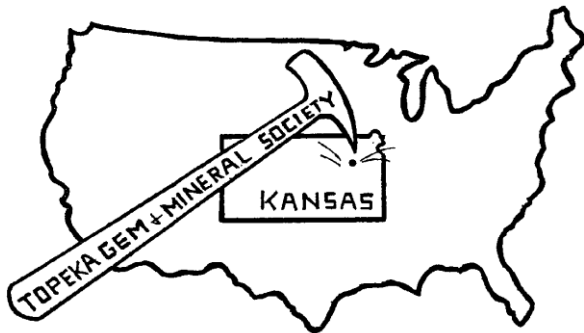


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# THE GLACIAL DRIFTER



[www.topekagemandmineral.org](http://www.topekagemandmineral.org)  
 Facebook: Topeka Gem and Mineral Society Field Trip

The Topeka Gem & Mineral Society, Inc.  
 Organized December 3, 1948

Member of Rocky Mountain Federation of  
 Mineralogical Societies American Federation of  
 Mineralogical Societies



The Glacial Drifter, Vol. 59, No. 04, Apr 2016

The Purpose of the Topeka Gem & Mineral Society shall be exclusively educational and scientific: (1) to promote interest in geology and the lapidary arts; (2) to encourage the collection and display of rocks, gems, and minerals; (3) to encourage field trips and excursions of a geological, or lapidary nature; and (4) to encourage greater public interest and education in gems and minerals, cooperating with the established institutions in such matters.

Meetings: 4<sup>th</sup> Friday of each month, September to May, 7:30 pm, Stoffer Science Hall, Room 138, Washburn University.  
 No meeting in December unless notified of a change. Picnic meetings are held June, July and August.

Dues: Individual, \$15.00; Couple, \$20.00; Junior (under 18 years of age), \$5.00. Dues are collected in December for the following year. Send dues to: **Millie Mowry, Treasurer, 1934 SW 30<sup>th</sup> St, Topeka, KS 66611.**

## 2015 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 <sup>st</sup> Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Larry Henderson	-----
2 <sup>nd</sup> Vice Pres.	Carolyn Brady	233-8305	Publicity	Donna Stockton	913-645-7677
Secretary	Cinda Kunkler	286-1790	Welcome/Registration	Jason Schulz	379-5538
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	379-5538
Directors	Harold Merrifield	286-3548	AFMS Scholarship	Cinda Kunkler	286-1790
	Chuck Curtis	286-1790	Editor/Exchange Editor	Millie Mowry	267-2849
	May Springer	286-0742	Show Chairman	Harold Merrifield	286-3548
Historian	Deborah Scanland	273-3034	Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Harold Merrifield	286-3548	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Larry Henderson	-----
Librarian	open	-----	Show Case Coordinator	Francis Stockton	913-645-7677
Web Master	Jason Schulz	379-5538			

Area Code for all numbers is (785).

### EXCHANGE BULLETINS WELCOME

For exchange newsletters contact the club via mailing address listed above or email at [rock2plate@aol.com](mailto:rock2plate@aol.com) .  
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.



### Minutes of the Topeka Gem and Mineral Society –

March minutes will appear in next months Drifter/



### Words From Mike

I don't have much to say except, I'm going to try to get my plumber to fix the pipes in the barn so we can get classes going. This month's program will be presented by Professor Matthew Brueseke, from Kansas State University. He will surprise us with a topic to talk about, so I hope that those who are not planning on going to Wichita to their show will attend. Millie said that if anyone is interested in wire wrapping on Thursday afternoon from 1 -3 pm she has an opening, so contact her if you are interested. Once the barn is open there will also be a Tuesday night class on wire wrapping.

President Mike and his Rock Stash!



### Words of the V-P

I am looking forward to classes starting up soon. Waiting to hear from Mike on when the plumbing needs are taken care of then we can start up classes and have a start date for everyone. Anyone who goes to a show please get me dealer info so we can get more dealers! Look forward to seeing everyone at the regular meeting! Dave-



**Cave of the Crystals** or **Giant Crystal Cave** is a cave connected to the Naica Mine 300 metres (980 ft) below the surface in Naica, Chihuahua, Mexico. In 1910 miners discovered a cavern beneath the Naica mine workings, the Cave of Swords. It is located at a depth of 120 m, above the Cave of Crystals, and contains spectacular, smaller crystals. Giant Crystal Cave was discovered in 2000 by miners excavating a new tunnel for the Industrias Peñoles mining company located in Naica, Mexico while drilling through the Naica fault, which they were concerned would flood the mine. The Cave of Crystals is a horseshoe-shaped cavity in limestone. Its floor is covered with perfectly faceted crystalline blocks. Huge crystal beams jut out from both the blocks and the floor. The caves are accessible today because the mining company's pumping operations keep them clear of water. The crystals deteriorate in air, so the Naica Project is attempting to visually document the crystals before they deteriorate further. The main chamber contains giant selenite crystals), some of the largest natural crystals ever found. The cave's largest crystal found to date is 12 m (39 ft) in length, 4 m (13 ft) in diameter and 55 tons in weight. The cave is extremely hot, with air temperatures reaching up to 136 °F with 90 to 99 percent humidity. The cave is relatively unexplored due to these factors. Without proper protection, people can only endure approximately ten minutes of exposure at a time. The crystals in the Cave of the Crystals in Mexico can reach sizes larger than houses, by far the largest such crystals known on the planet. They apparently grow at very slow rates, gypsum formations that take as long as a million years to reach more than two stories tall.  
Reference: [https://en.wikipedia.org/wiki/Cave\\_of\\_the\\_Crystals](https://en.wikipedia.org/wiki/Cave_of_the_Crystals) and <http://www.livescience.com/31471-weirdest-geological-formations.html>

In Memory of  
Iona V. Faulk  
1913 - 2016



Iona Vivian Faulk

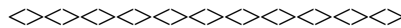
Iona Vivian Faulk, 102, Topeka, Kansas, died Wednesday, March 16, 2016, at Lexington Park Assisted Living, Topeka. She was born December 24, 1913, the daughter of Irl Peffer and Edna Pearl (Ballinger) Faulk.

She had attended public schools at Rock Creek in Jefferson County and was a graduate of Washburn University. After many years of service she retired from the Santa Fe Railway's General Offices. Iona was a member of the First United Methodist Church and the Topeka Geological Society.

Iona was preceded in death by a dear friend, Ruth V. Rosvall. Iona and Ruth were members of Theta Chapter of Sigma Alpha Iota Professional Music Fraternity. Together they established a Sigma Alpha Iota Scholarship Fund to assist students at Washburn University.

Funeral services will be at 1:00 PM, Monday, March 21, 2016, at the First United Methodist Church's Klasse Chapel. Interment will be in Rochester Cemetery. Visitation will be from 12:00 noon to 1:00 PM, Monday, at Klasse Chapel.

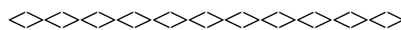
Memorial contributions may be made to the First United Methodist Church, 600 SW Topeka Blvd., Topeka, KS 66603 or the Capper Foundation, 3500 SW Tenth Avenue, Topeka, KS 66604.



## Publicity News

Publicity Committee met this past Tuesday to see where everyone was with their sponsors. We have toothbrushes in hand from one dental group. We have letters going to several places. Dave reported that he has 10 vendors signed up for the show and paid for. He suggested that we really sell our billboards to the sponsors and try to have \$1700.00 in hand toward the cost of the billboards by May 1. We have verbal agreement for some help from Envista Credit Union and we have much further to go. It is very heartening that we have so much participation in helping to get sponsors and vendors for our 60th show. We still encourage all who have an interest or who have previous experience dealing with Sponsorships to join us in helping TGMS to offer a bigger and better 60th show, to come to our next meeting at St. Peters United Methodist Church, at new HYW. 75 and 35th St., on April 29, 2016. Please come and join us at 6:30 pm.

Donna Stockton



*We still need Best Choice UPS Labels!*

## Field Trip Calendar

An up-to-date Calendar can be found on the Topeka Gem and Mineral Society Website:

<http://topekagemandmineral.org/calendar.html>

Public Facebook Page:

<http://www.facebook.com/pages/Topeka-Gem-and-Mineral-Society-Field-Trips/92795058262>

Trips dates are tentative and subject to additions and change. E-mail LHenderson85@gmail.com if you have an interest in any of these trips

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### Additional Show Dates:

- April 22-24, 2016 Wichita, KS, RMFMS Convention & Show Cessna Activity Center 2744 George Washington Blvd., Fri 9-6, Sat 10-6, Sun 10-5.
- May 6-8, 2016 McPherson Gem & Mineral Sal & Swap, 4-H Fairgrounds 710 W. Woodside Email Mcphersongemmineral@hotmail.com 620-755-5415 or 620-241-7600
- Sep 23-25 Tri-State Gem & Mineral, Free Admission, joplinmuseum.org@sbcglobal.net or 417-623-1180

For additional listings of gem shows see  
[www.rockngem.com](http://www.rockngem.com)

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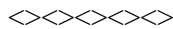
### Fossil Special Interest Group

The first and third Tuesday night at 7:00 p.m. at Baker's Dozen, 4310 SW 21st St, Topeka, KS.  
We will discuss fossils and other collections.

**April 19, 7:00 p.m.      May 3, 7:00 p.m.**

Come join us with show and tell.

**Junior Rockhounds can get help on their collections.**



## TOPEKA JUNIOR ROCKHOUNDS

Facebook: <http://www.facebook.com/TopekaJuniorRockhounds>  
To register for the Junior Rockhounds or any of the classes, email  
Leslie Hartman at: **Hartman.12345@hotmail.com**

Classes start at 6:30 pm at the Town & Country Christian Church, 4925 SW 29th Street. The Topeka Junior Rockhound Junior Rockhounds are encouraged to attend the club meetings to receive Patches and Badges. Youth must be accompanied by a parent or guardian to all events.

**The advisors meeting** has been changed to the last Thursday of the month. Next meeting: April 28, 2016, Perkins Restaurant, 6:30 PM.



Website of the month:

A Online Field Guide to Fossils

<http://www.digitalatlasofancientlife.org/>



**Junior Rockhound - New Class Schedule 2016**

\*\*

The May 5<sup>th</sup> class will be on "Maps".  
by Jason Shultz

**Junior Rockhound Activity Center**

General Meeting - Stoffer Science Hall - Washburn  
University 7:00 PM  
April 22, 2016

**Junior Rockhounds are encouraged to attend with vests and or exhibits.**

**News**

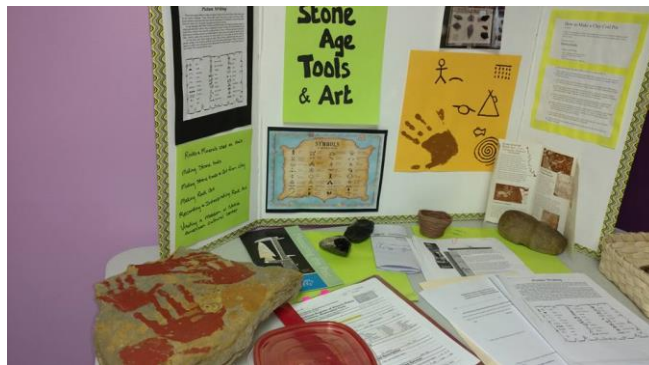
- ❖ Rocky Mountain Federation Convention, April 22-24, 2016, Wichita, Kansas  
Juniors from Topeka should be thinking about having a Junior exhibit at the convention.
- ❖ A new policy was adopted by the Advisory Board: We will accept worksheets as proof of completion of activity and eligibility for the badge. Preferably, the lead instructor for that badge will sign off on that activity. The same instructor is responsible for the proper documentation of evidence of completion of that activity, within the guidelines of the American Federation of Mineralogical Societies.



**Jr Rockhounds getting ready for their activity**



**Junior Rockhounds and their patches—Way to GO!!!**



7 Attended Stone Age & Art class in April

More pictures at <https://www.facebook.com/TopekaJuniorRockhounds/>

Please like and leave comments on the page.



## Bench Tips by

### Brad

#### GRIPPING SMALL DRILLS

Drilling small holes can be a problem. With drills that are less than 1 mm (18 gauge or .040 inches), some chucks will not tighten down well enough to hold the drill securely.

The problem is easily solved in either of two ways - with a chuck adapter or by buying your small drills with a 3/32 inch shank size. Either way you have a large shank to be gripped in your drill press, Foredom or Dremel, so changing bits is fast and easy.



#### PRE-MADE BEZEL CUPS

As a general rule of thumb I assume it's going to take me 15 - 20 minutes to make a bezel for an ordinary cabochon, so for some projects buying pre-made cups can save a lot of time. But if you go this route, keep in mind three things. First, try to get cups made from fine silver, not sterling. Fine silver is softer and burnishes over the stone more easily.



Second, you may have trouble matching the shape and size of the stone with the shape and size of the bezel cup. Purchased cups can only be found in a limited number of standard sizes. You may have to adjust your choice of gemstone to match the cup. The other consideration is that pre-made cups often have fairly low side walls. While these are fine for low-dome stones, they're not dependable for stones with steep side walls.

Lastly before setting, check the fit of your gemstone in the cup, particularly around the bottom. The bottom corners of a stamped cup are much more rounded than a bezel you would fabricate yourself. This causes a problem with stones that have a sharp edge around the bottom. Burnishing the bezel over one of these stones will place a lot of stress on the stone and may cause it to crack. To avoid this, I round off the bottom edge of the stone with a diamond file (or use sandpaper on soft stones).

"Bench Tips for Jewelry Making" and "Broom Casting for Creative Jewelry" are available on Amazon



# Polar Bear Tubes

The cooler is shown with a false bottom to keep your fish from laying in a pool of water or blood while you are out fishing, especially should you purchase additional ice. The modification includes a strap for keeping your cooler safely closed while in transient without the lid blowing open. The setup includes Polar Bear tubes made from 2 inch PVC pipe with standard end caps cut to fit your freezer space available to freeze the tubes. Safety strap of 2 inch webbing with quick release buckle

using screws to attach to cooler.

First measure your freezer space to see what is the maximum length your tubes can be and see what your maximum cooler length is so you can custom fit your Polar Bear tubes. Make Polar Bear tubes from 2 inch PVC pipe available at your local hardware store. Includes a 20 foot 2 inch PVC pipe end fittings and PVC glue. When assembling, fill with water but not full (88% maximum) as you will need a buffer space for expansion so you won't bust the Polar Bear tube when freezing. Keep everything clean in case you need these Polar Bear tubes as an emergency water supply. Glue end cap on one end of Polar Bear tubes and let it setup for a hour. Fill with water to 88% and glue on other end cap. Keep it vertical so that cap can set without being in the water. I made 6 Polar Bear tubes for my big cooler that are 21 inches each. Make as many Polar Bear tubes you like.



False bottom to prevent fish laying in blood, or water should you add addition ice.



False bottom made by attaching 2 pieces of 3/4 inch PVC pipe to a plastic sheet. Custom fit to cooler bottom. Wood not recommended.

Polar Bear tubes. These are 21 inches as that the maximum length that my garage side by side refrigerator/freezer will take. Hopefully yours may match your cooler length. Ok lets go catch some fish.



Polar Bear tubes. Custom fitted for the lunch cooler box.

This article appeared on FaceBook with an author. Recommended for fish, but would keep things cold without getting wet from the melting ice. The Glacial Drifter Editor.



## Educational Corner

### Definition of the Month

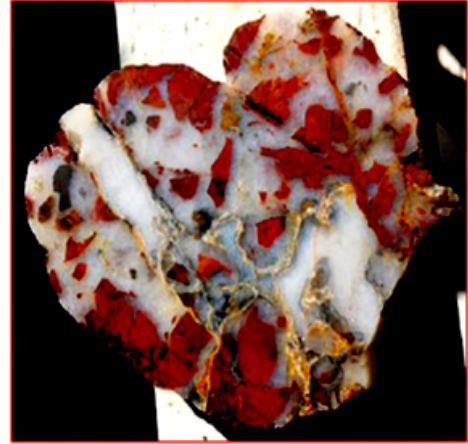
**Breccia** is a rock composed of broken fragments of minerals or rock cemented together by a fine-grained matrix that can be similar to or different from the composition of the fragments. The word has its origins in the Italian language, in which it means either “loose gravel” or “stone made by cemented gravel”. A breccia may have a variety of different origins, as indicated by the named types including sedimentary breccia, tectonic breccia, igneous breccia, impact breccia, and hydrothermal breccia.

Breccia forms where broken, angular fragments of rock or mineral debris accumulate. One possible location for breccia formation is at the base of an outcrop where mechanical weathering debris accumulates. Another would be in stream deposits near the outcrop such as an alluvial fan. Some breccias form as debris flow deposits. The angular particle shape reveals that they have not been transported very far (transport wears the sharp points and edges of angular particles into rounded shapes). After deposition the fragments are bound together by a mineral cement or by a matrix of smaller particles that fills the spaces between the fragments.

Breccia and conglomerate are very similar rocks. They are both clastic sedimentary rocks composed of particles larger than two millimeters in diameter. The difference is in the shape of the large particles. In breccia the large particles are angular in shape but in conglomerate the particles are rounded. This reveals a difference in how far the particles were transported. Near the outcrop where the fragments were produced by mechanical weathering the shape is angular. However, during transport by water away from the outcrop the sharp points and edges of those angular fragments are rounded. The rounded particles would form a conglomerate.

Sources: Wikipedia, Geology.com. Article submitted by Angela Brown. Photo by Angela Brown of jasper & quartz breccia from Ventura beach.

Via Rockhound Rambling 2/16; The Clackamette Gem March 2016



Red jasper & quartz breccia.

### Putnisite: New Mineral Discovered in Australia by [Natali Anderson Sci-News.com](#)

A multinational group of scientists led by Dr Peter Elliott of South Australian Museum and the University of Adelaide has described a new mineral from the Polar Bear peninsula, Southern Lake Cowan, Australia.  
credit: P. Elliott et al.

The new mineral is named putnisite after Drs Christine and Andrew Putnis from the University of Münster, Germany, for their outstanding contributions to mineralogy. Putnisite occurs as isolated pseudocubic crystals, up to 0.5 mm in diameter, and is associated with quartz and a near amorphous Cr silicate.

It is translucent, with a pink streak and vitreous lustre. It is brittle and shows one excellent and two good cleavages parallel to {100}, {010} and {001}.

“What defines a mineral is its chemistry and crystallography. By x-raying a single crystal of mineral you are able to determine its crystal structure and this, in conjunction with chemical analysis, tells you everything you need to know about the mineral,” explained Dr Elliott, who, along with colleagues, described [putnisite in the Mineralogical Magazine](#).

“Most minerals belong to a family or small group of related minerals, or if they aren’t related to other minerals they often are to a synthetic compound – but putnisite is completely unique and unrelated to anything.”

Putnisite combines the elements strontium, calcium, chromium, sulfur, carbon, oxygen and hydrogen:

$\text{SrCa}_4\text{Cr}_8$

$3+(\text{CO}_3)_8\text{SO}_4(\text{OH})_{16}\cdot 25\text{H}_2\text{O}$

The mineral has a Mohs hardness of 1.5–2, a measured density of 2.20 g/cm<sup>3</sup> and a calculated density of 2.23

g/cm<sup>3</sup>. It was discovered during prospecting by a mining company in Western Australia.

“Nature seems to be far cleverer at dreaming up new chemicals than any researcher in a laboratory,” Dr Elliott concluded.

Source: Rocky Reader–July 2014

