

WHITTIER

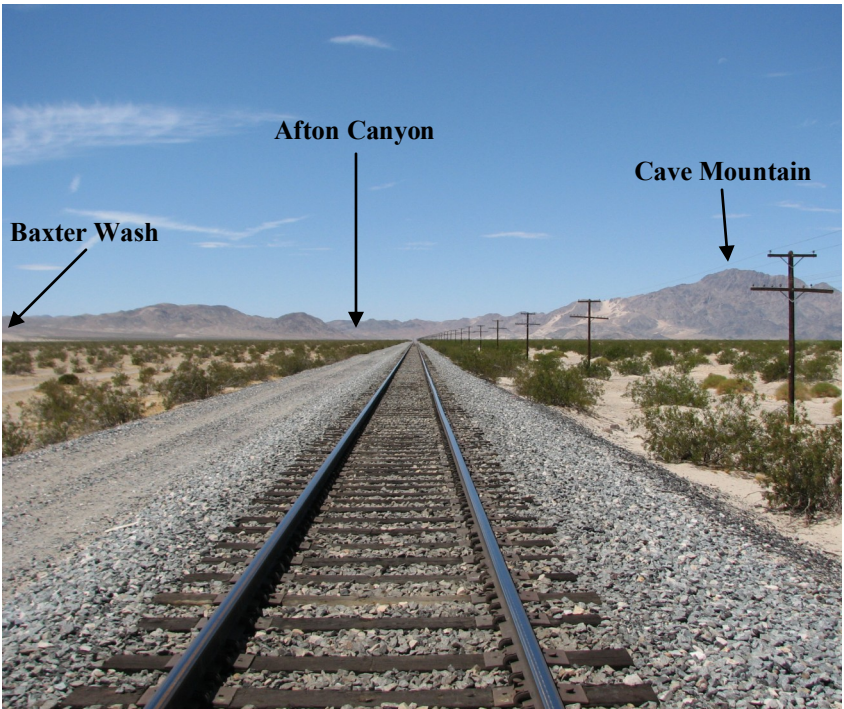
ROCKHOUNDER

GEM & MINERAL
SOCIETY

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Meeting Date: September 22
"Beads Around the World"



From a photographer's perspective: A desert vista featuring a view of Afton Canyon's East entrance on a hot Summer day.

ROCKHOUNDER

THE PREZ SEZ:

WOW! Summer is almost over. It seems like I was just writing my last Presidents message as we were getting ready for the "Picnic in the park". Which was, as usual, a great get together with good food and good friends. We departed from the usual routine in the food department and took advantage of the grills which are supplied by the park department. We had hot dogs along with the sumptuous array of pot luck dishes. Whatever happens, a rockhound will never starve. When we get together, food happens.

Getting back to the subject, Labor Day marks the end of Summer and for WGMS members sounds the starting bell for the final stretch in preparation for our annual Gem, Mineral & Jewelry Show. You have all been working throughout the summer months getting your lapidary and jewelry projects finished for display at the show, haven't you? There are only 46 days after Labor Day until the show. Use them well. Our show is our greatest opportunity for exposure to the general public. We need to put our best foot forward. Well organized display cases go a long way toward getting people interested in our hobby. New members are our life blood, so let's all do our best to make WGMS one of the best organizations in Whittier.

There I go again, lecturing. Hope you all had a good summer.

See you at the September meeting.

Jerry

WGMS General Meeting

Thursday, September 22, 2011

at 7:30 PM

"Beads Around the World"

Beads are among the earliest objects worn as jewelry, either as hunting trophies (bear claws, etc.), religious symbols or as objet-de-art. They have been found in the remains of every vanished civilization we know of and have been discovered in the trash piles of groups pre-dating organized cities.

With that in mind, Janie Duncan, longtime member and editor for the Monrovia Club will be our featured guest speaker as we kick off the return from the heat(?) of Summer. Janie is a knowledgeable collector of rare and interesting beads and is bringing part of her collection for our edification and interest, including some from early Egyptian and pre-Egyptian civilizations.

So please join on September 22 at 7:30 PM for an exceptional program.

Prayer Beads Around The World

It is interesting to consider that although the major religions of the world are supposedly dissimilar, and perhaps it's a matter of opinion actually how dissimilar they really are, they do share a common characteristic in the use of prayer beads. In fact, two thirds of the world's population use prayer beads in their religious practices.

Primarily used to count the repetition of prayers or incantations, their use has extended to meditation, protection against negative energy and for relaxation. They may have physical, metaphysical and psychological effects on their user and allow the user to keep track of prayers with little effort by almost subconsciously counting out the beads.

Prayer beads are used in three widely accepted ways:

- repetition of the same devotion a set number of times.
- repetition of several different prayers in a pattern.
- meditation.

Hinduism

The earliest known users of prayer beads, thought to be first used in the eighth century BC, and possibly linked to the invention of the abacus by the Chinese. Hindus call them Japa Mala, Japa meaning repeating of a mantra and Mala, a garland.

There are two main branches of the religion, Shaivism and Vishnuism, and each employ different mala. Shaivists string up to 108 beads made from rudraksha seeds, found on the island of Java. Vishnu mala are wooden beads carved from the tulasi tree.

The number of beads is significant in that it is thought to represent the nine planets in the twelve astrological houses or the names of Hindu gods.

Buddhism

Buddhism dates from around 500 BC and they adopted the Hindu practice of using mala. Tibetan Buddhists use 108 beads, some believing it represents the possible number of sins. A larger mala, consisting of 111 beads is sometimes used, one mala counting as 100 mantra and the additional eleven to compensate for errors.

In China, wrist malas are often made of 27 beads and are sometimes referred to as prostration rosaries, as they are easier to hold when praying prostrate. They can be made of wood, seeds or animal bone, and semi precious stones such as amethyst and carnelian, are also used.

Islam

It is not clear when Muslims adopted the use of prayer beads. They are known by them as Subha or Misbaha and consist of 99 beads, representing the attributes of God, and an elongated leader bead reserved for reciting the name of Allah. Smaller mala are also used, made up of 33 beads being rotated three times. They are often made of wood or from date stones produced in Mecca.

(Continued on page 10)

Mysterious Moving Rocks: Racetrack Playa

Edited by: Tricia Lynn

While looking for material to write about this month I happened on an article on the moving rocks of Racetrack Playa, also known as the sliding rocks or sailing stones. They are a geological phenomenon found in a seasonally dry lake (a playa) located in the Panamint Mountains in Death Valley National Park, California. The rocks appear to slide across the surface of the playa, leaving long tracks behind them as they go. It seems as if they do so without human or animal intervention. They have never been seen or filmed in motion. Racetrack rocks only move once every two or three years and most tracks last for just three or four years. Rocks with rough bottoms leave straight striated tracks while those with smooth bottoms wander about.

Most of the moving stones originate from an 850 foot high hillside made of dark dolomite on the south end of the playa, but some are intrusive igneous rock from adjacent slopes. Tracks are often tens to hundreds of feet long, a few to 12 inches wide, and typically less than an inch deep. Over the years there were many speculations and possible explanations made on how the stones move, ranging from supernatural to very complex.

But none of the theories explain how two rocks right next to each other could go in two opposite directions or how one could stay put while the one three times it's size, moves. So far every attempt of explanation has been insufficient and purely assumptive. The mystery of moving rocks is yet to be revealed.

Geologists Jim McAllister and Allen Agnew mapped the bedrock of the area in 1948 and made note of the tracks. Naturalists from the National Park Service later wrote more detailed descriptions and *Life* magazine featured a set of photographs. Speculation about how the stones may move started at this time. Most hypotheses favored by interested geologists suggest that strong winds when the mud is wet are at least in part responsible. Some stones weigh as much as a human, which some researchers such as geologist George M. Stanley who published a paper on the topic in 1955 feel is too heavy for the area's wind to move. They maintain that ice sheets around the stones either help to catch the wind or move in ice flows.

Bob Sharp and Dwight Carey started a Racetrack stone movement monitoring program in May of 1972. Eventually thirty stones with fresh tracks were labeled and stakes were used to mark their locations. They also tested the ice flow hypothesis by corralling selected stones. Ten of the initial stones moved in the first winter with Mary Ann (stone A) covering the longest distance at 212 feet. Two of the next six monitored winters also saw multiple stones move.

No stones were confirmed to have moved in the summer and some winters none or only a few. In the end all but two of the thirty monitored stones moved during the seven year study. At 2.5 inches in diameter Nancy (stone H) was the smallest monitored stone. It also moved the longest cumulative distance, 860 feet, and the greatest single winter movement, 659 feet. The largest stone to move was 80 pounds.

Professor John Reid led six research students from Hampshire College and the University of Massachusetts in a follow-up study in 1995. They found highly congruent trails from stones that moved in the late 1980's and during the winter of 1992-1993. At least some stones were proved beyond a reasonable doubt to have been moved in ice flows that may be up to half a mile wide. Physical evidence included swaths of lineated areas that could only have been created by moving thin sheets of ice. So wind alone as well as in conjunction with ice flows are thought to be motive forces.

Physicists studying the phenomenon in 1995 found that winds blowing on playa surfaces can be compressed and intensified. They also found that boundary layers (the region just above ground where winds are slower due to ground drag) on these surfaces can be as low as 2 inches. This means that stones just a few inches high feel the full force of ambient winds and their gusts, which can reach 90 mph in winter storms. Such gusts are thought to be the initiating force while momentum and sustained winds keep the stones moving, possibly as fast as a moderate run (only half the force required to start a stone sailing is needed to keep it in motion).

As part of my research into these amazing stones I watched a video on YouTube that showed the playa under a thin layer of water that moved with the wind. The water crept along the ground and took small stones with it. They theorized that at night when the temperature drops that the surface of the water freezes and a thin collar of ice forms and drags the stones with it. The direction of the wind on different days can contribute to the changing directions of the tracks. What a wonderful and innocent mystery in an age of deception.

References:

Messina, P., 1998, *The Sliding Rocks of Racetrack Playa, Death Valley National Park, California: Physical and Spatial Influences on Surface Processes*. Published doctoral dissertation, Department of Earth and Environmental Sciences, City University of New York, New York. University Microfilms, Incorporated, 1998.

(Continued on page 10)

**WGMS Field Trip
Gaviota & Refugio Beaches
September 24-25, 2011**

This month we will escape the heat and head for Gaviota and Refugio Beaches for fossil whalebone! The fieldtrip is scheduled for Saturday, September 24th and Sunday, September 25th. Refugio Beach is a 2 hour drive from Pasadena. We will be meeting Saturday at Refugio Beach at 10:30AM, then at Gaviota Beach at 1:00 PM for the 1:58 PM low tide. On Sunday we will have the option of reversing the order and to search some new areas. In the past we have found petrified whale bone and fish fossils on these beaches, so come and join us for a family friendly excursion to the beach!

There is a \$10 per car fee for the beach (paying at one covers both). Dress in layers - as it may be cold and we will get wet. Bring food and beverages. Bring a bucket or bag for your findings, maybe a sturdy knapsack. Small gardening hand tools can come in handy to pry up petrified bone.

I will have details and maps at the September 22st Monthly Meeting. If you will be attending or are looking for more information, please call me at 626-914-5030 or by email at joenmar1@verizon.net.

**CFMS Field Trip
Jade Cove- September 15-18th 2011**

Our September field trip will be to Jade Cove, south of Big Sur. We will be looking for Nephrite Jade. It can be found along the shoreline. You can come up for the day or join us camping over night. Deb and I will be there Thursday September 15th to Sunday 18th. Day use free by side of road, camping \$22.00. No electric hookups. 45 campsites half are assigned on a first come, first served basis. You now can reserve your campsite. See contact information below. 8 persons per site. Each site has a picnic table, grill and fire pit. Flush toilet restrooms and water nearby. Saturday night there will be a potluck dinner.

Directions: From Ventura head north on Freeway 101, at San Luis Obispo, take Highway 1 north, towards the coast, to Morro Bay, continue on Hwy 1 north approximately 60 miles from Morro Bay to Plaskett Creek campground.

Campground is on right side (east). Once at campground, look for a CFMS sign next to the sign by entrance or by Robert's campsite #035. Approximately 235 miles from Thousand Oaks, 3.5 - 4 hour drive time.

Meeting: Friday/Saturday 9am-4pm. Sunday afternoon. We will meet at Robert's campsite #035. There will be a short briefing of the sites. We will be going to Jade Cove, Sand Dollar Beach, Willow Creek, Please remember to sign a release form to participate in the field trip. From the camp to Jade Cove we will then drive south on Hwy 1 half a mile to a long pull out on right side (west) with a entrance to Jade cove. Use the stairs to climb over the fence and walk approximately 150 yards across a grass area to a switch back down to the cove, approximately 100 yards, use sturdy shoes. The bottom of the trail can be washed out so take your time. Walk over the bigger rocks at the basin to the center of the cove where there is a small beach. In the surf and along shore Jade can be found amongst the other rocks. Be careful and aware when collecting close to the surf zone.

Mineral to collect: Nephrite Jade, Serpentine, Actinolite, Soap Stone, Abalone shells.

Tools: Collecting bags, buckets, day pack, digging tools, rock pick, pry bar, eye protection, trowels, hand rake, hat, sunglasses, sunscreen, sturdy shoes, rubber boots or old tennis shoes, layered clothing, towels, change of clothes/shoes in case you get wet. Drinking water, lunch or snacks. camping gear if you plan on spending the night. (The main tools to use are simple garden tools, a hand trowel and hand rake)

Please let us know if you are going to go on the field trip, weather changes. If we don't know you're going on the field trip, we won't be able to contact you if the field trip is canceled

Color aerial photo of Sand dollar beach to Jade cove if you are interested, e-mail me and I'll send it to you

Robert Sankovich
CFMS Co Chair Field Trips South
rmsorca@yahoo.com

Mysterious Moving Rocks: Racetrack Playa

(Continued from page 7)

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The Coral Geode, 09/08

Prayer Beads Around The World

(Continued from page 5)

Christianity

When the first rosarys were made, 150 beads were used representing the number of psalms in the bible. That number is still used although there are variations of one third and two thirds, representing different types of prayer. Catholics use the Holy Rosary with 54 beads plus an additional 5 beads as prayer beads. They are usually composed of beads made of glass, amethyst, quartz, onyx or pearl, with a silver or gold crucifix at the centre.

Eastern Orthodox Christians use knots and beads, the shorter knotted ropes being worn around the wrist. Greek prayer ropes, called komboloi have 33, 50 or 100 knots of wool or sometimes beads, and the Russian chotki consist of 33, 50 or 500 knots.

The On-line Bead Store:

<http://shunteroo.wordpress.com/2011/08/11/prayer-beads-around-the-world/>

What is Dichroic Glass?

by Steve Weinberger

Most of us have seen the fabulous jewelry objects made with dichroic glass, and some of us have worked with it. Like many of the synthetic materials we've used in lapidary and jewelry, dichroic (Dye-Cro-Ick) glass was developed for another use other than jewelry. The word dichroic comes from two Greek roots - "di" for two and "chroma" for color. Thus, dichroic literally means "two colored".

First developed by NASA in the 1950's for use in satellite mirrors and optical filters, the glass is made by evaporated onto glass in a vacuum chamber. That golden sheen you see on the face mask of our astronauts as they do their space walks is really a dichroic coating meant to protect against the glare of natural and obviously unfiltered sunlight.

The various ultra-thin coatings are metallic oxides. Gold, silver, titanium, chromium, aluminum, zirconium, magnesium, and silicon are the metals used. As the oxides are exposed to high temperatures and a high voltage electron beam, they are vaporized and deposited onto the surface of the glass. Each metal oxide produces different colors on the glass. Often several different oxides are deposited on the glass to produce varying effects. These thin layers have a total thickness of three to five millionths of an inch! The dichroic coating itself has no color. The colors are created by light striking the coatings on the glass. Each piece has three colors associated with it a reflected color, a transmitted color and a third reflective color that can be viewed at a 45 degree angle. This is what causes the glass to change color when you turn the piece.

The resulting plates of glass can then be fused with other glass in a kiln. Certain wavelengths of light will either pass through or be reflected, causing an array of color to be visible. Colors vary, even with using glass from the same larger piece because of variations in the firing process and thus, each piece of fused dichroic glass becomes unique.

Although dichro is an expensive material due to the high cost of manufacture (a 4" x 4" clear piece can cost about \$14 while some patterned or textured sheets of the same size can run as much as \$65 each), the resulting jewelry can be very striking. Dichro is available from many sources.

References:

Becky Edmundson, instructor at Wildacres
Wikipedia <en.wikipedia.org/wiki/Dichroic_glass>
Artisan Dichroic <www.artisandichroic.com>
Trezora Glass www.trezora.com

Chipper's Chatter, Vol 52, No. 1, 2008

Stone Sayings

The following are just a few saying, expressions or idioms that use rocks and minerals to paint a picture:

STONES

- stone soup
- cast in stone
- Can't get blood out of a stone
- stone cold sober
- have a heart of stone
- A rolling stone gathers no moss.
- stone dead
- leave no stone unturned
- Sticks and stones may break my bones but words will never hurt me.
- sink like a stone
- kill two birds with one stone
- He who lives in glass houses shouldn't throw stones
- a stone's throw away

ROCKS

- as solid as a rock
- between a rock and a hard place
- be on the rocks
- rock bottom

MINERALS

GOLD

- as good as gold
- worth your weight in gold

- a gold digger
- All that glitters is not gold.
- have a heart of gold

SALT

- rub salt into the wound
- be the salt of the earth
- any person worth their salt
- take something with a pinch of salt

CRYSTAL

- crystal clear

SILVER

- Every cloud has a silver lining.
- be born with a silver spoon in your mouth
- give someone something on a silver platter
- silver-tongued

LEAD

- Go down like a lead balloon.

BRASS

- as bold as brass
- the brass ring
- get down to brass tacks
- the top brass
- Where there's muck, there's brass.

Upcoming CFMS Gem Shows

- Sept 10-11 DOWNEY, CA.** Delvers Gem & Mineral Society
Woman's Club of Downey, 9813 Paramount Blvd.
Hours: Sat 10-6; Sun 10-4
- Sept 23-25 SAN BERNARDINO, CA.** Orange Belt Mineralogical Society
Western Regional Little League Park, 6707 Little League Dr.
Hours: 9 to Dusk daily
- Oct 2 FALLBROOK, CA.** Fallbrook Gem & Mineral Facility
123 W. Alvarado St, Ste. B
Hours: 10 - 4
- Oct 8-9 TRONA, CA.** Searles Lake Gem & Mineral Society
13337 Main Street
Hours: Sat; 7:30-5; Sun. 7:30-4
Website: www1.iwvisp.com/tronagemclub
- Oct 15-16 WHITTIER, CA. Whittier Gem & Mineral Soc**
Whittier Community Center, 7630 Washington
Hours: 10-5 Daily
- Nov 5-6 LANCASTER, CA.** Palmdale Gem & Mineral Club
Antelope Valley Fairgrounds, 2551 West Ave. H & Hwy 14
Hours: 9-5 daily
Website: www.palmdalegemandmineral.com
- Nov 5-6 SAN DIEGO, CA.** San Diego Mineral & Gem Society
Al Bahr Shrine Center, 5440 Kearny Mesa Road
Hours: Sat. 9:30-5; Sun. 10-4
Website: www.sdmg.org
- Nov 19-20 OXNARD, CA.** Oxnard Gem & Mineral Society
Oxnard Performing Arts Center, 800 Hobson Way
Hours: Sat. 9-5; Sun. 10-4
Website: <http://www.oxnardgem.com>

WGMS MEETING LOCATION!
Whittier Community Center
7630 Washington Ave. Whittier



Editor: Jay Valle, 1421 Latchford Avenue, Hacienda Heights, CA 91745
Home: (626) 934-9764; E-Mail: res19pnb@verizon.net
Bulletin exchanges are welcome and should be sent to the editor.

Affiliations



California Federation of Mineralogical Societies
American Federation of Mineralogical Societies
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(See page 4 & 15 for info & map)