rock-related items and the silent auction.

Respectfully Submitted
Heidi S Webber, SPRC Secretary



What Gems are Found in Igneous Rock?

By the cooling down of magma, atoms are linked into crystalline patterns and subsequently different minerals are formed. When the formation takes place in the depths of the earth's crust (approx. 33km deep) quite large rocks may be formed (for instance, granites).

Igneous rocks are formed and created by magmatic processes in the earth. To form very large crystals of rare minerals, exceptional conditions are needed. For instance, a rock called pegmatite is formed by the crystallization of magma enriched with water in the veins of other rocks, and may contain beryl, tourmaline and topaz.

Igneous rocks are divided into two types-- volcanic rock (extrusive) and plutonic rock (intrusive) -- depending on where the magma cools.

Volcanic or Extrusive Rock

This is rock that is formed on the surface of the earth. In contact with air or seawater, molten rock cools rapidly and either quenches to a glass (like obsidian) or forms small crystals (basalt). Volcanic rocks are usually finely grained or glassy in structure.

Basalt is an extrusive rock, finely grained due to its rapid cooling. It largely consists of tiny feldspar and pyroxene crystals (like diopside and enstatite). Some basalts contain gemstones like corundum, zircon and garnets.

Another volcanic rock is called kimberlite. Kimberlite pipes are the most major source of diamond.

Occasionally, varieties of volcanic glass, obsidian, are cut and fashioned as gemstones. Obsidian is an amorphous mineraloid with the hardness of approximately 5.5. Varieties of obsidian include:

- Snowflake obsidian (with inclusions of the mineral cristobalite)
- Rainbow obsidian
- Red mahogany obsidian
- Silver sheen obsidian
- Midnight lace obsidian
- Pumpkin obsidian
- "Apache tears" obsidian

Plutonic or Intrusive Rock

When molten rock solidifies within preexisting rock, it cools slowly, forming plutonic rocks with larger crystals. They tend to be coarse grained.

Granite is a coarse-grained intrusive rock which contains the minerals quartz and feldspar, and usually carries mica or hornblende. In some circumstances, granite undergoes "fractional crystallization", a process where slow cooling creates crystals of different minerals as they form at different temperatures.

Minerals of the pegmatite group are among the last to be formed, often occurring as veins penetrating their surroundings.

Associated minerals that find their origin in igneous rocks:



- Beryl
- Chrysoberyl
- Corundum
- Diamond
- Garnet
- Feldspar
- Peridot
- Quartz
- Spinel
- Topaz
- Tourmaline
- Zircon

Stages of the Igneous or Magmatic Cycle

The stages of the igneous or magmatic cycle are as follows:

1-Stages of the igneous or magmatic cycle

- Chromite
- Magnetite
- Titanium magnetite

2. Liquid magmatic phase (main crystallization) 1500-600 degrees C:

- Spinel
- Zircon
- Apatite
- Peridot
- Diamond

3. Pegmatite phase (rest crystallization) 700-400 degrees C:

The residual part of the magma, which is rich in fluxes, is known as the pegmatite stage. The melt becomes a watery solution as solidification proceeds. Because of this fluidity, the liquids can penetrate fissures and cracks in the surrounding rocks. Under the concentrated pressure and temperatures, individual crystals form that can measure several centimeters, and occasionally several meters! The prismatic crystals grow perpendicular to the walls of the vein. Pegmatite veins are some of the best examples of gemstone formation.

- Tourmaline
- Beryl
- Quartz
- Feldspar
- Zircon
- Apatite
- Brazilianite
- Graphite
- Muscovite
- Lepidolite

4. Pneumatolytic phase 500-300 degrees C:

Minerals formed in this phase form at lower temperatures and rising pressure. Superheated volatile components are involved. The most prominent of these components is water vapor, boron and fluorine gases. Under the influence of these vapors, other minerals are often formed in the contact zone of limestone.

- Topaz
- Euclase
- Vesuvianite
- Fluorite
- Cassiterite
- Sheelite
- Wolframite

5. Hydrothermal phase 400-50 degrees C:

This is a process associated with igneous activity that involves heated or super-heated water. Water at very high temperature and pressure is an exceedingly active substance, capable of breaking down silicates and dissolving many substances normally thought to be insoluble. This is the last stage of minerals that can be considered to be formed directly from magma.

- Gold
- Silver
- Emerald (Colombian)
- Beryl

- Quartz
- Barite
- Pyrite
- Dolomite
- Calcite

Zircon to Calculate the Age of the Earth

Zircon forms in granites deep in the earth's crust (plutonic rock). Through movement of tectonic plates, this granite is brought to the surface and starts mountain building. Through erosion, the granite (and the contained zircon) builds sediments which will eventually be buried deep enough to transform into metamorphic rocks.

Zircon has two important properties:

1. Relative high hardness
2. Resistance to chemical attacks

Due to its hardness of 7.5 on the scale of Mohs, the zircons usually survive the sedimentary process intact. Because of its resistance to chemical attacks, zircon will survive the contact metamorphism process which is trying to attack it with heat and pressure. The latter is important as the liquid mass surrounding the zircon will cause a new rim to be formed around the old zircon, just like the formation of tree rings. This first cycle usually will take hundreds of million years.

Photos from The Rock and Gem Book: And Other Treasures of the Natural World

Read more at <http://www.geologyin.com/2018/03/what-gems-are-found-in-igneous-rock.html#CFRvUPZaYI53GVqj.99>

Reference: *The Amazing Geologist*



SPRC Board Meeting

December 3, 2019

Greenbriar Estates Clubhouse

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

The first order of business was to discuss the upcoming holiday party which was moved back to the original location of the Greenbriar Estates Clubhouse from the Sierra Inn clubhouse. We agreed that we would help Evelyn and Bruce Velie set up tables for the Greenbriar party occurring after ours on December 14.

Next was a brief discussion regarding the January Quartzite pow wow and the possibility of using that as the January field trip. Ron left at that time because the rest of us were all sick.

Those still in attendance discussed the other members' interest in becoming officers or other elected positions for 2020. No one had made known any interest in doing so to any of us.

Bill asked if we would be interested in keeping our offices for 2020 if no one else volunteered for a position. We agreed we would remain in office.

Julie made a motion to adjourn at 7:50pm and Bill seconded.

Respectfully Submitted

Julie Tinoco, Vice-president, SPRC