

The Opal Express

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Society

May 2020

Volume 53 Issue 5

Happy
Mother's Day

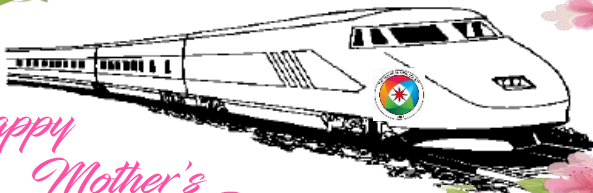


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President's Message

Greetings Opalholics!

I hope everyone is healthy and practicing social distancing when you leave your house. It's a strange new world we're living in at the moment, but I hope everyone is safe and healthy, and keeping busy at home.

Because of the uncertainty of this pandemic, we are not sure what is happening with our annual opal show. That being said, since the show is in November, we are still planning on having the event. Therefore, we will continue moving forward with our plans. We will keep you posted of any changes

Stan McCall
AOS President
Custom Creative Gem Cutting

Member area access is available only to members
In good standing. Any other entry is unauthorized.

USER NAME: member

PASSWORD: opalBBQ (case sensitive).



-- May General Meeting --

As mentioned before, because of the uncertainty of this pandemic and Governor Newsom's stay-at-home mandate, we are not planning on a General Meeting for May.

However, the possibility of having a Zoom meeting has been brought up and if that's feasible, we will send out information regarding such a meeting.

In the meantime, please stay safe and stay healthy!
Stan McCall, AOS President



A warm AOS welcome to the
following new members!

Charles Buda
Daniel Bissonnette

ART CRAWL CANCELLATION

As of this date, we have not received updated information from the City of Anaheim regarding the Art Crawl (A.C.E.) scheduled for May 9th.

In order to keep club members and the general public safe during this time, AOS has made the decision that even if the Art Crawl goes on as planned, we will not participate in the event for May.

There is another Art Crawl event planned for August. At that time AOS will decide whether or not to participate. Keep reading the newsletter to stay updated on this and other future events.

Meet A Future Jewel Of Technology: Gem Of A Beetle Which Thinks It's An Opal

by Deborah Smith, Science Reporter



Pachyrhynchus argus - Layers of transparent spheres packed in a precise hexagonal pattern in this beetle emulate that of the opal.

This Australian beetle really is a gem: the greenish scales on its back are identical to opal.

Andrew Parker, a former researcher at the Australian Museum, was amazed when he examined the internal structure of the scales under a powerful microscope and realized it was the same as that of the precious stone.

"This is the first time opal has been found in animals," said Dr. Parker, who is now at Oxford University in Britain.

The find could lead to a new method for synthesizing opals, not only for use in jewelry, but as components, known as photonic crystals, for the computers of the future, which will rely on the movement of light.

The beetle, *Pachyrhynchus argus*, is commonly found in the rainforests of north-eastern Queensland. Its particular pattern of patches of metallic gleam had probably evolved to make it recognizable to other members of its species in the dim light under the forest canopy, Dr. Parker said. "The optical effect created by this weevil makes it appear strongly colored, whatever angle you look at it."

The discovery is published today in the journal *Nature*.

The color of most opals, and the beetle's scales, is the result of light being reflected from layers of transparent spheres, packed in a precise hexagonal pattern.

The beetle reflects only one color because all of its nanospheres are exactly the same size - about 250 nanometers across (a nanometer is a billionth of a metre) - whereas multicolored opals have a range of different sized nano-spheres.

Dr. Parker said that although liquid opals were easy to make, synthesizing solid ones was notoriously difficult. His team has begun to try to fathom how the beetle creates an opal-like structure using the chemical "factories" inside its cells

"If we can emulate the weevil's means of opal production this would represent a technological breakthrough, particularly since opal, as a photonic crystal, has numerous industrial applications," he said.

Scientists have already had some success copying nature, recently creating artificial mother of pearl by mimicking the way abalones build up nanolayers of different materials to make their shells.

But the beetle's method for making perfect opals posed a bigger challenge than this, because it probably used clever pieces of tiny machinery, such as molecular motors, and templates to extrude the nano-spheres, Dr. Parker said.

From the *Sydney Morning Herald*,
<http://www.smh.com.au>.

Did you know . . .

- Adult beetles have two sets of wings.
- Female beetles usually lay dozens or hundreds of eggs.
- Most beetles only live for a year.
- Beetles cannot see very well, so they communicate using pheromones, sounds or vibrations.
- Some beetles are not considered pests.

From www.pestworldforkids.org

~ Bench Tips ~

This page will be dedicated to bench tips and techniques from our readers. If you have bench tips you'd like to share, let us know! Bench tips can be anything - metal work, lapidary, wirework - anything creative that you would like to share. Send your tips to: aos.editor.02@gmail.com

BURNISHING BEZELS

by Brad Smith

A dapping ball can sometimes be used to burnish a bezel. I noticed this when setting some 10 mm cabs on a piece of filigree. It was difficult to get enough pressure with a pusher or a regular burnisher, so I tried a dapping ball and found it much easier.

Make sure the ball is well polished (hit it with the Zam wheel) and let it ride along the base of your piece. Select a ball big enough so its curvature hits the top of the bezel at the best angle to burnish it down onto the stone.



EMERY BOARDS

by Brad Smith

The sanding boards for doing your nails are one of my favorite finishing tools. I use the ones with a thin foam core. They have enough resistance to sand just the high points off a flat surface and yet give a little when you're trying to smooth off a curved surface.

Plus they're inexpensive and come in a variety of grits. Some grits are so fine they give an almost finished surface. Pick up a few at a beauty supply company or at your local drug store.



Work Smarter & Be More Productive with Brad's "How To"
Jewelry Books on [Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

Opal

Cabochon Cutting on Flat-Laps with Hand Sanding

by
Larissa Williams

11. Expose the color-band

- Using the 600 Disc, continue going over the dome until you expose the proper color-band for optimal fire.
- ⇒ **Do not chase color!** Be aware of your stone - inspect it frequently under strong light with water on the stone. While there **are** different layers of fire in a color-band, do not keep grinding down until there is **no** color left!



side view of stone with color-band



side view with color-band fully exposed

12. Fine-grind the dome, part II

- Using the 1200 Mesh Aqua Diamond Disc, carefully go over the dome with smooth, constant rocking motions in all directions.
- ⇒ Dry the stone and inspect it frequently.
- ⇒ All visible grinding marks should be removed with this step.



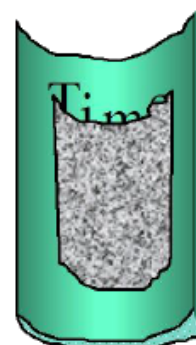
side views

13. Hand-sand the dome

- a) Lay a quadrant of silicon carbide sand-paper, 220 grit, on a pamphlet or small magazine.
- b) Bracing the backing so that it curves slightly, take your dopped stone and sand in a swirling motion of ellipses, while continuously rotating the dop stick.



top view sp & mag

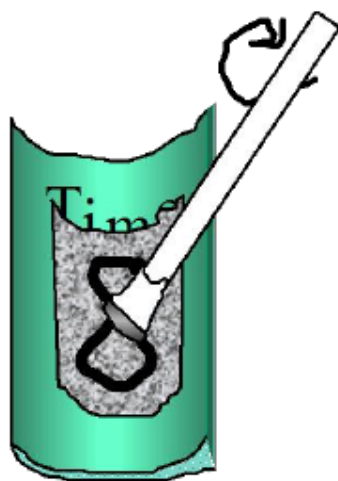


top view, curved

⇒ Detecting Flat or Rough Spots

Wiping the stone clean between passes, use the reflection of the parallel fluorescent light bulbs to scan for flat spots which must be removed.

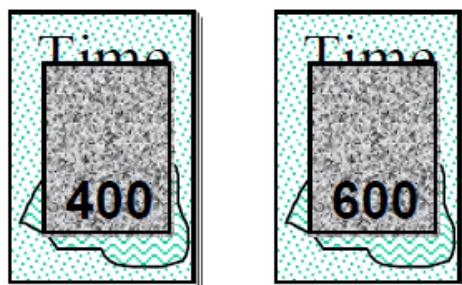
- 1) Hold the stone so that you can see a band of reflected light on the surface.
- 2) Rotate the stone slowly in all directions, watching the band of light. Where the dome is smooth, the band will be continuous. If a flat spot is present, the band will distort.



top view, curved, with stone on dop stick, sanding in ellipses (or 8s), while rotating

14. Fine-sanding the dome

- Repeat step 12 with 400 grit sandpaper and then with 600 grit sandpaper.
- For an extra-fine, quick polish, sand briefly with 1200 grit sandpaper.



top view of different grit sandpaper

- ⇒ In addition to inspecting the stone by light reflection, inspect the stone with a 10x viewer for fine detail.
- ⇒ If you have a long-distance viewer, scan by light reflection using the 10x viewer for the most accuracy.

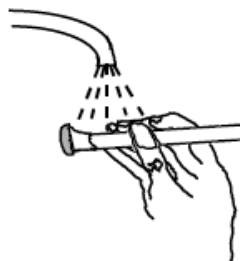


mixed view, 10x viewer and stone

15. Polish the stone

- ⇒ **Do not proceed to this step until ALL scratches or flat spots are removed.**
- a) Rinse your hands and the dopped stone to remove any dirt or grit.
 - b) Go back to the flat-lap and put on the White Tech-10 Pad, applying a small amount of the polishing compound.

This pad is **not** used with water.



side view, rinse

◆ WARNING

Do not allow the stone to overheat!
Continuously check the stone for build-up.

- c) Gently but firmly apply the stone to the disc, rotating and rocking it in the same manner used for grinding.
- d) Wipe the stone off with a dry cloth and inspect the quality of the polish.
- e) Inspect the stone with light reflection. If there are any flat spots, you will need to fine-sand again until you have a perfect dome.
- f) Continue polishing until there is no more improvement to the fire and shine of the stone.

16. Remove the dop

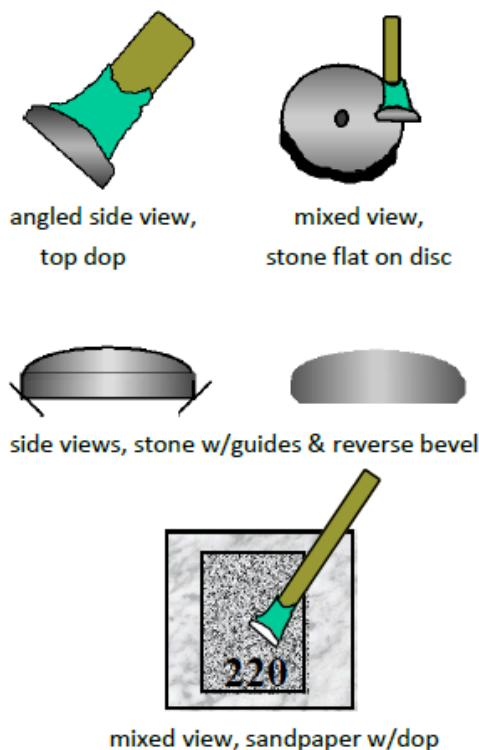
- Wash the dopped stone and dop stick with soap and water. Remove all traces of polish residue before removing dop.
- ⇒ The type of dop removal will depend on whether hot dopping or cold dopping was initially used. Use the appropriate method for your needs.



side view, wash

17. Finish the back of the stone

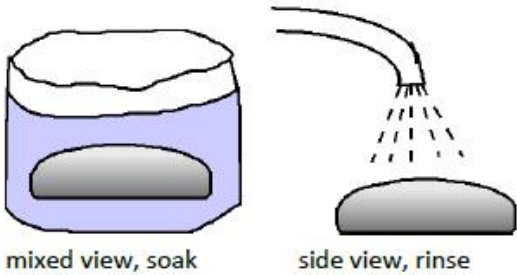
- a) Dop the stone on the top side.
- b) Grind the back smoothly with the 600 Disc, removing all excess potch material.
Be careful of the stone, as the polished surface does not hold the dop as firmly as the rough surface did. Use only light pressure.
Make sure the back is even with the dome.
- c) Grind a very slight reverse bevel on the girdle. This is necessary to remove the sharp edge of the stone.
- d) Hand-sand the back with the 220 grit sandpaper, laying the paper on a flat surface. Also, go over the reverse bevel lightly.



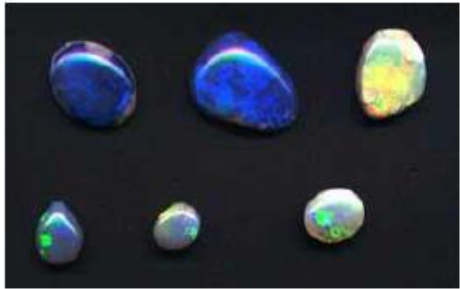
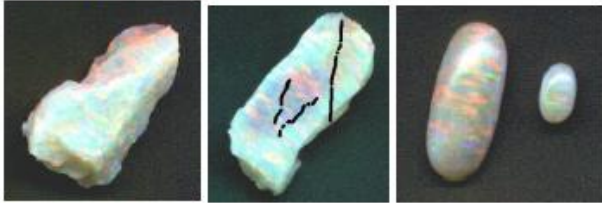
mixed view, sandpaper w/dop

18. Remove the dop

- 1) As before in Step 16.
- 2) Soak the stone in fingernail polish remover or alcohol for a few minutes to remove all traces of dopping wax.
- 3) Rinse off with room temperature water.



19. Enjoy your opal



Originally published in the *Opal Express*, newsletter of the American Opal Society, 1998

Peruvian Blue Opals - How to Spot a Fake
by Antoinette Boulay

If you're looking for blue opals, then a Peruvian blue opal should be your gemstone of first choice. These gems are becoming more and more rare as time goes on, as they can only be mined in the Andes Mountains near San Patricio, Peru. The unfortunate result is that some mines are producing different types of gemstones and dyeing them blue in order to pass these stones off as Peruvian blue opal. (Luckily, if you're looking for an opal inlay ring, this is less of a problem, as the fake opals tend to be used for beads). Opal inlay rings made with blue opals would be a beautiful addition to any jewelry collection.

There are a few ways for you to tell if the Peruvian blue opals you're looking at are not real. The most obvious clue is that fake blue opals will be relatively cheap - around \$30-\$40 for an entire strand of beads. Since the real opals are growing more and more rare, you would never be able to buy a string of beads for so cheap. After all, an opal inlay ring made with blue opal will be several hundred or even thousands of dollars.

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Generally, if a company is making fake Peruvian blue opals, they will take white opals and then work to dye them. If you're worried that you might be buying fake blue opals, you should take a good look at the stones. In a lot of cases, you can tell that it is just a dyed white opal by looking with the naked eye. The blue coloring will be uneven, especially when you turn the stone so the light hits it from different directions. This is very useful if you're thinking about buying an opal inlay ring with blue opal, since you won't be able to tell by the price in some cases, and the weight will be difficult to determine due to the rest of the ring.

Antoinette Boulay is a writer and webmaster at <http://Pearl-Necklace.Info> where you can get a good education in Pearl Necklaces.

UPCOMING EVENTS

Reader: If your organization has an opal or rockhound-related event, please email particulars to info@opalsociety.org. Upcoming Event listings will be included at the discretion of The Opal Express editor as space and scheduling permit.

June 1 - 2: CAMBRIA, CA
San Luis Obispo Gem & Mineral Club
Cambria Veterans Hall
1000 Main St, Cambria, CA 93428
Hours: 10:00 AM to 5:00 PM
Contact: Kim Noyes; 805-610-0603
Email: kim@gmail.com
Website:

September 26-27: LANCASTER, CA
Palmdale Gem & Mineral Club
Rock & Gem Roundup
Antelope Valley Fairgrounds
Van Dam Pavilion
2551 W Avenue H, Lancaster, CA 93536
Hours: 10:00 AM to 5:00 PM
Contact: Allison McClung; 661-839-7403
Email: ali_cares@aol.com
Website:
<http://palmdalegemandmineral.org/>

September 26 - 27: LODI, CA
Stockton Lapidary & Mineral Club
Earth Treasures Gems Minerals &
Jewelry Show
Lodi Grape Festival Grounds
413 E. Lockeford St., Lodi, CA 95240
Hours: 10:00 AM to 5:00 PM
Contact:
Email:
Website: <https://stocktonlapidary.org/>

October 10 - 11: LOS ALTOS, CA
Peninsula Gem & Geology Society, Inc.
Recreation With Rocks
Los Altos Youth Center
1 North San Antonio Rd., Los Altos, CA 94022
Hours: 10:00 AM to 5:00 PM
Contact:
Email:
Website: <https://pggs.org/>

October 11: FALLBROOK, CA
Fallbrook Gem and Mineral Society
123 W Alvarado St
Hours: 9-4
Contact: Michelle Shearer; 760-805-2184
Email: info@fgms.org
Website: www.fgms.org

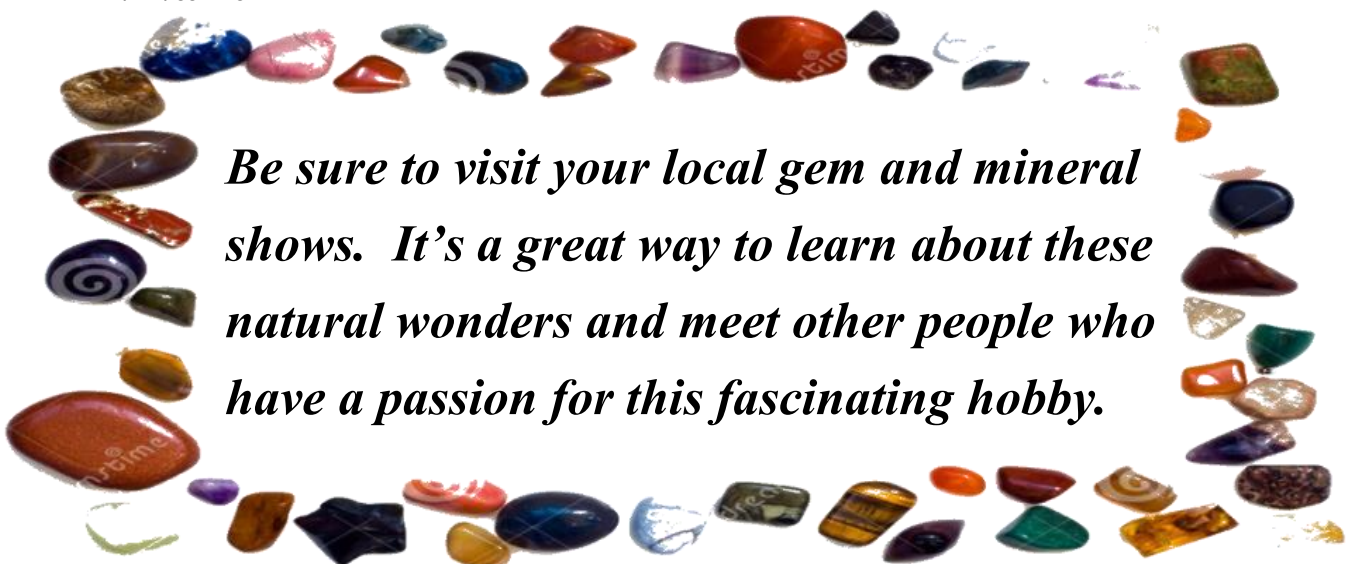
October 17 - 18: SANTA ROSA, CA
Santa Rosa Mineral & Gem Society
Santa Rosa Veterans Memorial Building
1351 Maple Ave., Santa Rosa, CA 95404
Hours: Saturday 10:00 AM to 6:00 PM
Sunday 10:00 AM to 5:00 PM
Contact:
Email:
Website: <http://www.srmgs.org/>

October 24 - 25: SACRAMENTO, CA
Scottish Rites Center
6151 H Street, Sacramento, CA 95819-2604
84th Annual Sacramento Gem, Mineral and
Jewelry Show
Hours: Sat 10 am - 5 pm, Sun 10 am - 4 pm
Contact: (916) 662-5819,
gemshow@sacramentomineralsociety.org
Web site: <http://sacramentomineralsociety.org>
Show web site: <http://sacgemshow.com>

October 31 - Nov 1: SACRAMENTO, CA
Sacramento Mineral Society
84th Annual Sacramento Gem,
Mineral and Jewelry Show
The Scottish Rite Temple
6151 H St., Sacramento, CA
Hours: Saturday 10:00 AM to 5:00 PM
Sunday 10:00 AM to 4:00 PM
Contact: Alyssa Meiszingler; 916-662-5819
Email:
gemshow@sacramentomineralsociety.org
Website:
<http://www.sacramentomineralsociety.org/>

November 14 - 15: Yuba City
Sutter Buttes Gem & Mineral Society
Yuba-Sutter Fairgrounds
442 Franklin Hall, Yuba City, CA 95991
Hours: Sat. 10 am - 5 pm, Sun. 10 am - 4 pm
Contact: (916) 677-6696, horita@comcast.net
Show web site: <http://sutterbuttesgemmin.org>
29th Annual Festival of Gems & Minerals:
Raffle, silent auction, kids table, door prizes,
exhibits and 14 dealers.

November 21 - 22: ANAHEIM, CA
American Opal Society, Inc.
53rd Annual Opal Gem & Jewelry Show
Business Expo Center
1960 S. Anaheim Way, Anaheim, CA 92805
Hours: Saturday 10:00 AM to 6:00 PM
Sunday 10:00 AM to 5:00 PM
Contact: Veronica Purpura; 714-501-9959
Email: info@opalsociety.org
Website: <http://opalsociety.org>



Be sure to visit your local gem and mineral shows. It's a great way to learn about these natural wonders and meet other people who have a passion for this fascinating hobby.

American Opal Society Membership Application

FILL IN APPLICABLE INFORMATION		DUES / FEES	AMOUNT PAID
DUES:	RENEWING MEMBERS	\$35.00	
SELECT ONE	NEW MEMBERS	\$45.00	
INTERNATIONAL MEMBERSHIP FEE (All addresses <u>outside</u> of USA)		\$15.00	
PRINTED NEWSLETTER FEE (Paper copy postal mailed instead of PDF file by e-mail)		\$10.00	
ADDITIONAL BADGES (Your first badge is <u>free</u> when joining)		\$15.00	
TOTAL PAID DUES plus International, Print or Badge Fees if Applicable:			

Please make check or money order payable to "American Opal Society". Mail payment and application to:

American Opal Society: PO Box 4875, Garden Grove, CA 92842-4875

An optional quicker method of payment is via the internet. To pay via PayPal, please visit the membership page on our website at http://opalsociety.org/aos_application_by_web.htm to complete the form and make your PayPal payment. You may pay with a credit card or via PayPal account. The transaction is completely secure and the AOS never sees your credit card number. The AOS PayPal account is membership@opalsociety.org.

NAME	
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ADDRESS	APT # or PO BOX
CITY	STATE
ZIP OR POSTAL CODE	COUNTRY (IF OUTSIDE USA)
PHONE - Home ()	PHONE - Business ()
E-MAIL	
WEBSITE	
OCCUPATION	HOBBIES and INTERESTS

NAME BADGE ORDER FORM:

PLEASE PRINT NAME AS YOU WISH IT TO APPEAR ON YOUR BADGE using up to two (2) lines of text for your name, nickname, or name of your opal related business.

MEMBERSHIP ROSTER: The AOS publishes a membership roster once per year in its newsletter, The Opal Express. Your name will be included. Please check what additional personal information you listed for other members. If it is different from the information above, please note that on the application.

☐ Address ☐ Phone-landline ☐ Phone-cell ☐ E-mail ☐ Website

Please sign here: _____

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-Editor
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Are Your Dues Due Now?

PLEASE CHECK YOUR ADDRESS LABEL OR NEWSLETTER E-MAIL.

There will be a date that shows the current month/year of your membership. If the date is older than the current date, your dues are overdue.

A Renewal Grace Period of two months will be provided. Please note, that as the system is set up, if your renewal is not received you will be AUTOMATICALLY dropped from membership thereafter. It is your responsibility to assure your dues are current.

Thank you.

The Editor

(revised 11/27/19)

The Opal Express

American Opal Society
P.O. Box 4875
Garden Grove, CA 92842-4875

Volume 53, Issue 5

— GENERAL MEETINGS —

4th Wednesday of the Month
7:00 p.m. - 9:00 p.m.

Anaheim Community Center
250 E. Center Street
Anaheim, CA 92805



TO:



**General Meeting for
May - TBD**



General Meeting Location at:

Anaheim Downtown Community Center

**250 E. Center Street
Anaheim, CA 92805**

Due to the uncertainty of the COVID-19 pandemic and Governor Newsom's stay-at-home mandate, we are cancelling Board Meetings and General Meetings. If we find that using Zoom is a feasible alternative for our meetings, we will let members know the details.

American Opal Society

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YouTube: https://www.youtube.com/channel/UCegTIH1IEyO7y8wdqvRfyUA?view_as=subscriber

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