

Some Jokes just Fluorite  
Over My Head!



WHY WASN'T THE  
GEOLOGIST HUNGRY?

THEY'D  
LOST  
THEIR  
APATITE.



## NEXT MEETING:

FEBRUARY 20, 7 PM

DITTUS HALL, REDWOOD  
TERRACE

710 W. 13<sup>TH</sup> AVE. ESCONDIDO

Lots of new stuff happening,  
check it out!

HAPPY BIRTHDAY TO  
FEBRUARY BIRTHDAY  
MEMBERS!!!

## REMINDER: CLUB DUES OWED!

Please see Lori Goodman,

Membership Chair

**NEW FOR 2019 :**  
**MEMBER GALLERY**  
**– SUBMIT PHOTOS**  
**OF ART WORK OR**  
**PROJECTS TO IAN**

SOON TO BE ADDED:

CLASSIFIED ADS

FOR MEMBERS WHO  
WISH TO SELL ITEMS  
OF INTEREST USING  
THE WEB SITE!!

# Palomar Gem and Mineral Club

VOLUME 60 - ISSUE #2  
February 2019

## February Meeting:

Feb 20<sup>th</sup>, 7PM

Dittus Hall, Redwood Terrace

710 West 13th Ave, Escondido

### BOARD OFFICERS ELECTED

President	Jef Wright
Vice President	<b>John Raabe</b>
Secretary	<b>Fred Floyd</b>
Treasurer	Toni Floyd

### BOARD OF DIRECTORS (APPOINTED)

CFMS Chairperson:	Toni Floyd
Field Trips:	Melissa Takagi
Parliamentarian:	Chris Toft
Shop Coordinator:	Alan Mazzola
Program Chair	<b>vacant</b>
Show Chair	Michele Shepard
Newsletter Editor	<b>Carol Hiestand</b>
Website:	Ian Burney
Membership Chair	Lori Goodman

### STANDING COMMITTEES (APPOINTED)

Facebook Page Coord	Jeff Fox
Ways & Means	Dawn Wright
Historian	Barbara Bury
Hospitality & Good Cheer	Judy Jessup
Meeting Displays	Barbara Bury
Picnic Coordinator	Moni Waiblinger
Refreshments	Carol Hiestand
Redwood Rep	Barbara Bury
Librarian	Chris Toft
Calendar	Justin Engelmeyer

## Contents:

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Gene's story p 6-8

Amethyst p 9-11



## Peruvian Adventures!

Michelle and Van Lynch



We all drooled over the photos Van and Michelle posted in Facebook while on their trip to Peru. Now we get to see the full slideshow and hear the great stories! Be sure to bring your Peruvian pink and blue opal and chrysocolla!

## Quartzite and Tucson Report

Many of our members endured the rain and crowds to participate in Quartzite and Tucson Shows. Bring your bootie and stories to share (Barbara will have an extra table for us)!

## PALOMAR GEM AND MINERAL CLUB

The Palomar Gem and Mineral Club, a non-profit corporation open to all adults and young people, was organized to promote the study of rocks, minerals, gems, fossils and related subjects, such purpose to be developed through regular meetings with educational programs, field trips for the collection of geological specimens, and classes for teaching lapidary arts. The Palomar Gem and Mineral Club shares its knowledge of the earth sciences by sponsoring Gem and Mineral shows featuring exhibits, displays and demonstrations. The Club was founded March 20, 1954.

PGMC IS AFFILIATED WITH



## REMINDERS:

1. PAY CLUB DUES, UPDATE EMAIL. Please add your birth date and month (optional)
2. VOLUNTEER; Offer your skills and expertise to make this club even better!
3. ANYONE SETTING UP CLASSES, EVENTS, PLEASE CONTACT: JUSTIN ENGELMEYER (CALENDAR CHAIR): [ENJU0901@GMAIL.COM](mailto:ENJU0901@GMAIL.COM)
4. Get involved!!! This club is as great as us!

## \*\*\*\*UPCOMING CLASSES\*\*\*\*

Lapidary & Silversmith Workshop  
2120 W. Mission, Suite S., Escondido

### Cabochon/Lapidary Class & Open Workshops

**Tuesday** 6:30 – 9:30 pm

**Wednesday** 11:00 am – 2:00 pm

**Thursday** 2:00-5:00pm

Learn to cut and polish a rock into a beautiful stone suitable for wire wrapping or fabricating in

metal. A fantastic assortment of material is available for purchase on site.

The workshop is also open for general use. No prior registration needed.

**Thursday** 6:00 pm – 9:00 pm **METAL SMITHING only - open for to those students who have had metal smithing instruction or experience and/or have instructor approval.** *Those students who have attended an introductory class may continue to work on improving their skills in this weekly workshop.* An experienced metalsmith will be available for consultation.

**Cost:** A \$7 shop fee will be collected for regular workshop. Club membership required.



### Introduction to Faceting

An informative introduction and hands-on experience in the world of gem cutting. Learn how to

create a gem out of a piece of rough, during a weekend class. No machine required. Return

students welcome with or without their own machine. Each class can accommodate 3 new

students without machines and 3 returning students with their own machines.

**Instructor:** Bob Johnson

**Location:** Club Shop

**Dates & times:** Sat. February 16, and Sunday February 17, 2018 – 9am -5pm

**Cost:** \$80 New students. Club membership required. \$70 return students.

Contact Bob Johnson for more info or to register - 760-809-0152 or email Bob at [N78532@yahoo.com](mailto:N78532@yahoo.com)

### Faceting – Continuation Class

This is a class for continuing students who have completed the Introductory Class and is held once per month, from 9 to 5 on the Saturday following the general meeting, (which is always on the third Wed.)

**Instructor:** Bob Johnson

**Location:** Club Shop

**Cost:** \$35.

*February workshop – February 23, 2019, 9-5*

Contact Bob Johnson for approval and to reserve a spot - 760-809-0152 or email Bob [N78532@yahoo.com](mailto:N78532@yahoo.com)

## Introduction to Silversmithing Class



Ring by Mike Mettelka

This is a 10-hour introductory silversmith class. The students will learn to develop their designs, use a jeweler's saw to cut out a pattern, solder a bezel to a backing and add a bale or a ring shank, creating a wearable piece of jewelry. Intermediate students can work on a project of their choosing with instructor approval. At the completion of this introduction the student can continue learning in the Thursday night workshop.

**Instructors:** Diane Hall & Annie Heffner

**Dates & times:** June 29 & 30, 2019, 10-4

**Cost:** \$60 (club membership required - \$25 fee for single membership)

**Materials additional – (Approx. \$30) and please bring a cabochon to set in silver or let us know if you need one.**

\*\*Call Diane Hall at (760) 741-0433 (leave message for call back) or email [dianehall213@gmail.com](mailto:dianehall213@gmail.com) for more info or to register.

## Forged Bracelet Class



In this class, we will forge a simple bangle bracelet with a soldered clasp from sterling silver wire.

**Instructors:** Diane Hall and Annie Heffner

**Date and time:** March 10, 2019, 10am – 4pm

**Location:** Club shop

**Cost:** \$30, plus materials fee

\*\*Call Diane Hall at (760) 741-0433 (leave message for call back) or email [dianehall213@gmail.com](mailto:dianehall213@gmail.com) for more info or to register.

## GUNFIGHT AT THE WALL STREET MINE AND A FIELD TRIP WITH THE HELL'S ANGELS

In 1969 I'm wasting time mapping geology on a worthless geothermal property my employer leased along the ridge top east of the Napa Valley. My boss J.Q. Anderson tells me to evaluate the nearby Wall Street Mine. I like J.Q. and he treats me very well, but J.Q. is a semi-retired geologist and vice president. The president of the company once said, "**J.Q. made leisure an art form**". J.Q. is usually on vacation, which keeps him out of my hair and therefore the ideal boss. On those rare occasions when he comes to the office and feels the urge to work, J.Q.'s main work product is to come up with "small tasks" to occupy my spare time. All my bosses were always delusional about and obsessed with occupying my spare time.

The Vietnam War is consuming a lot of mercury, which is in short supply. Mercury is sold in 76-pound flasks, which then sold for about \$900 per flask. Adjusted for inflation, today that would be about \$6,400, which is about five to six times what a flask of mercury sells for at present.

The Wall Street mercury mine is located in a steep canyon where I'm to meet the mine's owner. The road into the mine is too steep and rough for my worn out company car, the Blue Bomb. The Blue Bomb is a wide low clearance 1960 Mercury with 70,000 hard miles. By the time the Blue Bomb completely dies at 125,000 miles, she will have broken down and had to be towed a grand total of 30 times. I'm on a first name basis with the employees of the Owl Garage tow truck company. Except for our home phone, the Owl Garage has the only telephone number I know from memory. I even have my own coffee cup at the Owl Garage, where I'm treated as an old friend and their best customer. Geothermal Resources International (GRI) has 27 employees and I'm the only one working in the field. Every two years GRI buys a fleet of new BMW and Cadillac cars. The only employee, who does not get a new car, is the one person, who actually needs one. In my experience, this procedure is not unique to

this company. In their opinion, I should be grateful I'm not riding a mule and sleeping in a manger.

The Blue Bomb necessitates parking on the paved county road and walking down to the mine. This is not unusual; I spend a lot of time walking to places that are easy to drive to in a Jeep or pickup truck. Upon arriving at the mine, I'm standing by a bulldozer talking with the mine owner. Suddenly, a gunshot rings out and a bullet ricochets off the bulldozer. The mine owner swears as more bullets ricochet and gunshots ring out. We both run behind the bulldozer and crouch down. The mine owner casually mentions he has a dispute with the man holding mining claims at the top of the hill and they often exchange shots. Apparently, both these idiots claim ownership of the Wall Street Mine. Bending low, the mine owner runs to his truck to retrieve a rifle. Now a gunfight erupts with both men exchanging shots, while I'm hiding behind the bulldozer. As these two idiots shoot at each other, I notice the bulldozer is parked on the rim of a narrow deep ravine with a stream. Crawling down into the stream, I'm out of the direct line of fire. I walk a safe distance down stream and then climb back up to the county road to the welcome sight of the Blue Bomb.

With the rest of the day to kill, I decide to visit the nearby Red Elephant Mine. The Red Elephant is a long ago abandoned mercury mine with the underground workings flooded. The surface geology looks interesting as the mine is located in a major fault zone. The mine dump, which should be waste rock, is actually full of ore both as red cinnabar and native mercury. This interesting property could have a lot of potential.

A telephone call to J.Q. reports the Wall Street Mine is worthless. Actually, I never got to see the mine, but if he's told the evaluation was cut short by a gunfight, then I would be sent back for another look. Instead, I recommend the company investigate the Red Elephant Mine, but J.Q. is not interested. The name Wall Street Mine sounds romantic and potentially profitable. It will be easy for the company to sell stock in such a venture. On the other hand, the name Red Elephant is too close to White Elephant, which is not a good name for enticing investors. J.Q. decides I should fly down to the

home office in Bakersfield where we can discuss this further. Although my company car is a junk pile, I'm allowed to charter airplanes...go figure? I charter a plane to Bakersfield, but we never have a meeting to discuss anything. Instead the expensive airplane charter results in my spending an easy day sitting in the petroleum club eating abalone and prime rib washed down with expensive wine. Lucky for me, J.Q. is a gourmet. As we casually eat what would eventually turn out to be one of many three-hour lunches, I'm listening to J.Q. and the other old geologists' tales of "the good old days". Now you're reading my old geologist tales. Except for growing old, some things never change.

In case you think getting shot at was a unique experience, it was not. Hunters have shot at me three other times. Two were deer hunters, but the third was grouse hunting and I must have been the biggest grouse he ever saw.

The next assignment is to visit the Knoxville mercury district. I'm very impressed by the Knoxville area's geology and potential as a profitable mine. The area not only contains mercury, but also gold. If a geologist can break open rocks and see gold, he better give the area a close look. Enthusiastically, I recommend the company start a Knoxville project. Instead, I'm sent off on another wild goose chase. I worked for that company for five years and never once did they follow any of my recommendations. Several were later very profitable for other companies. Years later, long after I had moved on, the company went bankrupt. The last thing the officers and directors did was to vote themselves fat bonuses to distribute the remaining cash in the treasury.

A decade later in the late 1970's, Homestake Mining Company became interested in the gold potential of the Knoxville district. Prior to the McLaughlin Mine's opening in 1985, Homestake spent \$285,000,000 on mine evaluation, permitting, planning, and construction. The McLaughlin mine operated from 1985 to 2002 and produced 3.4 million ounces of gold worth approximately one billion dollars at an average gold price of \$300/ounce. Homestake's McLaughlin Gold Mine was the largest and most profitable gold mine

opened in California in the 20<sup>th</sup> Century. Today the area has been reclaimed and protected as the Donald and Sylvia McLaughlin Natural Reserve.

J.Q. goes on another vacation and with no new wild goose chases to occupy my time, I'm back to wasting time mapping along the ridge above the Napa Valley. Prior to the California wine boom, the area was then just brush and trees. One Sunday, the mapping takes me into a meadow occupied by a gang of Hell's Angels motorcycle ruffians and their girl friends. Periodically, the Hell's Angels ride up from San Francisco to this remote location for a weekend drug, beer, and love fest. Initially, they are angry and suspect that I'm a government employee. Once they learn what I'm doing, they become interested and, out of boredom, several of them follow me around asking endless questions. At the end of the day, we drink a few of their beers and I'm judged a friend. The next Saturday we again spend a day together in the field with more endless questions. These guys should have joined a rock club. On the second Sunday, Gene is leading another Hell's Angel field trip, but this is slowing the work down. I point out a one-foot thick seam of apple green opal that extends across the area. They are now happy to be opal miners and I'm back to solo work. I leave my biker buddies behind as the work moves on to another locality. The geology profession brings you in contact with strange people, both in the field and in the business world. I never did get my promised Hell's Angels leather jacket.

At that time Betty and I had our mobile home parked in the forest at the base of Mt. St. Helena at the northern end of the Napa Valley. In the 1960's the area was only sparsely populated and we were the only people living there. Behind our trailer there was a clear stream flowing off the mountain. On hot days Betty would take our 10-month-old daughter Holly to play in the stream. One evening, our little family is sitting in the cool water as Holly splashes about. Suddenly she pulls her hand out

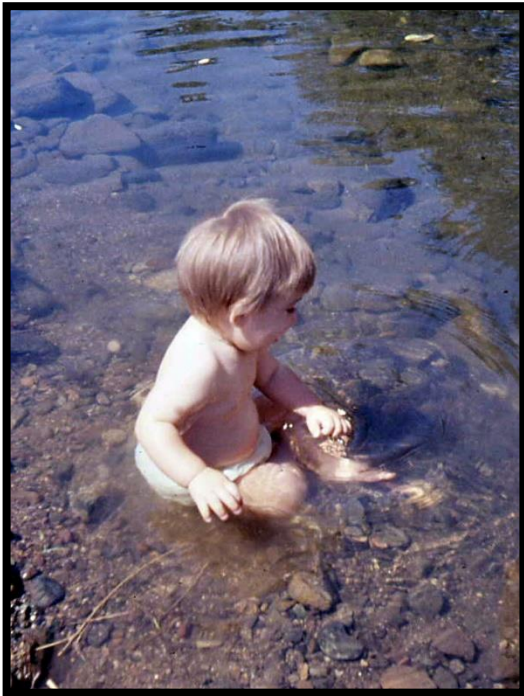
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# Palomar Gem and Mineral Club

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of the water and she is grasping a wiggling trout. She caught her first fish barehanded before the age of one and I knew our daughter was destined to be a fisherwoman. Those months were a wonderful time for our family living alone with almost no contact with other people.



Daddy this sure beats the bathtub  
and I can see frogs and fishes





## ROMANCE, HISTORY & LORE

Once associated with the tears of Bacchus, god of wine, amethyst has been prized for thousands of years. Since medieval times, Christian scholars have regarded this precious purple crystal as “the bishop’s stone” for its power to provide clarity and sobriety. Buddhist monks continue to fashion fine prayer beads from amethyst, as the stone was precious to Buddha.

## ORIGINS

Amethyst is the rarest member of the quartz family, and deposits occur throughout the world.

One of the most significant producers of amethyst is Brazil, where several states possess large deposits. Neighboring Uruguay produces less amethyst, but many consider its clarity and rich, dark color to be superior to Brazilian amethyst.



Across the Atlantic, Zambia is also among the large global producers. Zambian amethyst is often small, but its dark color and clarity make it some of the finest in the world.

Amethyst occurs throughout the United States – Arizona, Texas, Pennsylvania, North Carolina, Maine and Colorado. The largest amethyst mine in North America is located in Thunder Bay, Ontario, Canada.



## ENHANCEMENT

The great majority of amethyst available today has been heat treated to deepen its purple hues. This enhancement is permanent and will not fade over time.

Although natural amethyst is still readily available, it is also created synthetically. Largely as a bi-product of quartz synthesis for the electronic business, man-made amethyst is circulated in the marketplace. While synthetic amethyst can fool the untrained eye, a competent gemologist can easily discern man-made from natural.



Amethyst is always purple, but its color ranges from delicate, pale lilac to deep, expressive violet. While deeper purple amethyst is the most valuable, lighter gemstones may offer more affordable price points. Adding to amethyst's allure is its sensitivity to lighting. Under evening or incandescent light, a stone will tend toward a deeper, darker purple. In daylight or fluorescent light, the same stone will adopt cooler grayish-blue tones.

Amethyst is often set in classic styles, and abundant enough that perfectly matched suites including earrings, pendants, rings, and bracelets are widely available. Since it can occur in large, near flawless crystals, gems of all sizes are possible. The finest pieces are often fashioned into exotic fantasy cuts, becoming the centerpiece of custom designs.



## SELECTING A STONE

Beyond being a beautiful and affordable addition to any jewelry collection, amethyst is well-suited for everyday wear. With a hardness of 7, amethyst is not prone to easy cracking or chipping, and can be worn with peace-of-mind.

avoid the buildup of cosmetics and dirt, which can affect the stone's brilliance.



AMETHYST PROPERTIES AT A GLANCE	
Family	Quartz
Chemistry	SiO <sub>2</sub>
Refractive Index	1.544 - 1.553
Birefringence	.009
Specific Gravity	2.65
Hardness	7 (Moh's Scale)
Color Range	Purple, violet, pale red-violet

Thanks to: [agta.org/education/gemstones/amethyst/](http://agta.org/education/gemstones/amethyst/)

Heavily included amethyst with good color is often cut into cabochons or beads. While a cabochon does not produce a particularly brilliant affect, it is an effective way to showcase the stone's color. Because of its abundance, lower quality amethyst is a popular gemstone for carving and beads, and are particularly popular in the metaphysical world.



## CARE

Amethyst is very easy to care for, and typically demands little attention. To clean amethyst jewelry at home, let the piece soak in a solution of warm water and a gentle dish detergent then use a soft brush to clean the stone and around the setting. Amethyst should be cleaned often to