

# HUI PŌHAKU 'Ō HAWAI'I

## Rock & Mineral Society of Hawai'i, Inc.



### Meeting Times

#### MEETING

Wednesday

June 27

6:15-8:00 pm

Makiki District Park

Admin Building

#### NEXT MONTH

African Minerals

#### LAPIDARY

Every Thursday

6:30-8:30pm

Makiki District Park

2nd floor Arts and  
Crafts ldg

#### MEMBERSHIP

DUE COSTS 2011

Single: \$10.00

Family: \$15.00

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### Australian Minerals By Dean Sakabe

June's topic is minerals from Australia. In my particular case, the best mineral from Australia is an amorphous form of Silica related to Quartz, otherwise known as Opal. Not the common form of Opal, with no color that is found in nodules up in the Koolau hillsides, but precious Opal with all of the colors of the rainbow inside each stone. The Opals of Australia range from the white-based opal of Cooper Pedy, the Black Opal from Lightning Ridge, the Grey Based Opal of Mintabie, to the Crystal Opal (and grey matrix opal) from Andamooka.

Opal also forms in concretions within ironstone, such as the boulder opal from Queensland. Queensland could be further broken down to the Kyunha in the north, to the Yowah area, Koriot, Jundah, and Quilpie mines.

Very appropriate for this group: An Opal Pineapple from Australia

**Garnets**, predominately Pyrope and Almandine varieties, are found in Australia. The Pyrope garnets range from black to blood red, whereas the Almandine garnets are brownish to black. Garnet in various forms can be found in many sites throughout Australia, two of the most prolific sites are the "Harts Range" area in the Northern Territory and Fullarton River in Queensland.



**Sapphires** have been found in Australia for over 150 years. In 1851, it was reported that a sapphire was recovered during gold mining on the Cudgegong and Macquarie rivers in New South Wales. In 1854, sapphires were found in the New England area of New South Wales. Furthermore in 1875, sapphires were discovered in Retreat Creek, Central Queensland. Since then, numerous small deposits have been found up and down Eastern Australia. The further discoveries of Sapphires at Sapphire, Queensland led to the commercial Sapphire mining industry. Most of the early production from Australia went through German jewelry agents and was sold into other European countries. A good number of Australian sapphires found their way into the crown jewels of the Russian Imperial family and other Russian nobility.

Most of these deposits are alluvial in nature and follow existing or former watercourses. The

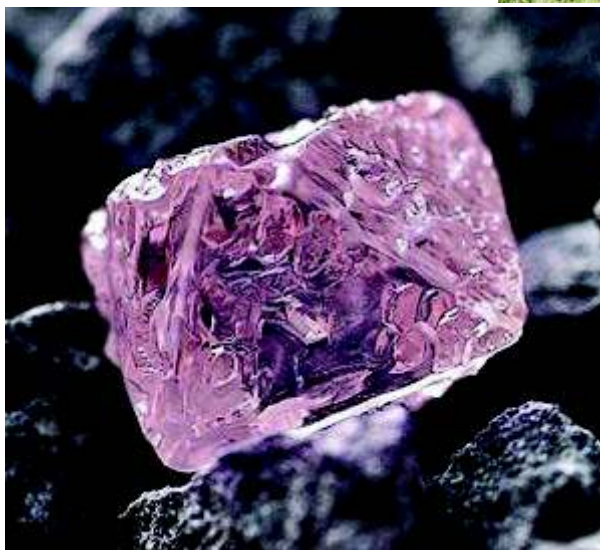
**Special Rock Club Event Announcement Within!**

## Australian Minerals

The landholders have made it real easy at the Fullarton River garnet site. Follow the sign and close all cattle gates

most widely held theory is that sapphire formed deep within the earth's crust and was subsequently carried to the surface by volcanic activity so basalt is often associated with Australian sapphire deposits. Generally, sapphire has been eroded from this basaltic host and concentrated in various streams and river systems. Due to the high specific gravity of sapphire, it does not travel far from its original source.

**Diamonds**, in particular the Argyle Diamonds, fall into three main categories: pink, champagne, and white diamonds. The 4C's guide to quality and value applies to colored diamonds just as it does to white diamonds.



Pink Diamond (12.76 ct Rio Tinto Argyle mine, Western Australia, Australia)

However, colored diamonds are graded for their intensity of color, not lack of it. Argyle diamonds also have two very unique and outstanding features. As much as it is hard to believe, these diamonds are harder than other diamonds and they may fluoresce blue under ultra-violet light. The hardness factor of Argyle diamonds results from its unusual atomic structure. Although all diamonds share the same atomic structure, the atoms of Argyle diamonds are bonded together in more complex arrangements. This complex structure is also one of more the major reasons for the deep colors of the Argyle product mix, especially the champagne and pink diamonds.

Around 70 percent of the Argyle yield fluoresces blue under ultra-violet light; a day with high U.V levels will make an Argyle diamond dance and dazzle with blue flashes.

**Crocoite** is a lead chromate whose name comes from the Greek krokos, meaning "saffron". This is in reference to the bright red orange color of the mineral. Crocoite typically forms prismatic crystals sometimes two or more inches in length. It was first described scientifically after its discovery in the 1760s in Berezovskoe, a gold-mining district on the east slope of Russia's Ural



Crocoite (Dundas, Tasmania)

## Australian Minerals

Mountains. In the 1970s Crocoite was discovered at the Adelaide Mine in the Dundas area of Tasmania, Australia. Crocoite is also found in Minas Gerais, Brazil; Saxony, Germany; and Otjozondjupa, Namibia, however the Tasmania takes the prize. In 2000, Tasmania's governor, the Honorable Sir Guy Stephen Montague Green, proclaimed the adoption of Crocoite as the mineral emblem of Tasmania. Upon reporting the event, the Tasmanian Government Gazette called specimens of Crocoite "amongst nature's most brilliant creations" and "amongst the most beautiful objects to originate underground."

**Chrysoprase** is a form of chalcedony, which is colored by trace amount of nickel. The color variation ranges from deep jadeite green to light translucent glass-like apple green. Chrysoprase is a cryptocrystalline, meaning that instead of being formed by large six sided crystals, the size of the crystals are extremely small and invisible to the naked eye. Chrysoprase can come in various sizes, however, since it is hard to come by, it is generally used for smaller pieces of ornamental jewelry. During the Middle Ages, it was mined in Silesia (Northern Czech Republic and Southern Poland), the Chrysoprase that was mined were used as architectural decorations, mainly in major churches.

The premier places to find Chrysoprase is at the Candala Mine in Marlborough, Queensland, Western Australia. It has been referred to as Australian Jade, due to its resemblance to this gemstone.

Chrysoprase (Marlborough, Queensland, Australia)

**Marra Mamba** is considered the Rolls Royce of all tiger eye by many collectors and lapidarists. In the Hamersley Ranges of the Pilbara region in Australia there are a few small areas where Australian tiger-eye has been found. The best known area is near Mount Brockman. A ridge of hills a few miles long, has produced good quality golden colored material from a number of small deposits. Only two of these deposits have ever produced the "true" marra mamba a very rare type with reds, blues, yellow gold and greens! This has been mined out for nearly twenty years now. Tigereye is still being mined and sold today as Marra Mamba. Some of the new material is nice but not near as colorful or chatoyant (like a cat's eye) as the original deposit.



Marra Mamba Tiger's Eye (Western Australia, Australia)



Below Left: Quartz (Campfield Station, New Territories, Australia)

Below Right: Agates (Agate Creek, Queensland, Australia)





## Special Hui Pohaku o Hawaii Event, Monday 16 July 2012, at 7:00pm, UH Manoa Marine Science Building (MSB), Rm 201

Bryan Swoboda and BlueCap Productions (<http://www.bluecapproductions.com/>), bring you David P. Wilber, legendary mineral collector and long-time host of “What’s Hot in Tucson.” David will make a special audio-visual presentation to members and guests of Hui Pohaku o Hawaii during his brief stay in Hawaii. Please come to meet David as well as Bryan Swoboda and enjoy an exciting evening about minerals. BlueCap Productions will be providing several copies of the 2012 edition of “What’s Hot in Tucson” as door prizes.

A special display of fluorescent minerals will also be available for your viewing enjoyment.

Space is limited to 25-30 people so please come early. Meet on the front Lanai (Ewa side) of the Marine Science Building at 6:45 pm. The building is usually locked after hours and you may not be able to enter if you arrive late. Ample parking is available in the UH visitor’s lot behind Kennedy Theater if you do not have a UH parking permit.

Please see the attached map if you are unfamiliar with the area. If you have difficulties finding our location on the evening of the event, please call Eric De Carlo at 808-429-6777



WE HAVE A FACEBOOK PAGE! LET'S GO LIKE IT!

HTTP://WWW.FACEBOOK.COM/PAGES/ROCK-AND-MINERAL-SOCIETY-OF-HAWAII/103902329673700?V=WALL&REF=SGM

MAHALO TO MARKUS FOR ESTABLISHING OUR *ROCK FACE!*

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The Rock & Mineral Society meets on the 4th Wednesday of each month (except for adjusted dates in November and December) at the Makiki District Park, 6:15-8 pm. Enter from Keeaumoku Street. Parking is free but limited.

The Newsletter is published monthly, some days prior to the meetings and is distributed in electronic format by email (Adobe Acrobat PDF file attachment). Printed copies are "snail" mailed to those who do not have email. The electronic format usually contains full-color images; the print version may be limited to B&W due to reproduction costs.

**DOOR PRIZES**

Please note that we have instituted door prize drawings at our monthly meetings. Because of Hawaii's gambling laws, these drawings cannot be conducted in the common "raffle" format where tickets are sold. Rather, each *paid* member attending the meeting will receive a drawing ticket upon request. A voluntary donation of \$1.00 is requested and encouraged. Drawings will be conducted at the end of the meeting with available prizes awarded in random order. You must be present to win. Please remember: if you win a prize, please bring one to the next meeting. This helps to keep our drawings going. Thank you.

**Parking at Makiki Park**

Parking along Keeaumoku St. starts at 5:30

After that, good luck because it drops off really fast!



Gold nugget (Western Australia, Australia)

**Don't forget to mark your calendars for our special event July 16!**

**See page 4 for details...**



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