

ROCK TALK

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**EXPLORE
DISCOVER
SHARE**

TUCSON GEM & MINERAL SOCIETY

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PRESIDENT'S PAGE

EXPLORE DISCOVER SHARE



Hello to you all,

Happy New Year to everyone. I hope you had a fantastic Holiday season.

As always, a New Year brings new hopes and new challenges to us all. I always like to look back and ask myself, where did last year go? Sometimes life moves so fast and sometimes it seems to drag, but either way it never stops.

I hope you had a chance to make it to the Mineral, Fossil, Jewelry, Art and Craft Sale, it was a good time to talk with others and great to finally bring it back.

I'm looking forward to our future General Meetings, to hear some great lectures and to see all of you in person. For me, I like to try and greet everyone I can before the meetings start, and catch up on all the different conversations we have.

The Club also has events on the website calendar, www.tgms.org, so take a look at all the field trips and activities that are coming up.

The great thing about a New Year means that the Show is coming. I hope everyone is ready. If you haven't signed up as a volunteer, PLEASE consider doing so. The Tucson Gem & Mineral Show® is the largest in the world and we depend on our volunteers. What an honor to be part of that. The other plus side of it is you get the behind-the-scenes access. I know for me personally volunteering on the floor gets me first look at the displays, and you get to meet some great Exhibitors. If you are interested, please contact the office.

Michael Hollonbeck
TGMS President



TGMS General Meeting – November 7, 2022

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Mike Hollonbeck at 7:11 p.m. The meeting was held both in person and via Zoom. The President welcomed new guests, in person and online attendees to the meeting.

ANNOUNCEMENTS:

Members can pick up publicity flyers and discount coupons for the 2023 Show. Members can post these on community bulletin boards.

Costly repairs are being made to the fence in the parking lot. Damages were caused by drivers backing into the parking spots. Members were advised to not back into the parking spots in front of the fence.

The Mineral, Fossil, Jewelry, Art and Craft Sale is scheduled for December 3rd. Members interested in participating can still request a table, as posted in the announcement sent to the membership.

Brad and Linda Ross will open JuROSSic Park to visitors for the month of December. Members and their friends and families are welcome to stop by and browse during daylight hours anytime in December. Members will be sent a notification after Thanksgiving with the address.

Members were encouraged to place their name in the basket for the door prize drawings. Mark Ascher will draw names at the end of the meeting.

PROGRAM: Mark Ascher introduced Dr. Jan Rasmussen. She presented the book “Mineralogy of Arizona, 4th Edition” that she recently co-authored. This book features 992 verified Arizona species. She reviewed the introduction of the book, the topics featured in each of the six chapters and the appendix. Chapter three documents Arizona minerals alphabetically, with a colored photograph and an in-depth description of each mineral.

BREAK: Cathie Logan assisted with serving snacks.

OLD BUSINESS:

Approval of the September 12, 2022, and October 3, 2022, General Meeting Minutes published in the November/December 2022 issue of Rock Talk: **MOTION:** To approve the September 12, 2022, General Meeting Minutes. Seconded and approved. **MOTION:** To approve the October 3, 2022, General Meeting Minutes. Seconded and approved.

Micromount Meeting: A Micromount meeting focusing on minerals that begin with the letter “E” will be held on Monday, November 14th at 6:30 p.m. An announcement has been sent to all members.

Educational Class: A class on “Common Minerals” will be held on Tuesday, November 15th at 6:30 p.m. An announcement has been sent to all members.

Field Trips: Kerry Towe updated the members on field trips planned for December, March, April, and May. A volunteer is needed to step up and help Kerry with future field trips.

Sign-Ups: Members can sign-up for events online, using the link in the announcements. Nonmembers can contact the office (phone or email) to sign-up for classes.

DRAWING FOR DOOR PRIZES: Mark Ascher conducted the drawing. Winners were John Ebner, Michael Kobezff, David Korzendorfer, Cathie Logan, Ed Madson, Christina Marikos, and Kerry Towe.

The meeting was adjourned at 8:39 p.m.

Respectfully submitted,

Linda Ross,
Recording Secretary



TGMS General Meeting - December 5, 2022

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Mike Hollonbeck at 7:00 p.m. The meeting was held both in person and via Zoom. The President welcomed new guests, in person and online attendees to the meeting.

ANNOUNCEMENTS:

A longtime member of TGMS, Tim Hicks, passed away on November 27th.

TGMS celebrated its 76th anniversary on December 3rd.

Special holiday prizes will be offered in the drawings tonight. Members were reminded to place their name in the Drawing Basket.

Costly repairs have been made to the fence in the parking lot caused by drivers who backed too far into the parking spots. Members were advised to not back into any of the parking spots from now on.

The Mineral, Fossil, Jewelry, Art and Craft Sale was fun and highly successful. Volunteers were thanked for working before and after the sale.

Brad and Linda Ross and Joy Wood almost have the Dinosaurs ready for the Holidays. An announcement with details will be sent to the membership this week.

Members can pick up publicity flyers and discount coupons for the 2023 Show. Members can post these on community bulletin boards.

A Micromount Meeting will be held December 12th at 6:30 p.m. We will be looking at micros starting with the letter "F." An announcement has been sent to members.

A Field Trip is scheduled for December 10th for Peridot in San Carlos. An announcement has been sent to the membership. Members can pay the fee when they sign up online. Limited to 25 members.

Members can sign-up for events online, using the link in the announcements. Nonmembers can contact the office (phone or email) to sign-up for classes.

The next TGMS meetings will be the 9th (due to New Year Holiday), and the 30th of January 2023, due to the TGMS Show.

PROGRAM: Mark Ascher introduced Dr. Art Friedman who presented Unusual Properties of Minerals – Part II – Physical and Chemical Tests. Dr. Friedman spoke about using properties such as magnetism, radioactivity, chemical, and physical (including smell, taste and feel) tests to identify minerals. He also explained unusual phenomena of minerals. Dr. Friedman answered questions from the audience.

BREAK: Ortrud Schuh assisted with setting up the tables serving the special holiday refreshments.

DRAWING FOR DOOR PRIZES: Mark Ascher conducted the drawing. Winners were Sara Alberts, Cathie Logan, Tim McClain, Wade Mullin, Bob O'Donnell, and David Smith.

The meeting was adjourned at 8:50 p.m.

Respectfully submitted,

Linda Ross,
Recording Secretary



2023 TGMS Show Committee



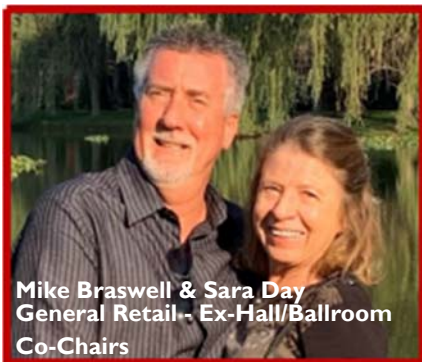
Peter Megaw - Show Co-Chair
Exhibits Chair
Special Projects



Kent Stauffer
Case Linings Chair



Ellen Alexander
Docent Chair
Show Treasurer



Mike Braswell & Sara Day
General Retail - Ex-Hall/Ballroom
Co-Chairs



Elaine Hughes & Robert Crowell
Case Assembly/Placement Co-Chairs



Ron Gibbs
Micromount
Room Chair



Connie Clark
Publishers &
Educational Exhibitors Chair



Alrene Hibben
Recording Secretary



Ortrud Schuh
Mineral Dealers Chair



Kate Yerbek & Herb Ross
Poster & Product Sales
Co-Chairs



Mark Ascher
Micromount Symposium
Chair



Linda Oliver
Floor Manager Chair
Special Projects

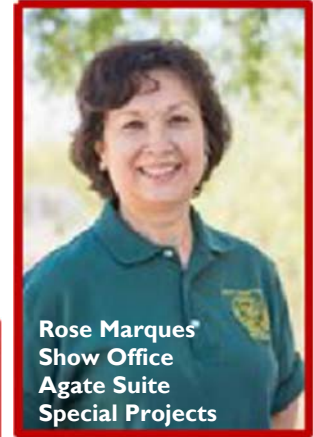
2023 TGMS Show Committee



Penny Savoie
Giveaway Booth Chair



Bear & Hollie Pitts
School Visits Co-Chairs



Rose Marques
Show Office
Agate Suite
Special Projects



Nancy & John Howard
Exhibitor Move-in/Move-out Co-Chairs



Kenny Don
TGMS
Official
Photographer



Bob O'Donnell
Publicity Co-Chair



Les Presmyk
Competitive Exhibits Chair
Poster/Special Projects



Mark Marikos
Show Co-Chair
Lectures Chair



Victoria Fila
Junior Education Chair

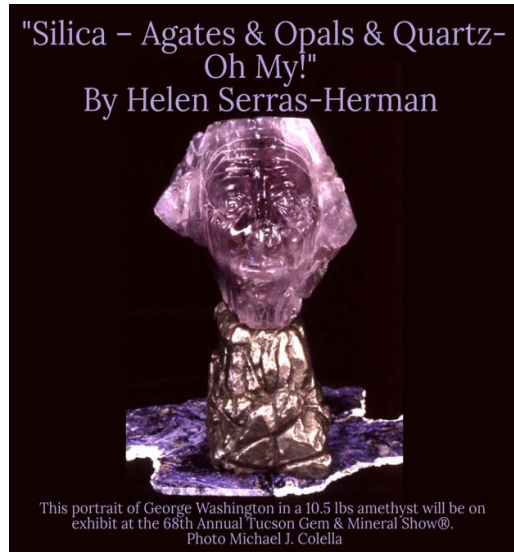


Dave & Barb Korzendorfer
Information Booth
Galleria/Ex-Hall
Co-Chairs



Pat McClain
TCC Liaison
Publicity Chair
Security Chair
Poster/Special Projects

“Silica - Agates & Opals & Quartz, Oh My!” By Hellen Serras-Herman



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This elaborate title **Silica – Agates & Opals & Quartz- Oh My!** is the theme for this year’s 68th Annual Tucson Gem & Mineral Show® sponsored by the Tucson Gem & Mineral Society. The show is held at the Tucson Convention Center, February 9-12, 2023. Lapidaries and collectors can find many agates, opals, and quartz specimens at that show, as well as spread throughout all the gem and mineral shows in the Tucson 2023 Showcase.



Huge drusy quartz specimen from Brazil on exhibit at Tucson, Photo Helen Serras-Herman

The title hints at the chemical composition of silica (SiO₂) binds quartz, agates, and opals together. Quartz is one of the largest mineral groups, with over 100 different varieties. Quartzes are among the most popular gem materials utilized by lapidaries and gem carvers worldwide. Their hardness, wide range of textures and color varieties, crystal sizes, durability, availability, and often affordability, make the quartz family of gemstones irresistible and most attractive.

Quartz

Quartz is divided into two main groups: *crystalline* and *crypto-crystalline* (crystals too small to be seen under the microscope). Crystalline varieties include rock crystal, amethyst, ametrine, and smoky quartz, where crystals are frequently well-defined with terminations, often occurring in clusters, and can range in size from thumb-size to mega-crystals. The crypto-crystalline varieties include the chalcedony group, agates, jaspers, flint and chert, and chalcedonic replacements, such as tiger eye or petrified wood.



Large rose quartz spheres on exhibit at Tucson, Photo Helen Serras-Herman

The hardness for all quartzes is 6.5-7.0 Mohs. Quartz is usually considered the benchmark that separates hard stones from soft ones. The crypto-crystalline varieties are somewhat lower in hardness than the crystalline varieties, but they gain in strength as the hidden, fine-grained structure of microscopic interlocking crystals makes these varieties more compact and tough. The hardness is high enough to allow for intricate carvings and engravings, high polish, and good wearability for jewelry pieces. The crypto-crystalline varieties commonly occur in veins, nodules, massive, and drusy or botryoidal crust formations.

Chalcedony varieties show fewer patterns than their “cousins” the agates and jaspers. They may show hue and tone variations within the primary color, but they are best known for their uniformity. Prominent chalcedonies include chrysoprase, cornelian, blue chalcedony, and gem silica.

Agate is a variety of crypto-crystalline quartz, usually exhibiting banded color formations, moss or dendritic

“Silica - Agates & Opals & Quartz, Oh My!” ... CONTINUED!



inclusions, zig-zag lace bands, and fire agate. Agates range in value from very inexpensive, which are often dyed to produce vivid colors, to very rare collector's specimens.

Agate and white drusy quartz, gem sculpture “The Visionary” by Helen Serras-Herman, Photo Michael J. Colella

We slabbed this complete agate nodule. It is now part of the Carnegie Museum of Natural History collection for education. Photo Helen Serras-Herman



Opals

Opals are another form of silica, but they differ from quartz because opals are non-crystalline silica with high water content, usually 3-20%. Opals have a different structure consisting of closely packed round spheres of silica of fairly regular size. Light reflects and refracts and causes interference and diffraction as it travels through the spheres. The different size spheres produce different colors.

This extraordinary 3.25-carat black opal, from Lightning Ridge, Australia, cut by Andrew Herman, displays chatoyancy in addition to play-of-color. Photo Helen Serras-Herman

Black and white opals are famous because they display the optical phenomenon, play-of-color. Boulder opals display the same seams of opal resting on or penetrating the ironstone matrix, and many

Mexican fire opals produce the same.

There are many opal varieties, qualities, and prices to match our aesthetics and budget. I love working with and showcasing unusual opals. I also find irresistible carving exotic common opals, which, for the most part, do not show play-of-color. Their striking body colors — neon blue, pink, purple, yellow, green, and bands and stripes — produce breathtaking scenic patterns. Varieties of exotic common opals include blue and pink Peruvian opal, ice-cream opal, Morado opal, bertrandite (Tiffany Stone), candy-stripe and Utah lace opal, dendritic opals, yellow, and many green opals. Customers find these exotic pieces alluring and fascinating.

“Silica - Agates & Opals & Quartz, Oh My!” ... CONTINUED!



Blue Peruvian opal is a beloved exotic common opal featured in these earrings. Photo Helen Serras-Herman

Lapidary Tips

There is a certain amount of heat sensitivity for all of the quartz materials during carving, sanding, and final polishing. That danger is somewhat reduced in the chalcedony varieties. There is little to no cleavage problem, however, directional and varying hardness within the material may be a problem in the polishing stage and may produce a rippled finish if not enough care has been taken

during the sanding stages. Natural fractures are common, and it is best to work around them or saw the material right down the fracture line.

Lapidaries and carvers often achieve stunning design combinations by taking advantage of color variations, dendritic inclusions, outside rind and matrix, and contrasting surface textures — smooth and drusy.

Ametrine quartz with its two bold colors is a favorite among carvers. This one is carved by David Christensen, Photo David Christensen

I am often asked whether there is a difference in carving opal compared to other colored stones. There are no fundamental differences in carving any gemstone. The lapidary steps are generally the same: grinding, sanding, more sanding, and final polishing. That being said, each material has a critical lapidary grit stage depending on the material's hardness and uniformity.

What makes capping and carving opals differ from other gemstones is that the precious opal bands are often hidden deep into the stone and must gradually be revealed. The color bands may also be very thin and vanish in a flash with aggressive grinding, therefore, a slower grinding approach of “grind and look, and look some more” is highly recommended. My husband, Andy, loved the “treasure hunt” segment of cutting opals — looking for and exposing the color bands.



68th Annual Tucson Gem & Mineral Show®

I hope you will not miss the 68th Annual Tucson Gem & Mineral Show®. Besides the over 250 fabulous dealers, stop by and enjoy all the amazing collections brought in by museums and private collectors as guest exhibits honoring the show's theme. My guest exhibit case will showcase my “**Gem Portraits in Quartz**”, and I will be present at my Gem Art Center/Helen Serras-Herman Booth #1601 in the Ex Hall.

Huge amethyst geodes are always Tucson's showstoppers. Photo Helen Serras-Herman



COVER PHOTO: This portrait of George Washington in a 10.5 lbs. amethyst will be on exhibit at the 68th Annual Tucson Gem & Mineral Show®. Photo Michael J. Colella

Helen Serras-Herman, a 2003 National Lapidary Hall of Fame inductee, is an acclaimed artist with 40 years of experience in unique gem sculpture and jewelry art. See her work at www.gemartcenter.com and her business Facebook page at Gem Art Center/Helen Serras-Herman



COVID DOESN'T HALT EVERYTHING BY ANNA DOMITROVIC

The onset of Covid-19 three years ago changed the way we did things, and continue to do so. The science fair, SARSEF, continued but virtually, and so, TGMS's judging went virtual as well.

We still recognized projects from K – 8th grades and awarded those recognized with our sought-after gift bags which included TGMS *stuff*, cash and an invitation to show projects at the next year's Show. Our 2022 awards went to five students. 1st grader Penelope Banks for "My Neighborhood Rocks"; 2nd grader Arya White for "Just Around the River Bend"; 5th grader Lilly Clauer for "Crystals and How They Are Formed"; and a pair of 7th graders, Aliza Jayani Alcoser and Madilyn Allison Stevens for "Geodes: How To Tell What Is Inside". Invitations to show their projects at the 2023 Show went out to all the students. Let's hope all will honor us with their presence at the 2023 Show in February.

There's an opportunity for someone out there to take over SARSEF judging for TGMS, as I will be stepping down after the 2023 Fair. I think 40 years of wearing this particular cap is enough. It's time to pass the torch. Of course, I'm always available to help but someone else should have just as much fun as I have had over the years.

“A great way to volunteer at the Show” From Herb Ross

Katie Verbeke and I are involved in running the Product Sales booth at the Show. What if I told you, you could enjoy meeting and talking with people from around the world wouldn't that interest you? And what if you could see the joy and happiness on peoples faces as they take with them one of our beautiful Mineral posters or a decorative designer T-shirt or a mug or a tote bag or any one of a number of items for sale at our booth. Then, we would like to invite you to volunteer to help at our "Product Sales" booth. You can choose between the four hr. morning shift or the four hr. afternoon shift on any one of four days, Feb 9 - Feb 12. As a volunteer you get free Show entrance and parking, plus you get to take home one of our designer T-shirts as a "Thank You!"

You should have already received in your email, the special Volunteer Form. Go to the section titled "Product Sales" and fill this out and send it back to the TGMS office as soon as possible! You are going to love it! Volunteering at the Show is a whole bunch of fun. Please call me with any of your questions: Herb Ross (520) 240-9924 or the TGMS Office at 520-322-577 and tgms@tgms.org.

2023 Tucson Gem and Mineral Show® - VOLUNTEER ONLINE

HOW TO SIGN UP: Use this link to sign up to volunteer: <https://show.hub.tgms.org/tgms-show-volunteer/> Click on that link, it will take you to a secure site where you will need a password to enter. That password is: **TGMS2023OhMy!**

When you enter the 2023 TGMS Show Volunteer form, fill out the appropriate fields and check the appropriate boxes for the area that you are interested in volunteering for. Couples who want to volunteer together in the same area(s), fill out one form. Couples who want to volunteer in different areas (and/or times), fill out two forms.

The individual Show Committee Chairs will be confirming with all of you the who, what, where and when.

If you can't sign up online, call the TGMS Office - 520-322-5773.

ROCK TALK

Encouraging the interest and study in geology, mineralogy, lapidary and allied earth science.

FROM:

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PURPOSE: To encourage interest and study in geology, mineralogy, lapidary, and allied earth sciences.

Meetings: Usually the first Monday of the month, starting at 7:00 p.m., except September (second Monday because of the Labor Day holiday), June-August (potlucks). The TGMS facility address is: 3727 East Blacklidge Drive, Tucson, Arizona 85716

The Tucson Gem and Mineral Show @:

The second full weekend in February, starting with Thursday.

Affiliations: American Federation of Mineralogical Societies, Inc. (AFMS), Rocky Mountain Federation of Mineralogical Societies (RMFMS), Visit Tucson, Tucson Metropolitan Chamber of Commerce (TMCC), Greater Oro Valley Chamber of Commerce

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