



# DIABLO DIGGINS

Monthly Newsletter of the Contra Costa Mineral & Gem Society

**"We Dig Rocks"  
Since 1950**

July VOL. 70 NO 7

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## President's Message

It is July already! Everyone is thinking about vacations. If you're going out rockhounding don't forget to bring back some for the club; for our auction in October, and the silent auction in November. Speaking of November this is a good time to start thinking about how you will participate in our show. For us to be a success, we need every member to spend at least a few hours helping out. There is plenty to do that you don't need experience or a lot of strength just a willingness to work.

While we are out enjoying this summer, don't forget that even though many Covid restrictions have been lifted the new variation is still out there and very infectious. Even people who are fully vaccinated and boosted are still catching it. While it is a lot less life-threatening than some of the earlier versions, it is still a nasty bug. There is medication available if you catch it early in the progress of the infection; but the medication has side effects too and is not very pleasant. Keep wearing your N 95 masks in crowds and practice your social distancing.

Rick Kennedy, co-owner of the Quartz Scepter mine at Hallelujah Junction and a big booster of Benitoite, will be speaking to us at our July meeting in our new location in Clayton-. See you there!

- OPAL -

*Kelly Plumb*



## Up Coming Shows

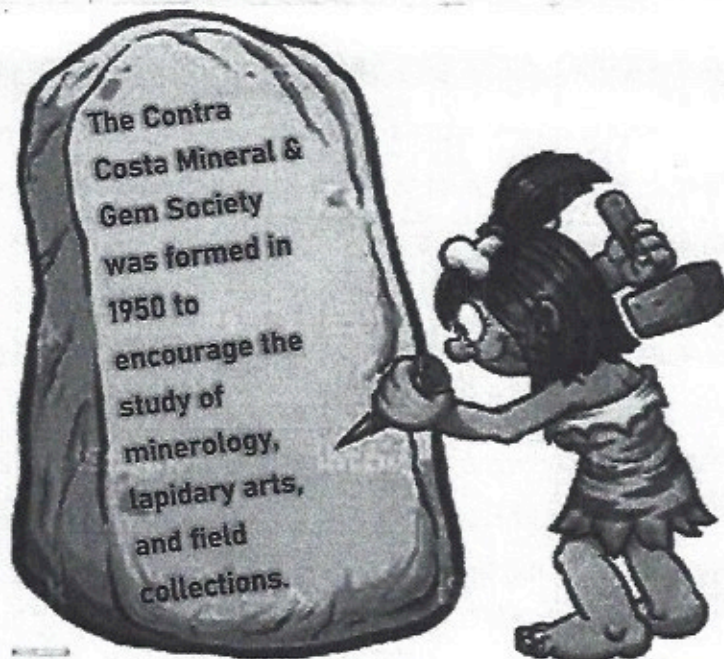
July 8-10

International Gem and Mineral Show San Mateo

International Gem & Jewelry Show San Mateo (July)

## Member Spotlight

Due to conflicting schedules this month we do not have a member spotlight. We are trying but we can use member input on this subject...please if you have any stories about the club, or want any stories published; write them down and send them to me @ [cherylmorgan09@yahoo.com](mailto:cherylmorgan09@yahoo.com). . I will edit for correct grammar and publish. Become a famous author TODAY!



## Silver Pick Field Trip in August

Have your August field trip with Dick and Betty Pankey. You don't need a rock hammer, shovel, gads, pick or any other tools, just bring your rock bag and your silver coins (aka CASH ) and come collect in our back yard. After over 30 years of field trips and collecting we are sharing our adventures and memories. We have traveled all around the USA and we collected everywhere we visited. We have more rocks and specimens than we can use and we want to share them with you. We did the digging, hauling, sorting and cleaning so that all you have to do is choose and pay.

We will host this Silver Pick Field Trip on Friday, Saturday, Sunday (each weekend), Aug. 5<sup>th</sup> to 14<sup>th</sup>; dickpankey@juno.com 8:00 AM to 4:00PM and Monday thru Thursday by appointment at our home in Pittsburg, CA. Directions: 4310 Kingsly Dr., Pittsburg, CA 94565. In Pittsburg take Buchanan Rd. to Suzanne (stoplight) turn south and follow signs with orange paper plates. Go south about 1/2 mile and turn right on to Kingsly Dr. For more information contact dickpankey@juno.com or 925-439-7509

We will be selling rough rocks by the crate, by the flat and by the piece; slabs by the piece and by the flat; minerals and specimens by the flat and by the piece; garden rocks by the piece. We are now selling our "inside and other special" rocks that hadn't been for sale before.

In addition to rocks and minerals there are: equipment, tools, supplies, grit & polish, books, findings, books and magazines, T-Shirts, stained glass and much, much more.

Bring your pick-up truck and your Silver Pick (your money) and join us in August for two weekends of Rockhound fun. For more information contact dickpankey@juno.com or

925-439-7509.



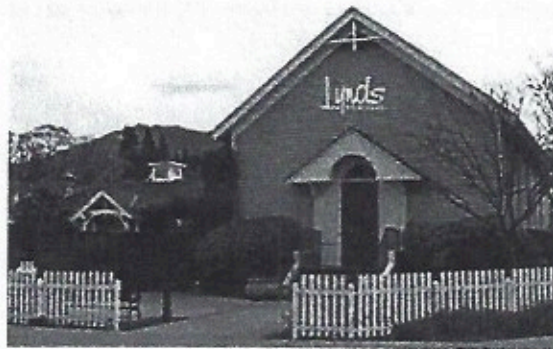
See you in August,

*Dick and Betty Pankey*

## New Meeting Location

Our July 11 meeting will be in the Endeavor Hall, 6008 Center Street, Clayton. Doors will open at 6:30. For those who do not know Clayton is one of California's earliest communities. Since its construction as a Methodist church in 1863, Endeavor Hall has been center for the Clayton community for 140 years. Church services, potlucks, plays, dances, club meetings, classes, talent shows and family reunions are just a few examples of activities that have filled the hall throughout its history. Speaking from personal experience, if you grew up in Clayton, Endeavor Hall holds a large and fond place in your memories. It is also a convenient, meeting place for our meetings in a city that is far more welcoming and for a cost that is far more affordable. Clayton is inviting our society to join the City, to be part of their community, and their events. I strongly urge us to join.

For more on the history of Clayton see <https://pioneerpublishers.com/clayton-lovingly-restored-old-endeavor-hall-into-town-showpiece/>



## Benitoite, California's Blue Diamond

On October 1, 1985, benitoite (pronounced beh-nee-tow-ite) was designated as the official state gem by the California legislature. Benitoite, a barium titanium silicate, can occur in rich blue crystals that are as striking and flawless as the finest sapphires. Gem quality benitoite is found only in a small area of San Benito County, California. Benitoite has never been found in quantity or as crystals much larger than 5cm across. The scarcity of this beautiful gem makes it primarily a collector's item. However, a minor amount of high quality benitoite is used to help align and adjust electron microprobe beams.

Benitoite was discovered in 1906 by J.M. Couch at the now well-known Benitoite Gem Mine locality in San Benito County. The mineral was thought to be sapphire, but jewelers determined that it was not. In 1907, George D. Louderback, a mineralogy professor at the University of California at Berkeley identified it as a new mineral species, and named it benitoite after the river, county, and nearby mountain range where it was found.

Benitoite crystals occur in a wide range of colors including heliotrope, pink, white, several shades of blue, and colorless. A variety of colors and hues in a crystal is common. Color is often zoned and is most intense toward the edges of the flattened triangular crystals and pale, white, or colorless in the center. The large majority of crystals are translucent and have pale blue or white centers with deep blue outer rims. A small amount of iron (0.05%) detected by emission spectroscopy may occur in deep blue-purple crystals. The violet-blue in some crystals is thought to be caused by titanium sesquioxide.

Mineralogists group all crystals into six systems that are further divided into 32 classes. These systems and classes are based on the symmetry or lack of symmetry in the arrangement of crystal faces. The hexagonal system, to which benitoite belongs, theoretically has 12 classes. Although 10 of the 12 classes were known to occur in nature, two of them remained to be found. The investigators discovered that benitoite belonged to one of these missing classes. It is the only naturally occurring representative of the ditrigonal-dipyramidal class. The most common crystal habit of benitoite is distinctively pyramidal. It also occurs in a variety of other crystal habits.

Benitoite fluoresces a bright deep sky blue under short wave ultraviolet light and x-rays. It is one of the most beautiful fluorescent minerals. At the tips of many benitoite crystals, the blue daylight color of the crystal sometimes gives way to white. These white sections frequently fluoresce pink-red, sometimes fairly brightly, under long wave ultraviolet light. Many benitoite crystals also exhibit strong pleochroism visible to the naked eye. A crystal may look blue if seen through the acute faces of the rhombohedron and, when viewed through the obtuse faces it may look colorless.

You might think that such a rare gemstone would only be collected for jewelry or display, but benitoite actually does have a use in industry. It can be used to

# Silver Pick Field Trip

(Rock Sale)

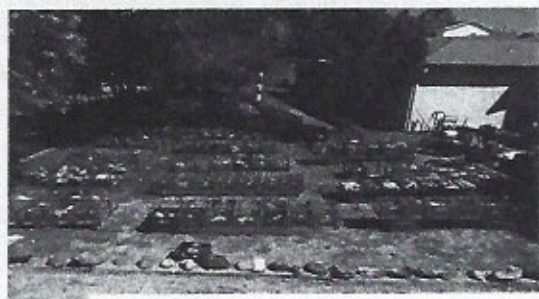
From over 30 years of the adventures of  
Dick and Betty Pankey

Friday, Saturday, Sunday (each weekend) Aug. 5<sup>th</sup> to 14<sup>th</sup> / 8:00 AM to 4:00 PM  
Monday thru Thursday by appointment

Unique Garden Rocks, Lapidary Rough, Slabs, Minerals, Specimens, Equipment and Tools

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Petrified Wood	Chalcedony Bertrandite	Tools
Obsidian	Quartz	Supplies
Agates	Slabs	Findings
Jasper	Rhyolite	Grit & Polish
Volcanics	Geodes/Nodules	Magazines
Wonderstone	Minerals	Books
Desert Roses	Crystals	T-Shirts
Garden Rocks	Fossils	Posters
Drill Cores	Specimens	and much
Jade		



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align electron microprobe beams. The pieces required for this purpose are actually gem-quality. This only increases the value and rarity of the stone.

Most benitoite however finds its way into gemstone collections. It may be displayed in its raw crystal form, which can be quite striking, or it may be cut and faceted. Benitoite is also crafted into jewelry such as pendants, earrings, and rings. As you might expect however, benitoite jewelry is quite rare and hard to come by. When you do, you will often be paying an arm and a leg for it.

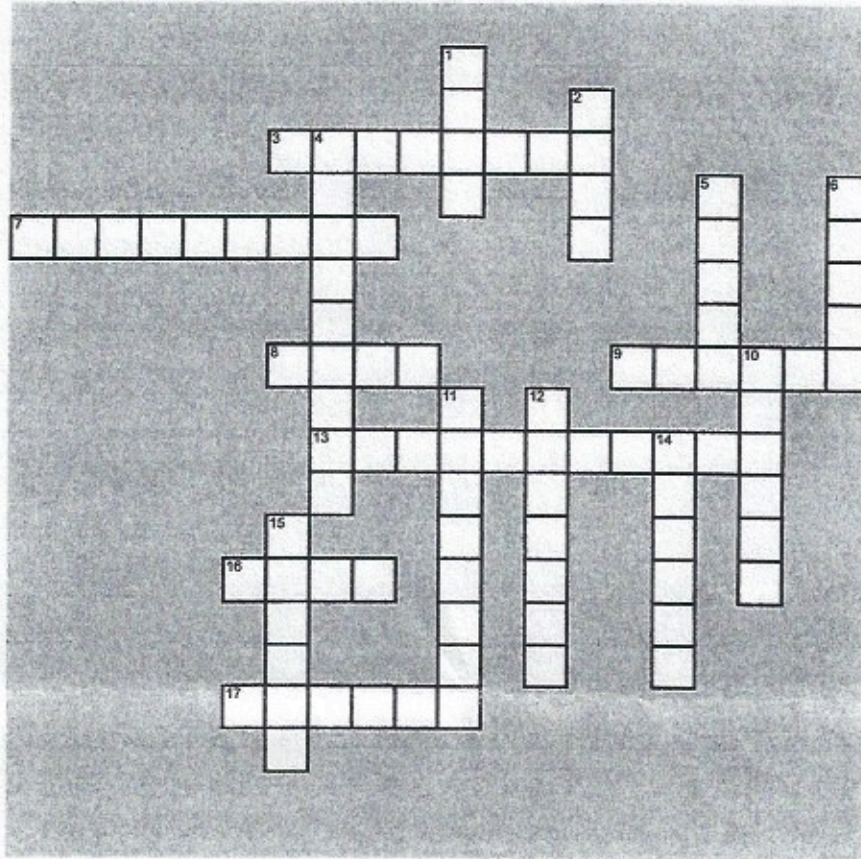
SourceS:

[https://www.conservation.ca.gov/cgs/Pages/Publications/Note\\_11.aspx](https://www.conservation.ca.gov/cgs/Pages/Publications/Note_11.aspx)

<http://www.gemcoach.com/benitoite-guide/>



# July Diamonds



## Across

- 3 Rock that is really glass
- 7 Source of lime for commercial uses
- 8 Panned or mined
- 9 Rock that Da Vinci Carved
- 13 Solid or near solid geodes
- 16 Clayton's black diamonds
- 17 Pick of 30 years of diamond adventures

## Down

- 1 Very hard green rock used in many carvings
- 2 Parallel banded variety of chalcedony, Not Agate
- 4 California's blue Diamond
- 5 Rock that encases bugs
- 6 Blue stones of Berkeley
- 10 Hardest Rock that is most of Mt. Diablo
- 11 Hall that is on the Center in Clayton
- 12 Silvery liquid mineral
- 14 Hollow thundereggs
- 15 Rock that once lived