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October 2010

The 869th Meeting of The Mineralogical Society of Southern California

Mines and Minerals in Minas Gerais

By

Bruce Carter

Friday, October 8, 2010 at 7:30 p.m.

Geology Department, E-Building, Room 220

Pasadena City College

1570 E. Colorado Blvd., Pasadena

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October 8 Program

Mines and Minerals in Minas Gerais

In August and September of 2009, Bruce and Kathy Carter joined the Natural History Museum tour to Brazil led by Tony and Kathy Kampf. Although the emphasis was on pegmatites, they visited a variety of other sites including alluvial deposits, hard rock gold mines and emerald mines in metamorphic rocks. Starting in picturesque hilltop colonial towns the trip continued through scenic forests and rugged mountains and included visits to gemstone dealers in several towns and cities. Bruce will show some of the classic mines and the minerals found in them as well as photos from Rio de Janeiro and Iguzau Falls.

Bruce Carter taught geology at Pasadena City College for 34 years before his retirement in 2005. He served as Dean of the Natural Sciences Division for 18 years.

Since his retirement, he and Kathy have traveled in many parts of the world. They look forward to accompanying Tony Kampf on future Natural History Museum trips planned for next summer.

September Program Brief

The program promised to be a hands-on, Identification of Petrified Wood 101 and it was. Helga and Werner Wagner brought several crates of petrified wood specimens for us to examine. Helga went through each piece and told us the significant feature of the piece, the location and the species. There were also four stereoscopes set up with petrified wood and real wood samples side by side for comparison. For reference, Helga recommended Common Fossil Plants of Western North America by William D. Tidwell, Identifying Wood by Accurate Results with Simple Tools by R. Bruce Hoadley, and Text Book of Wood Technology by A. J. Panshin and Carl de Zeeuw. Some petrified wood maintained its wood grain structures. A feature comes in handy when identifying the species of plants. To observe the "wood grain," the sample must be cut against the "wood grain" on a 90 degree angle, then polished so as to display the fine grain. Below are two samples on display. Can you guess what trees these were? Hint: one is oak and one is palm.



It is Time to think about Volunteering for Offices

November is the time when MSSC forms a nomination committee to nominate candidates for offices in the upcoming new year. MSSC currently has several empty offices and chairs that need to be filled. Anyone interested in filling any office and/or chair please contact president Geoffry Caplette at (626) 798-0664 or email him at jaspag@earthlink.net before November 12, 2010.

Increasing Membership

The membership of MSSC has been decreasing steadily for the past few years. We need to work on increasing membership. California Federation of Mineralogical Societies (CFMS) will have a forum on ways of increasing membership following the CFMS Directors meeting in Visalia on Saturday, November 13th, 2010. The forum will be hosted by members from several societies that have growing membership to share ideas and suggestions. The location of the forum will be announced during the Directors meeting. Anyone who is interested in attending the forum should contact MSSC CFMS Director, Jo Ann Ritchey at (626) 359-1624

Mineral Locality Symposium and Field Trip

October 23-24, 2010

The upcoming Fall Mineral Locality Symposium is sponsored by Friends of Mineralogy-Southern California Chapter and the University of California at Riverside (UC Riverside) Geology Department. It will be held at UC Riverside in Riverside, CA on Saturday, October 23, 2010

followed by a field trip on Sunday, October 24.

The symposium includes several speakers on various topics, a silent auction, tours of three U C Riverside laboratories: High Pressure lab, Mineral Kinetics lab and SEM/TEM facility and a film entitled: Red Diamonds: Exploration in Australia. The speakers and topics are as follow:

- Dr. Larissa Dobrzhinetskaya on **Kimberlite Diamonds**: Diamond formation; history and role in political/ economic stability
- Dr. Doug Morton on **Lithium-Bearing Pegmatites**, Petrogenesis at Pala
- Gina Romano on **Kinetics of sulfide mineral oxidation in seawater**: implications for mining seafloor hot springs.
- Danielle Montgomery on **Kinetics of tungstate mineral dissolution in groundwater**: implications for environmental geochemistry.

The Sunday field trip will be announced at the meeting on Saturday. However, high clearance vehicles may be needed for the field trips, 4-wheel drive recommended. Car pooling will be available.

The address of UC Riverside is 900 University Avenue, Riverside, CA 92521 Phone: (760) 728-1130 website: <http://www.UCR.edu>. Directions or map to the UC Riverside campus is available at the website.

CFMS FIELD TRIP -SOUTH

CHRISTMAS TREE AGATE

(Reprint from CFMS Newsletter October 2010 issue)

By Adam Dean

DO NOT MISS THIS ONE DAY EVENT YOUR OPPORTUNITY TO COLLECT SOME OF THE FAMOUS CHRISTMAS TREE AGATE JUST IN TIME FOR CHRISTMAS.

WHEN: October 9th 2010 @ 7:30 sign in – depart at 8:00 AM

WHERE: Cady Mountains

MEET: Dairy Queens in Ludlow (North Side of 40 FWY)

WHAT TO BRING: collecting bags/buckets, rock hammer, spray bottles, digging equipment gloves and goggles.

This is the heart of the Mojave Desert and the weather can be unpredictable this time of year so dress accordingly. We will be collecting the Christmas Tree Agate. From the meeting spot we will caravan North to the collecting location (4X4) is highly recommended.

Bring lunch. This widespread field offers no shade. Gas and food available in Ludlow. Waiver of

liability will be signed at the meeting spot. Other materials at this site may include agates and jaspers with sections of multi-shaded pink opal and some very nice agate that looks like pink Mexican lace Agate. Stayovers may camp at a number of undeveloped sites or at the hotel in Ludlow. Treat the desert with respect - tread lightly and pack it in / pack it out.

Gemstone Carving by Harold Van Pelt

on Display at Bowers Museum

By Shou-Lin Lee

Earlier in September, I got an email from MSSC member Eugene Reynolds. He told me that the Bowers Museum had a new exhibit on gemstone carvings by Harold Van Pelt. I know Harold Van Pelt and his wife Erica Van Pelt as renown photographers of gem and minerals and have a book by them too. The Bowers Museum's website had pictures of some pieces on display. I remembered that years ago there was an article in Rock and Gem magazine about someone who carved rock crystal into very refined containers, cups, jars and stemware. I was very impressed by the design, and the workmanship. Just to think about how much time and patience had been put into creating those pieces. But I did not remember the name of the artist because the article mentioned the artist did not sell his pieces or display them in public. So I was surprised to finally learn those were by Harold Van Pelt, a name I was already familiar with. So naturally, a trip to Bowers museum was in order at the earliest opportunity.

Compared to Michael Scott's exhibit two or three years ago, this one was smaller, but then Mr. Scott did not make or carve his collection. There are a total of 39 pieces on display. There are two full size hands, one carved out of agate and one of rutile. Then there was a chalcedony skeleton hand where each piece was an exact replica of each bone, then assembled together. Most of the containers and vases were in simple shapes: oval, long tube, round taper, egg shape, but with facets or flutes covered most of the surface. All pieces exuded refined timeless elegance.

Mr. Van Pelt has been carving for about forty-five years. Because of the sizes of his pieces, he built his own tool and machines. The display also included a pictorial presentation of how Mr. Van Pelt carved his pieces step by step.

The Serpentine War

(Reprint from CFMS Newsletter October 2010 issue)

By John Martin

For now, the battle over the California State Rock, Serpentine, is over. The bill, SB 624, to remove Serpentine as The State Rock of California has died in committee. The

original bill was introduced in February of 2009, voted on in the senate with 36 for and 0 against. It was amended in April of 2009 and again in May of 2010. The original bill was not about Serpentine, but was an act to amend Section 49120 of the Public Resources Code, relating to solid waste (Garbage Collection and Disposal) and would remove the requirement that the city represented in this provision be incorporated. Then how did this bill get to be “The removal of Serpentine as our State Rock? Well, after the bill was introduced, voted on and passed in the senate, the bill was amended again in June of 2010 or should be correctly stated, completely re-written to change the content from garbage collection to Removal of Serpentine as the California State Rock. (The original vote of 36- 0 did not change through all of the amendments) So in the dark of night and behind closed doors the entire text and purpose of the bill changed and the vote remained the same. That brings the bill to the War of The Rock. The bill as amended declares the rock “Serpentine” is asbestos and can cause cancer and should not be the state rock and must removed. There is one last amendment to the bill which removes the reference to asbestos and cancer, all that remains in the bill is to remove Serpentine as the State Rock of California from Section 425.2 of the Government Code. There is no reason given in the bill as to why the repeal of Serpentine as the California State rock needed. It is the fifth revision of SB 642 that has died in committee and saved our State Rock. Part of the reason that this bill failed is because of the contacts made to State Officials by the Rockhound community. The voicing of outrage and concern over SB 642 helped to kill this bill. All of those who contacted their representatives and spoke out over this piece of bad and unnecessary legislation deserve congratulations and a very big Thank You for their support. Without the letters, emails and phone calls that were placed, we may not have a State Rock today. Even though it died in committee, comments that were received from State Senators and Assembly Members stated they were not going to support or vote for the bill if and when it came to the floor for final approval. Again, for all of those who helped in this noble campaign to save Serpentine, another big Thank You. Your support effort does show that the system can and does work. For more information on the bill and its amendments go to the ALAA Website www.amlands.org/6652/67112.html and see all the history on SB 642.

The Opal in Myth and Folklore

by Isabel Salmon, New Haven Mineral Club

From: Triassic Valley Bulletin, 1/07

(5th Place – 2008 AFMS Junior Articles, 12 – 17)

I first fell in love with opals when I saw my mom’s engagement ring. My mom didn’t like diamonds so my dad gave her a white fire opal, her favorite stone. I also love mythology, so I decided to research opals. Some stones, like peridot, have a lack of ancient lore, but opals have the opposite problem!

Etymology: Opal may originate from the Sanskrit upala: “precious stone” via the Greek opallios. Pliny the Elder called opal opallus, It was called opalus in Latin

during the Roman Empire. It was a very expensive gemstone that ranked second only to the emerald back then. It was also considered to be a stone of hope, or a lucky stone, due to its mysterious rainbow fire. The ancient Romans called it cupid paederos, “child beautiful as love,” and regarded it as a symbol of hope and purity. Opals were thought to possess the virtues of all the stones whose colors appear there. The Roman Senator Nonius so valued a large opal he possessed that he chose exile rather than surrender the stone to Mark Antony. In Greek mythology, opal was formed from the tears of joy that Zeus wept after defeating the Titans. Many ancient Greeks believed opals gave the gift of foresight and prophecy.

In Arabic lore, it was believed that opals fell from the skies in lightning flashes which gave them their fire as captured lightning. Falling from heaven made opals sacred, and wearing them could make their wearer invisible.

In Indian lore, opal was formed when the Goddess of Rainbows was turned to stone while fleeing from the advances of other gods. A similar legend from India told that the gods Brahma, Vishnu and Shiva fell in love with the same woman, and bestowed upon her the colors blue, gold and red to distinguish her as their own. She died, and the Eternal took pity on her and transformed her into an opal stone with all three colors.

In Australia, many aborigines believed that opal is a half-serpent, half-human devil lurking in the ground, using colorful flashes of magic to lure them to their deaths. However, there is also a legend that a huge opal controls the stars and human love, even the gold in the ground. Another aboriginal legend states that the thunder-spirit, jealous of the rainbow’s beauty, shattered it into opal.

In Europe in the Middle Ages, it was believed that opal could make one invisible, and was nicknamed patronus forum (“patron of thieves”). In medieval Europe, opal was believed to maintain a strong heart, prevent infection, and cleanse the air. However, after the Black Death began to sweep across the continent, the opal was sometimes believed to be the cause of death because it changed in appearance and luster. Because the stone is heat-sensitive, it would react to body temperature changes.

It is not surprising that many years later, Shakespeare would use the opal as a symbol of unpredictability and inconstancy: “Now, the melancholy god protect thee, and the tailor make thy doublet of changeable taffeta, for thy mind is a very opal” – Twelfth Night, Act 2 Scene 4.

It seems that it wasn’t until the nineteenth century in Europe that the opal became known as an ill omen and became connected with misfortunes of royalty. A specifically French superstition has the opal as a jinx. The origin of this story is the fragility of the stone: lapidaries and jewelers were punished if they damaged the stones, and the frequency with which opals broke made them feel that opal had bad luck attached to it.

In more recent times, it has been considered unlucky to wear opal if it isn’t your birthstone. This belief seems to trace back to Sir Walter Scott’s novel Ann of

Gierstein, where the protagonist has her life force, or soul, trapped in a cursed opal.

In 2005 I was able to travel to Australia and New Zealand as a student ambassador. A high point of my trip was the opportunity to visit an opal mine and store. When I viewed the specimens of white and black opal, it was easy to imagine how such a magical, mysterious stone could inspire so much myth and legend.

Sources:

<http://www.worldwidegems.net/products/opal.htm>

<http://www.ellensteiber.com/thestones.htm>

<http://www.unicorns-garden.com/info/cabinfogo.html>

<http://wyrldology.com/stones/natural/opal.html>

<http://www.suevematsu.com/opal.html>

<http://www.cedarseed.com/air/gemstones.html>

My Beautiful Rock

by Vivian Stockton,

Northwest Arkansas Gem & Mineral Society

From: Rock, Pick & Chisel, 12/09

(2nd Place – AFMS Original Adult Articles)

What a beautiful rock! It was an intense reddish color and sort of clear like a crystal. I saw it as I walked down the path to the bottomland along the Illinois River. I couldn't imagine how it could have lodged there on the hillside. It didn't fit with the limestone or flint rocks that were all over the place. It was rather heavy, but I carried it back up the hill and set it on my porch and admired my treasure each time I walked by.

Within a few days, my friend Donna came by on her way to Gentry to see club member Dean Shafer at his shop and have him identify a stone for her. She, too, admired my find, but had no idea what it was (other than some type of crystal) or why it was where it was found. She suggested that I bring the beauty along and see what Dean thought.

I was so excited. This was my first real find, other than just common ordinary rocks that I often picked up. Dean took the rock in his hands, stared at it for a minute. Then shocked us by touching it with his tongue. He said only two words: Deer Salt!

2010 Calendar of Events

October 2-3 2010, Oroville, CA Feather River Lapidary & Mineral Society Oroville Municipal Auditorium 1200 Meyers Street Hours: 10 - 5 Daily

October 3 2010, Fallbrook, CA Fallbrook Gem & Mineral Society Fallbrook Gem & Mineral Facility 123 West Alvarado Street Hours: 10 - 4 Daily

October 9-10 2010, Grass Valley, CA Nevada County Gem & Mineral Society "Earth's Treasures" Nevada County Fairgrounds 11228 McCourtney Road Hours: 10 - 5 Both Days

October 9-10 2010, Trona, CA Searles Lake Gem & Mineral Society Searles Gem & Mineral Show Building 13337 Main Street Hours: Sat; 7:30-5; Sun. 7:30-4

October 9-10 2010, Vista, CA Vista Gem & Mineral Society Antique Gas & Steam Engine Museum 2040 N. Sante Fe Avenue Hours: Sat; 20-5; Sun. 10-4

October 16 2010, West Hills, CA Woodland Hills Rock Chippers First United Methodist Church 22700 Sherman Way Hours: 10-5

October 16-17 2010, Cayucos, CA San Luis Obispo Gem & Mineral Club Cayucos Vets Hall (next to Cayucos Pier) 100 Placerville Drive Hours: 9-5 daily

October 16-17 2010, Placerville, CA El Dorado County Gem & Mineral Society El Dorado County Fairgrounds 100 Placerville Drive Hours: 10-5 daily

October 16-17 2010, Santa Rosa, CA Santa Rosa Gem & Mineral Society Veterans Memorial Auditorium 1351 Maple Ave Hours: Sat. 10-6; Sun 10-5

October 16-17 2010, Whittier, CA Whittier Gem & Mineral Society Whittier Community Center 7630 Washington Hours: 10-5 both days

October 23-24 2010, Los Altos, CA Peninsula Gem & Geology Society Los Altos Youth Center 1 North San Antonio Road Hours: 10-5 both days

October 30-31 2010, Lakeside, CA El Cajon Valley Gem & Mineral Society Lakeside Rodeo Grounds 12584 Maplevue Street Hours: 10-4 both days