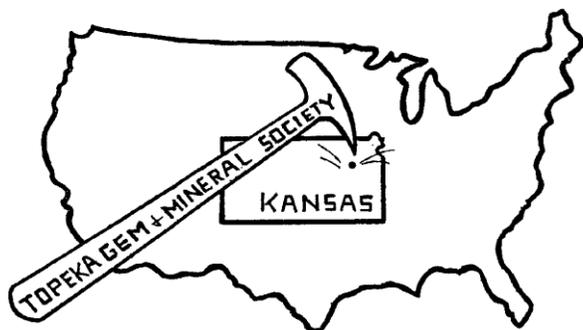


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# 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. 57, No. 03, Mar. 2014

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.**

## 2014 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		
Secretary	Cinda Kunkler	286-1790	Welcome/Registration	Jason Schulz	379-5538
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	379-5538
Directors	George Reed	836-9277	AFMS Scholarship	Cinda Kunkler	286-1790
	Harold Merrifield	286-3548	Editor/Exchange Editor	Millie Mowry	267-2849
	Chuck Curtis	286-1790	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	Lucy Hrenchir	267-3325			
Web Master	Jason Schulz	379-5538			

Area Code for all numbers is (785).





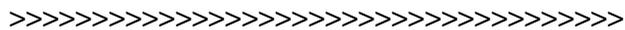


Obsidian can be found in locations which have experienced rhyolitic eruptions. It can be found in Argentina, Armenia, Azerbaijan, Canada, Chile, Georgia, Greece, El Salvador, Guatemala, Iceland, Japan, Kenya, Mexico, New Zealand, Peru, Scotland, Turkey and the United States. Obsidian flows which may be hiked on are found within the calderas of Newberry Volcano and Medicine Lake Volcano in the Cascade Range of western North America, and at Inyo Craters east of the Sierra Nevada in California. Yellowstone National Park has a mountainside containing obsidian located between Mammoth Hot Springs and the Norris Geyser Basin, and deposits can be found in many other western U.S. states including Arizona, Colorado, New Mexico, Texas, Utah, Washington, Oregon and Idaho. Obsidian can also be found in the eastern U.S. states of Virginia, as well as Pennsylvania.

Though not approved by the US Food and Drug Administration (FDA) for use on humans, obsidian is used by some surgeons for scalpel blades, as well-crafted obsidian blades have a cutting edge many times sharper than high-quality steel surgical scalpels, the cutting edge of the blade being only about 3 nanometers thick. Even the sharpest metal knife has a jagged, irregular blade when viewed under a strong enough microscope; when examined even under an electron microscope an obsidian blade is still smooth and even. One study found that obsidian incisions produced fewer inflammatory cells and less granulation tissue at 7 days, in a group of rats. Don Crabtree produced obsidian blades for surgery and other purposes, and has written articles on the subject. Obsidian scalpels may currently be purchased for surgical use on research animals.

Obsidian is also used for ornamental purposes and as a gemstone. It possesses the property of presenting a different appearance according to the manner in which it is cut: when cut in one direction it is jet black; in another it is glistening gray. "Apache tears" are small rounded obsidian nuggets embedded within a grayish-white perlite matrix.

Pig carved in snowflake obsidian, 10 centimeters (4 in) long. The markings are spherulites.



## HOW TO CUT FIRE AGATE

From: Gem Cutters News, February 1996; The Rock Rustler's News Jan 2012

The "fire" in fire agate is actually a very thin layer of limonite. When obtaining fire agate, look for thick brown areas because that's where the fire is. If there is white under a thick layer of brown, the piece is not good; however, if white is on top and the brown underneath, there's a good chance of fire. If you grind too deeply, there will probably be more fire under the layer you ground away. It's easy to grind or sand through fire, so carefully orient the fire. Look for the tops of bubbles on the top of the stone. The bottom of the stone should be the area where it was attached to the host rock.

Once you have oriented the fire and the top has been determined, carefully grind away colorless or white agate to expose the fire. When the excess material has been ground away and the fire exposed, establish the base and perimeter of the fire. The base should be parallel to the top of the cab.

After size and shape have been established, work the same as any stone except that fire agate is very heat sensitive. Use lots of water, grind a little and look a lot. You can polish with cerium, tin or chrome oxide or diamond.



**WE NEED BEST CHOICE UPC LABELS**

## Topeka Junior Rockhounds

The Junior Rockhounds members have definitely been busy. Over the last few months the following badges have been earned and are being requested from the American Federation of Mineralogical Societies. The class that was taught this month was on Fluorescent Minerals by Will Gilliland. The Topeka Rockhounds also worked at the 2014 Cub Scout Late Nighter. Members Brad Davenport, Jason Schulz, Carolyn Brady, Larry Henderson, Thomas Schulz, and Robert Schulz presented a class on Rocks, rotating through Boy Scout groups every half hour from 1pm to 10pm on Saturday March 8 at Washburn's Lee Arena. Wonderful Job was done by all!

Thomas and Robert Schulz have completed 3 activities for each of the following patches: Collecting, Showmanship, Leadership, Earth in Space, and Rocking on the Computer.



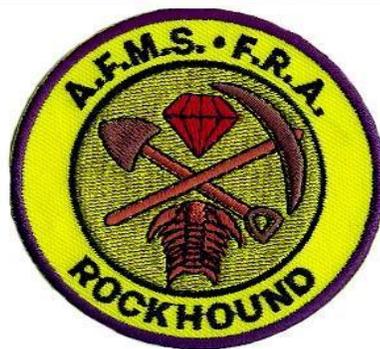
Ian Schulz has also completed 3 activities for Collecting and Earth in Space.

Activities such as: collecting specimens on field trips, creating a display, competing in the Gem Show, learning how to research safely on the computer, and making the presentation to the Topeka Gem and Mineral Society meeting are just a few of the ways these patches were earned.

In order to earn the next Badge in Junior Rockhounds, 6 patches must be earned. This goal has been met by Thomas, Robert, and Ian Schulz. Their names are being sent in to receive the Rockhound Badge. Their names will also be added to the FRA Rockhounds: An Honor Roll web page located at: [http://www.amfed.org/fra/honor\\_roll.htm](http://www.amfed.org/fra/honor_roll.htm) . They will join two other Kansas Rockhounds with this distinction.

The next goal is to complete all 20 activities to earn their Rock Star in and to be listed on the Rock Star Web Page.

Remember Rockhounds: will be presented at the Topeka they are received from AFMS.



patches and badges that have been earned Gem & Mineral monthly meeting when

Next month Junior Rockhound Christian Church at 6:30 pm on April 3. The classes will be on either Earth in Space or Maps.

meeting will be at the Town & Country

Shirley Schulz, Secretary

Facebook: <http://www.facebook.com/TopekaJuniorRockhounds>

**WE NEED BEST CHOICE UPC LABELS**

### Boy Scout event at Lee Arena March 8, 2014



Carolyn B.



Brad D.



## Fossils

Fossils (from Latin fossus, literally "having been dug up") are the preserved remains or traces of animals, plants, and other organisms from the remote past. The totality of fossils, both discovered and undiscovered, and their placement in fossiliferous (fossil-containing) rock formations and sedimentary layers (strata) is known as the fossil record. The study of fossils across geological time, how they were formed, and the evolutionary relationships between taxa (phylogeny) are some of the most important functions of the science of paleontology.

Such a preserved specimen is called a "fossil" if it is older than some minimum age, most often the arbitrary date of 10,000 years ago.

Hence, fossils range in age from the youngest at the start of the Holocene Epoch to the oldest from the Archaean Eon several billion years old. The observations that certain fossils were associated with certain rock strata led early geologists to recognize a geological timescale in the 19th century. The development of radiometric dating techniques in the early 20th century allowed geologists to determine the numerical or "absolute" age of the various strata and thereby the included fossils.

Like extant organisms, fossils vary in size from microscopic, such as single bacterial cells only one micrometer in diameter, to gigantic, such as dinosaurs and trees many meters long and weighing many tons. A fossil normally preserves only a portion of the deceased organism, usually that portion that was partially mineralized during life, such as the bones and teeth of vertebrates, or the chitinous or calcareous exoskeletons of invertebrates. Preservation of soft tissues is rare in the fossil record. Fossils may also consist of the marks left behind by the organism while it was alive, such as the footprint or feces (coprolites) of a reptile. These types of fossil are called trace fossils (or ichnofossils), as opposed to body fossils.

(Source: <http://en.wikipedia.org/wiki/Fossil>)



