It's hard to believe it's been a year now, but it's been a good one. We have seen significant growth in membership, with a significant proportion of new members signing up through the website. Gloria Quigg and the rest of the Show Committee produced a fantastic Show in “Shades of Blue.” Particular thanks go to Paul Harter for stepping into the Mineral Dealer Chair position upon the sudden and tragic loss of Rick Trapp. Mike Hollonbeck brought us a variety of interesting and informative speakers for the monthly meetings. We had great food at several potlucks and the Christmas dinner. Once again Jo Anne Sam organized the December Sale. Kerry Towe and others led us on several great field trips, and several TGMS folks joined the Albuquerque club on a field trip to several New Mexico sites. And there was good fellowship at all of these events.

In addition to the ongoing activities, we did several new things this year. We rolled out the “Guaranteed Fresh for TGMS” program at this year’s Show, encouraging more dealers to hold specimens back for our show. We purchased 14 new “spotlight” cases with some of the best lighting anywhere (and they take significantly less storage space). We started a new tradition, with two “swaps/potlucks” this year – trading food and specimens. And we manned our first “Science City” booth at the Tucson Festival of Books on the UA campus in March, getting our name in front of several thousand people over the two days.

This past year we were able to provide scholarships to two deserving UA Geoscience students – grad student Anna Schuh and undergrad Vincent LeBlanc. This is a reminder to our membership that the Society has a line item for scholarships. If you know of anyone seeking funding for their education in the field of “Earth Sciences,” please contact the TGMS Office.

We are beginning to see younger folks and families at the meetings and many new members have become actively involved in field trips and other activities. We already have all of the summer potlucks scheduled, and are looking forward to resuming regular meetings in the fall. It’s been a good year.
We grieve the loss of Tom Corson and Rick Trapp, two longtime TGMS members that contributed much to the Society over their years with us. We will remember them fondly - they leave a legacy that will continue, in those they mentored and encouraged along the way.

I want to thank everyone who served in some volunteer capacity this year, with special thanks to the 2015-2016 TGMS Board members – Diane Braswell (Past President), Mike Hollonbeck (Vice President), Marilyn Reynolds (Recording Secretary), Ellen Alexander (Treasurer), Alrene Hibben, (Membership Secretary), Directors Sara Day, Dick Gottfried, and Jo Anne Sam, and Librarians Robert & Elaine Royer. You folks are top notch, and it was a pleasure working with you this year.

Last, but definitely not least, I thank our dedicated office staff, Pat McClain and Rose Marques. It is hard to imagine how we would function without your amazing organization skills, tireless effort, unflagging enthusiasm, and your patience with late letters (like this one?).

Let's all do it again (maybe even better) in 2016-2017!

Mark Marikos
President

THE TGMS NOMINATING COMMITTEE HAS SUBMITTED THE FOLLOWING NAMES FOR 2016-2017 TGMS OFFICERS & DIRECTORS; VOTING TO BE DONE AT THE MAY GENERAL MEETING:

<table>
<thead>
<tr>
<th>List of candidates for TGMS Officers:</th>
<th>Candidates for TGMS Directors</th>
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<tbody>
<tr>
<td>President: Mark Marikos</td>
<td>Mark Ascher</td>
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<tr>
<td>Vice President: Michael Hollonbeck</td>
<td>Sara Day</td>
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<td>Treasurer: Ellen Alexander</td>
<td>Ron Gibbs</td>
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<td>Recording Secty.: Marilyn Reynolds</td>
<td>Ortrud Schuh</td>
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<td>Membership Secty.: Alrene Hibben</td>
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SUMMER TGMS POTLUCKS!!! MARK YOUR CALENDARS!!!

JUNE 11, 2016 – AT 4:00 P.M. – HOSTED BY ORTRUD & WOLFRAM SCHUH
JULY 9, 2016 – AT 6 PM – HOSTED BY HENRY MILLER
AUGUST 6, 2016 – AT 5:30 P.M. – HOSTED BY DR. KAREN WENRICH
The General Meeting of the Tucson Gem and Mineral Society was called to order by President Mark Marikos at 7:30 p.m. Visitors and new members were recognized and welcomed to the meeting.

**PROGRAM:** Eric Fritz, FGA, DGA is the Manager of the Gemological Association of Great Britain (Gem-A) in North America. He presented “Emeralds (and other gemstones) of North Carolina.” North Carolina has all major gem and mineral types ranging from rubies and sapphires to even a diamond or two. The only classic birthstone not found there is peridot. The Hiddenite locality has some of the best emeralds in the world. It is named for William Earl Hidden who started mining there in 1881 at the Adams Mine. Along with George Frederick Kunz, the two men found 63 different gems and minerals in North Carolina. In 1907 Kunz wrote “Gemstones of North Carolina.” In addition to slides showing examples of the gems and minerals, Fritz brought some specimens for members to see including some featured in his presentation.

**BREAK:** Henry Miller provided an amazing assortment of delicious homemade muffins. Thank you, Henry.

**OLD BUSINESS:**

Science City March 12-13: Volunteers can still sign up to help. Specimens that show mineral properties are still needed. Mark Marikos will be sending out materials to volunteers later this week.

Field Trips: Don Cuson will lead a trip to Nuevo Corral March 12th. March 26th is the trip to Red Cloud Mine for wulfenite and to the Pure Potential Mine for vanadinite. There will be wulfenite for sale also. Do not show up at the Red Cloud Mine before 8:00 a.m. There is a $15.00 fee for this trip.

**NEW BUSINESS:**

Bill and Millie Schupp award was given to Jerry and Mary Glazman for their display at the TGMS Show titled “Limited Budget, Unlimited Pleasure.” Congratulations!

Educational Class: March 8th will be on “Show Finds” by instructor Bill Shelton. There is a sign-up sheet on the table.

Potlucks: Need a volunteer(s) to host the July potluck at home, TGMS or other venue.

2016 Agate Expo in Cedarburg, Wisconsin will be July 7-10.

**DRAWING FOR DOOR PRIZES:** Henry Miller, as meeting host, made the first choice. Drawing winners were Victoria Fila, Donna Pugh, Denis Menard, John Ebner, Chuck Stevenson, Betty Harris, Anna Schuh, Doris Simmons, Jeanne Kraus, Kathy O’Donnell and Christina Marikos. Heidi Wiesenfelde won the specimen donated by Eric Fritz which was emerald in quartz pegmatite with schorl and gneiss.

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

Respectfully submitted,

Marilyn Reynolds
Recording Secretary
TGMS General Meeting — April 4, 2016

The General Meeting of the Tucson Gem and Mineral Society was called to order by President Mark Marikos at 7:30 p.m. Visitors and new members were recognized and welcomed to the meeting. Members who wish to have a new membership badge please see Alrene Hibben.

PROGRAM: David P. Wilber, a mineral collector for 65 years and long-time member of TGMS, spoke on “The Mechanics of Mineral Collecting.” Dave believes mineral collecting is the best hobby in the world. Recently there have been a lot of changes with spectacular specimens coming out of Pakistan and China replacing the older “best of species” and driving prices up. Field collectors are bringing new material to the hobby. Dave stressed buy what you can afford or are willing to pay. All collectibles go up in price, including minerals. Supply and demand is good as it means more mining and types of specimens coming out. Go to meetings, museums, shows and talk to geologists and collectors. Share knowledge. He also noted that repaired minerals when very fine up to best are still valuable.

BREAK: Carol Johnston provided a variety of meat, cheese, grapes, jelly beans and cookies. Thank you, Carol.

OLD BUSINESS:

Science City, March 12-13, was very successful. Many interested people stopped which will hopefully result in some new TGMS members. Members volunteering had a great time.

Field Trips: Kerry Towe reported that 36 members went to Red Cloud on March 26th and found a wonderful variety of specimens. The April 9th trip to the San Carlos Reservation for peridot will require purchase of a $10.00 permit on site. Merritt Simmons announced members going on the April 23rd Buckskin Mountains trip are to meet at 8:00 a.m. in Bouse to proceed to collecting areas for hematite, quartz and epidote. Thanks to Merritt for bring samples to the meeting.

NEW BUSINESS:

Educational Class: April 5, 7:00-8:30 p.m. The topic will be “Collection Building”. Sign-up sheet is available.

Summer Potlucks: Hosts will be Henry Miller on June 11th at 6:00 p.m., Ortrud Schuh on July 9th, time to be determined, and Karen Wenrich on August 6th at 5:30 p.m.

OPLC meets the 2nd Saturday of the month and many TGMS members belong to OPLC also. It was stated that it would be nice to not schedule events at TGMS on that Saturday to make it easier for those members to attend both OPLC meetings and TGMS events.

House Bill to make wulfenite the Arizona State Mineral: Nothing new to report.

DRAWING FOR DOOR PRIZES: Carol Johnston, as meeting host, made the first choice. Drawing winners were Kerry Towe, Lesly Crawford, Charles Stevenson, Ron Gibbs, Bruce Kaufman, George Test, Jim Piper, Mary Jane Weaver, Kathy O’Donnell, Andy Herman, Marilyn Reynolds and Anita Nisonger.

REMINDER: Elections will be held at the May Meeting.

The meeting was adjourned at 9:10 p.m.

Respectfully submitted,

Marilyn Reynolds
Recording Secretary
TGMS Board Meeting — January 14, 2016

Present: Ellen Alexander, Diane Braswell, Sara Day, Dick Gottfried, Alrene Hibben, Mark Marikos, Marilyn Reynolds and Jo Anne Sam.

Absent: Michael Hollonbeck

Staff: Pat McClain

The Board Meeting was called to order by President Mark Marikos at 6:30 p.m. in the TGMS conference room.

Minutes Approval of the November 12, 2015 Board Meeting: Amended under New Business, Assignments “Pat will get a copy of the building title.” 

MOTION: To approve minutes as amended. Seconded and Approved.

Treasurer’s Report: None

Old Business: Review of Reports: Ellen discussed the Society summary of income, expenses, holding accounts and Show storage costs. The inventory of cases was reviewed and the volume of storage needed for each type of case. Pat noted what items can be removed/sold from inventory. Mark presented a cost analysis for utilities with Adobe Bridge Club and without. Storage options were briefly discussed including building storage in the back of the meeting room or a new structure at an estimated cost of $30,000 for a 30 ft. X 40 ft. structure. Alrene presented information on our R2 zoning and potential problems for expansion. Mark will take a plan to the City Department of Planning with alternatives and find out what is doable and what it will take for permits. Ideas are needed for funding the money lost from rent if Adobe Bridge Club’s lease is not renewed.

MOTION: That we give Adobe Bridge Club a 60 day notice before the lease expires on September 30th, contingent on our finding other funding to replace the $20,000 per year. Seconded Amended to eliminate the “60 day notice.” Seconded and not approved.

MOTION: That we not renew Adobe Bridge Club’s lease unless we reconsider 60 days prior to its expiration. Seconded and approved.

New Business: Regarding Show posters: 

MOTION: To set price at $35.00 signed/framed posters and at $15.00 for unframed posters for 2015 and back. Seconded and approved. 

MOTION: That we sell bulk posters that we want to get rid of in packages of 100 for $0.50 each. Seconded and approved.

Call to the Audience: No guests present.

Meeting was adjourned at 8:35 p.m.

Respectfully submitted by 

Marilyn V. Reynolds
Recording Secretary
Another Science Fair Success!

Well, the SARSEF organization switched things around on us this year. Rather than mid-March, the science fair and judging happened the first week in March, with judging on the 3rd and awards presentation on the 5th at 2 PM for K-5th grade and at 7 PM for middle and high school. But that didn’t deter our intrepid group of judges. Jeannette and Bob Barnes were new to the judging team this year. But return judges Elaine and Bob Royer served as coaches. It was “the girls” judging against “the boys” for the kindergarten through 5th grade projects, and your team leader (that’s me!) judging the middle school, 6th through 8th grades, projects. Longtime team participant, Janet Reue, couldn’t join us on judging day as it’s her docent day at the Desert Museum (the nerve!), but she did help on Saturday presenting our elementary school awards. Those of you who expressed an interest in SARSEF on your membership applications but didn’t make the cut this year, hang in there! I plan to give all of you a chance at participating in this community outreach event.

As for the winners … we went to a 6th grader for the middle school award. Asiel Carranza goes to Gallego Intermediate Fine Arts School. His project, “Measuring the Weight Resistance of Different Metals,” was more in the engineering category, but it got our attention anyway. Using different metal rods, each topped by a five gallon bucket, he added water to the bucket until the rod bent. He then compared how much water in weight was needed to bend each rod. Kelley Brooks-Cavaletto is Asiel’s teacher.

The elementary school project awards came from the 4th, 2nd and kindergarten grades. Our 4th grader was Daria Muratadleeva for her project, “Jumping for Geodes: Can You Tell the Inside from the Outside.” She started with ten golf ball-size, uncut geodes and attempted to predict the color and size of the internal crystals by studying the outside, then cracked them open to see if her hypotheses were correct. 70% right on the color, but only 30% on the size. Daria goes to Painted Sky Elementary where she is taught by Mrs. Ronnie.

Aviel Arellano, a 2nd grader at Casas Christian School where his teacher is Yvette Robinson, got our nod for his project, “Are These Rocks Thirsty?” He gathered...
examples of sedimentary, igneous and metamorphic rocks, and then determined how much water they would absorb when left to soak. He determined that granite was the least porous and highly recommended granite for countertops. Great advice, Aviel!

And finally, Dalton Grissom, a home schooler at the kindergarten level, received our award for his project, "Awesome Crystals." This was a crystal-growing experiment using some typical mediums, but the work that went into it and the execution of his displayed project couldn’t be overlooked by our judging team. Pictures even showed him wearing protective gear! Good for you, Dalton and congratulations to mother Kathy.
“Collection Building”  By Bill Shelton

Collections might seem to have a life of their own, but that is not the case for many of us. We have a plan of sorts that helps guide us when it comes to acquiring and managing samples in our cabinets. Exactly how can an individual proceed? What are some of the many decisions they may make to expand and mature their own collection?

This can be a very complex process; we may not be doing the same things as other collectors. Living here in Arizona, it is likely that you at least think about a suite of minerals from here – but do you also choose certain places; i.e. Bisbee and Ajo or places in a particular county like Pima? Maybe the selection process will involve a chemical context such as lead bearing species or perhaps secondary minerals (that will involve a chemical signature) and again you can limit the choices to certain areas. One can easily do a collection of unusual crystal forms or more or less common species from little-known localities.

Did you ever go to Mindat.org and just enter Bisbee or Ajo and see what pops up? Well, when I did there was a very brief list for “Bisbee” and prominently displayed we find 326 species and varieties and almost no other places were included. Ajo on the other hand will show pages of worldwide places that contain “ajo” anywhere in the name and among them is Ajo, Arizona with 127 species and varieties listed. In terms of worldwide localities, Bisbee ranks very high based on the number of noted species and varieties. As a collector, you may decide to try and get all the macro size species or only the rarer species found in selected localities. It is all about choices and what you determine you would like to do. As one can see, a collector might choose to build a collection of all the species that are found in both of these districts. There will be quite a few since the deposits are somewhat alike and azurite is famous from both as an example.

We found 286 valid species for Bisbee and 100 for Ajo – also there are 6 type minerals for Bisbee and 2 type minerals for Ajo. One can see where this may lead – type collecting has always been a part of our hobby. Besides, you only need to get 8 specimens. You may already see that it is a trap of sorts since that will be easier said than done. Add a few type species from other places and you are on your way to a new collection or perhaps a new sub collection. How many places have odd or unusual quartz crystals here? That can be a topic to investigate and perhaps you will add it to the growing collection you are creating. I bet you will have a lot more than eight samples if you choose to do this!

As for me, I seem to have this penchant for former Soviet Union minerals and that is a lot of area and species to cover, but it does focus me away from collecting everything. Among the many items, I have a small suite of odd eudialyte group minerals and seem to think it is a good idea to get more of them if they ever come available. I also feel a need to get as many different Dalnegorsk minerals as possible in macro specimens and with hopefully decent crystals present – as you see, I must be picking and choosing, but then you get to omit things you really don’t care to have anyway. But the disease is never cured since I must have twenty or more beryls form the Urals and so on and so forth. So, why so many beryls you may ask? Well, I like them, and why not if they please me? After all, you make up the rules for what will be in your collection and then follow or change them to suit yourself.

The number of pieces you may have can be an issue. It has been said that some collectors add one and get rid of one so they keep the same number of species in the collection. Well, I seem to add but not get rid of much and think a lot of you do the same thing. After all, the best collections are in museums and heaven knows how many they may have. Well, actually I do know – the American Museum of Natural History has about 100,000 minerals according to their website – it seems to me like a lot more may be there. They also claim 3,700 gems and actually have 5,000 minerals on display. So, we now know that it is imperative to go to New York and see all 5,000 of them for ourselves. According to data from the internet, the Smithsonian in Washington, D.C. has 413,616 records (for
specimens) and has 560 type mineral specimens. The Sorbonne in France has 13,000 samples with 1500 on display. The University of Manchester (Manchester Museum) states that they have some 17,000 specimens of meteorites, gemstones, ore samples and rare minerals. I also found the British Museum claims to have 80 million specimens including minerals and much more.

Did you realize that a great many pieces came from private collectors in the past? Even today, we see collectors sometimes choose to donate their pieces to museums. So there is another thing you can think about doing at some point. If you ask a museum, they might tell you what they want and then you can work together to achieve a goal. They will probably like to have all the type material and a full set from Bisbee will no doubt be of interest too. As a cautionary note, museums do reject donations when the specimens are not sufficiently good to achieve their purposes. You should plan ahead if you have a notion of donating away your collection at some time in the future. With a good plan, you help build their collection just as you have built your own.

All the Way from Connecticut to Arizona - For Minerals!!! - By Diane Braswell

A couple of months ago a correspondence was received at our TGMS Office from a lady in Connecticut asking for assistance in helping her eight year old daughter Hannah, an avid rock hound, enhance her Tucson visit by recommending "dig sites." This information was referred to me to try to assist her in making this visit a positive experience. All the "dig sites" I could think of were either closed to the public, dangerous (snakes, heat, rough terrain) or only 4-wheel drive accessible. So with the help of Pat McClain, we came up with a plan. I created a collection of Arizona, New Mexico and California minerals in our traditional egg carton and Pat made a "goodie bag" including a T-shirt, coloring book/crayons and “A Quest for Shiny Purple Crystal” storybook. Merritt Simmons also contributed some very colorful Moroccan specimens. Hannah was also given a couple of passes to the Desert museum so she could explore their Geology exhibit and little "dig site."

I met with Hannah, her Mom Becky and Grandmother Nancy, at Purple Heart Park to give her all the gifts from TGMS. She was so excited with everything I brought and they were all so complementary of our willingness to help out a little girl who loves rocks and encourage her in her hobby.

Thank you all so much for your donations and encouragement in making this kind of thing possible. This is our future, we must not let it slip away.
ROCK TALK

FROM:
T.G.M.S.
P.O. BOX 42588
TUCSON, ARIZONA  85733

TO:

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

Meetings:  Usually the first Monday of the month, starting at 7:30 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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ROCK TALK Editor: P. R. McClain
ROCK TALK Assistant Editor: R. Marques
ROCK TALK Reporters/Contributors: Mark Ascher, Anna Domitrovic, Peter Megaw, Diane Braswell, Keny Towe, Donn Cuson, Helen Serras-Herman, Paul Harter, Ellen Alexander, Gloria Quigg, Bill Shehlton

Website:  www.tgms.org
Facebook:  Tucson Gem and Mineral Society
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