

# CRACK 'N CAB

Gem & Mineral Society of Syracuse, PO Box 2801, Syracuse, NY  
web <http://www.gmss.us> Volume 47 Issue 1 January 2017



PRI Winter  
Free Days  
Second  
Sundays  
during Winter  
2017 (Jan 8,  
Feb 12, Mar  
12) from 10am  
to 5pm  
Free  
Admission for  
all visitors

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Submit  
questions,  
requests, news,  
pictures,  
suggestions or  
volunteer to  
help the club  
Hospitality  
Committee. Send  
email or tell us  
at the next Club  
meeting

## January 16 General Meeting

"Dynamic Earth - Drifting Continents, Mountain Building and Changing Seas" Our Speaker, Rick Moore, will discuss the movement of the North America land mass in the last 600 million years using the latest Paleo-Geographic maps. The effects these changes on the geology of New York will be part of the talk.

## Lapidary Stones: Microcrystalline Quartz By Shannon Phillips



From Left to Right

**Thunder Egg Agate** - Donated by Rock Doc and cut at the picnic. To me, the translucent agate looks like a beach under the sun breaking through clouds

**Wonderstone** - There's some debate about whether wonderstone is jasper or rhyolite

**Jasper Cabochon** - This is my first cab, made from a large block that was given to me by a friend who bought a house from a retired lapidist. I also got the wonderstone from her



**Dendritic Agate** - I'm looking forward to cutting and polishing this piece to reveal more of the plumed inclusions

**Hunters Valley Jasper** - I picked this piece up for a dollar at GemWorld in 2015

As many club members know, our Junior Rockhounds work toward badges from the American Federation of Mineralogical Societies. At our January meeting we will be working on one requirement for the lapidary badge: learning about lapidary stones. Most of our Juniors are not very familiar with lapidary stones. Admittedly, I am no expert myself. Because I need to know enough to teach kids, I started researching types of quartz, the most plentiful family of lapidary stones.

Most people think of macrocrystalline formations, clusters of visibly terminated crystals, when they think of quartz. What most of us do not think of, however, is the microcrystalline variety of quartz called chalcedony. Microcrystalline, also called cryptocrystalline, quartz is made of compact crystals that are not visible without the use of a microscope. Chalcedony itself is recognized as a gemstone and agate and jasper are types of chalcedony and popular lapidary stones. After examining some specimens I gathered to share with the Junior Rockhounds, I began to wonder what differentiates agate from jasper.

Both stones are formed as a secondary process in volcanic rocks and, less frequently, can also be found in sedimentary rocks. Jasper occasionally occurs in igneous rocks. Agate is considered a mineral, but Jasper, which can contain up to 20% material other than quartz, is classified as a rock because the impurities that give it its color and opacity change the chemical composition.

The primary difference between jasper and agate is diaphaneity, or how easily light passes through the stone. Agate is characterized by bands of translucent or transparent color in either concentric or horizontal formations. Concentric bands are created when agate lines the cavities left by air bubbles in rapidly cooling volcanic rock. Silica-rich precipitate covers the inside of the cavity, depositing concentric rings of varying color. Sometimes, there is a space in the middle where macrocrystalline quartz or calcite forms. This formation is, of course, known as a geode. The most exceptional geodes are beautiful not only as a result of their crystalline centers, but also because the translucence of the agate gives the surrounding stone a sense of depth. Concentric and horizontal bands of agate are both popular for making cabochons. Other patterns, such as plumes (dendritic agate) and moss (moss agate, which really is chalcedony) are also desirable. Unlike agate, jasper is opaque as the result of the impurities it contains. Although jasper can appear translucent in thin slices, the size of a gem-grade stone renders it opaque. Jasper is formed when silicates and non-silicate material are fused in the cooling process of crystallization. There are dozens of types, most named for the locale or the appearance of the pattern on the stone. Jasper occurs in many colors, primarily reds, browns, and yellows. Highly-patterned jasper is often formed when jasper is fractured as the result of tectonic movement and later filled in with chalcedony.

Many varieties, like picture jasper and ocean jasper, are valued for their patterns. The stone can be found worldwide, and there are at least seven states in the USA with a city named Jasper. Most jasper found in the US is located west of the Rocky Mountains; one of the largest jasper fields in the world is Petrified Forest National Park in Arizona.

Because microcrystalline quartz comes in many colors, polishes to a high shine, and is very hard, it makes excellent jewelry. Slabs can be purchased relatively inexpensively for those who enjoy making cabochons. While some types of agate and jasper command high prices, in general, finished jewelry is very affordable. Agate slices are often sold at gem shows because of the attractive patterns they display. High water content makes agate easy to dye, and buyers should be aware that although agate comes in many lovely colors, hot pink, teal, and bright green are not among them.

When I attended the lapidary class with John Sweeney, I made my first cabochon from jasper that was given to me by a friend. It was easy to work with and polished to a brilliant shine. I recently purchased a chunk of dendritic agate I look forward to working with. Until I get back to the lapidary wheel, I am satisfied to work with fancy jasper and mookaite beads. Because the Junior Rockhounds will be focused on lapidary projects using beads and softer stones they can shape themselves, they won't get to work agate or jasper just yet. I'm sure that won't stop them from enjoying the colors textures and shapes of these two popular stones.

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### President's Message



**Mark Grasmeyer**  
**President**  
**January 2016**

Happy New Year..  
I hope you all had a great Holiday Season.  
This week we started to plan some great  
programs for 2017. It's hard to believe the  
first committee meeting for GemWorld 2017  
is this month. As always the meetings are  
open to all club members. We will be asking  
folks to join the fun and pitch in one or more  
of the show "teams". Our January General  
Meeting will feature a presentation by our  
own rockhound, Rick Moore. At that meeting  
we will be signing up club members, friends  
or family for this year's field trip to the  
Albany Gem and Mineral Show. The trip will  
happen on Saturday, February 18<sup>th</sup> The bus  
will leave the Shoppingtown, DeWitt parking  
lot at 8 am sharp. The adult price is \$35 per  
person with a reduced price for kids. While  
we are on the subject of money please send  
your 2017 membership dues so you will  
continue to receive our Crack 'N Cab  
newsletter.

**For Updated Event List  
see <http://gmss.us> for more info.  
Event Cancellations will be  
announced on Cable 10 and  
Broadcast 9.1**

**Let us know any events that would  
like us to add to our events listings  
here and on our web page.**

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**Jan 21 – Jr Rockhounds meet at the  
Clubhouse 10-1. Activity to be determined.**

**Feb 18 & 19 - 10 AM to 5 PM, NY State  
Museum Show & Sale, New York State  
Museum. Feb 18 GMSS Bus Trip - Adults  
\$35, Children fee TBA.**

**Mar 25-26 Buffalo Geological Mineral &  
Fossil Show - Fairgrounds, Hamburg, NY  
<http://bgsny.org/>**

**2017 Penn Dixie Events – Blasdell, New  
York  
[http://bgsny.org/category/upcoming-  
events/penn-dixie-events-for-2017/](http://bgsny.org/category/upcoming-events/penn-dixie-events-for-2017/)**

**MON May 22–SUN May 27, 2017  
Spring 2017 EFMLS Workshop at Wildacres  
Speaker-in-Residence - Bob Jones**

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**Send us your suggestions for field  
trips and meeting speakers! Contact  
Harold Jones at [vp@gmss.us](mailto:vp@gmss.us) or talk  
to him at any Club Meeting.**

**GemWorld2017  
Planning meetings will be starting  
soon. If you are not able to attend  
send any questions you may have to  
Dick Lyons  
email – [show@gmss.us](mailto:show@gmss.us)**



# Gem & Mineral Society of Syracuse

P.O. Box 2801

Syracuse, New York 13220

First Class Mail

Jan 2017

Time Dated Material



**Crack 'N Cab**  
**Newsletter of Gem & Mineral Society**  
**Syracuse, NY**  
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### Club Officers 2016-2017

- President  
Mark Grasmeyer 317-1350 [pres@gmss.us](mailto:pres@gmss.us)
- Vice-President  
Harold Jones [yp@gmss.us](mailto:yp@gmss.us)
- Jr Rockhounds  
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- Club Library  
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Cathy Patterson 480-8907 [sunshine@gmss.us](mailto:sunshine@gmss.us)
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Dan Andrianos 492-6437 [editorgmss@gmail.com](mailto:editorgmss@gmail.com)
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Judy Cook, Steve Albro
- Hospitality Committee Chair  
Donna Dow

Eight people organized the Gem and Mineral Society of Syracuse in 1951. Since that time it has grown in membership to include adults, families, and young folk. The Society was incorporated in 1969 under the same name.

The objectives of the Society are to stimulate interest in mineralogy, paleontology, and the lapidary arts. Member interests include collecting, identification, and display of minerals, gems, fossils. Members share and develop their artistic skills in jewelry design and creation.

Our monthly meetings provide social and educational experiences. Field trips give collectors chances to find specimens and enjoy the outdoors, exercise and time with old and new friends.

General Meeting 3<sup>rd</sup> Monday of the month (NOT in July, August, December) at 7:30 PM in the Clubhouse (Shoppingtown Mall on the 2<sup>nd</sup> floor near Sears).

**Visitors are ALWAYS welcome!**

**You can also visit our facebook and flickr pages.**

#### **Annual member dues:**

**Adult \$10 • Family/Couple \$15 • Junior \$5 • Life \$5**

If you would like to join or renew your membership, download the application form (PDF), go to <http://gmss.us/about/membershipform.pdf> or get a form at a meeting or send request to the address at the top of this page and we will US mail an application/renewal form to you.