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

THE GLACIAL DRIFTER

www.TopekaGMS or
Facebook: Topeka Gem and Mineral Society Field Trips

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. 61, No. 7, Jul., 2018

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: 4th 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 30th St, Topeka, KS 66611.**

www.TopekaGMS.org

2018 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1st Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Will Gilliland	286-0905
2nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	TGMS Board	
Secretary	Lettie Thomas	409-7026	Welcome/Registration	Russ & Rhonda Miller	272-6408
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
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	Brad Davenport	379-8700	Editor/Exchange Editor	Millie Mowry	267-2849
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Historian	Jessica Reedy	230-3445	Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Harold Merrifield	633-9745	Show Secretary	Cinda Kunkler	286-1790
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Librarian	Millie Mowry	267-2849	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Jason Schulz	640-6617			

Area Code for all numbers is (785).

EXCHANGE BULLETINS WELCOME

Words from Our Top Rock!

By the time you get this Drifter, I will have had my knee surgery. I will let everyone know when lessons will start up again at the Barn. I understand that Millie will have the wire wrap class on Tuesday nights at her house while the Barn is closed, so if you are interested contact her. Enjoy their summer and we look forward to seeing everyone at the picnics! Don't be late as we eat at 6:30 p.m. Stay cool and safe.

Mike C. & Dave D.

New Member

Matthew S. Filby

There is room at the bottom of page 3 for these new members-corrections—if you have a correction, please notify me so I can make the changes. Millie

PICNICS -- JULY, & AUGUST

At Millie's house: 1934 SW 30th St, Topeka
6:30 P.M.

Bring your favorite picnic food to share & your plates, silverware & a cup or glass to drink out of. Ice Tea and Coffee will be furnished.

We eat inside where it is cool or you can eat out on the patio.

Directions: From the east, 29th Street is under construction- so continue to 29th & Boswell, turn left for 2 blocks, turn right for 4 houses. From the west, pass Brookwood Shopping Center to MacVicar, turn right 2 blocks to 30th St, turn left and find my house. From I-470 take exit #5 Burlingame Rd. north. Follow it to 30th St, turn left about 4 blocks to my house.

FOOD FELLOWSHIP FUN

TGMS Event Calendar

July 2018

1S	
2M	
3T	**NO LESSONS AT THE BARN IN JULY**
4W	
5T	
6F	
7S	
8S	
9M	
10T	
11W	
12T	
13F	
14S	
15S	
16M	
17T	**NO LESSONS AT THE BARN IN JULY** Wire Wrap Class @ Millie 6-9 P.M.
18W	
19T	Wire Wrap Class @ Millie 1-3 p.m.
20F	
21S	
22S	
23M	
24T	**NO LESSONS AT THE BARN IN JULY** Wire Wrap Class @ Millie 6-9 P.M.
25W	
26T	NO Wire Wrap Class @ Millie Shawnee CO Fair 9:45AM-5PM
27F	Shawnee CO Fair 9:45AM-5PM CLUB PICNIC 6:30 PM @ MILLIE'S
28S	Shawnee CO Fair 9:45AM-5PM
29S	Shawnee CO Fair 9:45AM-5PM
30M	
31T	**NO LESSONS AT THE BARN IN JULY** Wire Wrap Class @ Millie 6-9 P.M.

If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

Aug 2018

1W	
2T	JR RHD'S – Marvin Auditorium Rm 101C ROCKS, Brad Davenport Wire Wrap Class @ Millie's 1-3 p.m.
3F	
4S	
5S	
6M	
7T	Wire Wrap Class @ Millie 6-9 P.M.
8W	
9T	Wire Wrap Class @ Millie 1-3 p.m.
10F	
11S	
12S	
13M	
14T	Wire Wrap Class @ Millie 6-9 P.M.
15W	
16T	Wire Wrap Class @ Millie 1-3 p.m.
17F	
18S	
19S	
20M	
21T	Wire Wrap Class @ Millie 6-9 P.M.
22W	
23T	Wire Wrap Class @ Millie 1-3 p.m.
24F	Club Picnic 6:30 pm @ Millie's
25S	
26S	
27M	
28T	Wire Wrap Class @ Millie 6-9 P.M.
29W	
30T	Wire Wrap Class @ Millie 1-3 p.m.
31F	

Check out the calendar on our web site
www.TopekaGMS.org

If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com

https://www.facebook.com/TopekaGMSJuniorRockhounds
To register for the Junior Rockhounds or any of the classes, email:
Jason Schulz at: Fleetcommander@att.net

JR ROCKHOUND Classes & Reminders

Here are reminders of the next 3 months of classes: Topeka Shawnee CO Public Library sign in starting at 6:00pm and classes starting at 6:30pm. 1st Thursday of each month… **PLEASE watch for a new email for the new updated classrooms, classes, and instructors schedule starting with December 2017 to November 2018.**

- August 2nd Brad Davenport, Rocks, Rm 101C Marvin Auditorium
- September 6th Will Gilliland, Gold Panning & Prospecting, Marvin Auditorium 101A. There will be a field trip planned for later on.
- October 4th Class Orientation—all Instructors Marvin Auditorium 101A

Some of the Rockhounds were given notebooks for the Communication Patch. If you have written your story for the article in the Drifter, bring it in so that it can be counted, then published in the next Drifter. For those who do not have the note books, see Millie and she will give you one.

From the Coordinator, for July, 2018

The class on Minerals, led by Brad Davenport was found to be very interesting by the attending Junior Rockhounds and their parents. The next class is on Rocks on August 2nd with Brad Davenport as the instructor, at the Library. Sign-in begins at 6pm, and class starts at 6:30 pm. We'll be in Marvin Auditorium 101C. Bring your rock collections in your boxes that you have made in Barbara's class even if they are not identified and we will try to help you identify them.

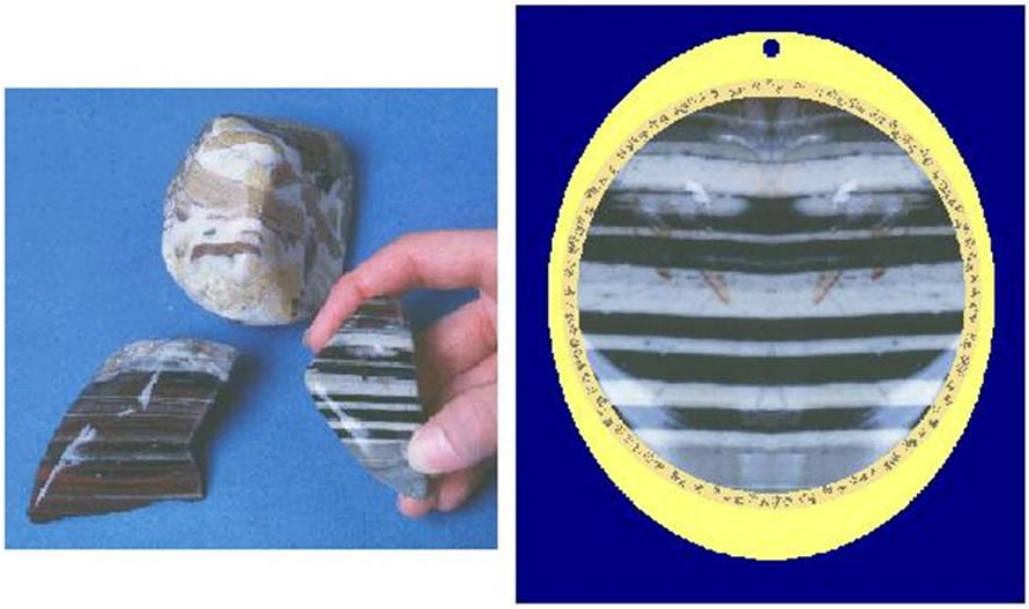
Jason Schulz

We need your **BEST CHOICE UPC Labels** --- Bring them to the monthly meeting,
And give them to Cinda Kunkler

Shawnee County Fair

Again this year we as a Club and the Junior Rockhounds are having a booth at the Shawnee County Fair from July 26 – 29th. We need help manning the booth. It is not hard, all you do is talk to people about the club and had out brochures. We would like to see more of the Junior Rockhounds take part in this also. You do not have to stay all day, but would like to set up shifts of 2 to 3 hour at a time. We will be in the Kansas Expocentre, 1 Expocentre Dr, where it is air conditioned, from 10 a.m. to maybe 6 p.m. (I will check on the times). Sign–up sheets will be at the June picnic, then, we will be calling you.

Rhyolite



A. Rhyolite. Two lower specimens are silicified rhyolites "Wonderstone") from an unknown locality (thumb and fingers give scale). Anna Jonas Stose collection. The top specimen is silicified breccia, *not* rhyolite, the dark fragments of which are epidote-rich algal-like masses (see Dietrich and Chyi, 1995). R.V. Dietrich collection. (© *photo by Dick Dietrich*)
B. Rhyolite. Silicified rhyolite (diameter - 6.5 cm) from unknown locality. This illustration is a computer-generated mock up showing how the banded rhyolite (lower right piece in "A") could be used to fashion a book-match pendant. (© *photo by Dick Dietrich*)
D ESCRIPTION: Rhyolite is the aphanitic equivalent of granite -- *i.e.*, rhyolite has the same general composition as granite but the individual grains of rhyolite are so small they cannot be distinguished by the naked eye or even with the aid of a hand lens. Many rhyolites, however, contain macroscopic phenocrysts, and some rhyolites also have natural glass as a constituent.
Color (*i.e.*, the overall color of rhyolites *per se* and of the ground masses of rhyolite porphyries) -- light gray, pink, yellowish, cream, mauve, tan to medium brown, light to brick-red; mottled or banded patterns are relatively common.

(continued on next page)

H. (effective hardness) > 5, typically 6 - 7

S.G. ~ 2.65

Miscellany -Rhyolites that exhibit certain kinds of flow banding and/or contain spherulites are the ones used most frequently as gem rocks. Many rhyolites are porphyritic with quartz and salmon-colored K-feldspar plus or minus white to off-white sodium-rich plagioclase as the most common phenocrysts; identification of the minerals that occur as phenocrysts in aphanite porphyries is the method used by most geologists to name hand-specimens of chiefly aphanitic rocks in the field. In the absence of phenocrysts, the overall color is often utilized, but noted with prudent disclaimers.
OTHER NAMES: Rhyolite, with the ellipsis replaced by a geographic designator plus or minus an adjective describing its color or some quality such as its being porphyritic is the way many chiefly rhyolite masses are named to in the geologic literature and on geologic maps. Two examples are the Mule Mountain Rhyolite of southwestern New Mexico and the Balaklala Rhyolite of Klamath Mountains province of California.
A few names given rhyolites that have been used as gemrocks follow:

- **Birdseye** - name given to some spherulitic rhyolites.
- **Elixerite** - local name for rhyolite wonderstone from the vicinity of Truth or Consequences, Sierra County, New Mexico.
- **Hickoryite** - rhyolite, some of which resembles rhyolite wonderstone, from near Rodeo, State of Durango, Mexico .
- **Liparite** - synonym applied to rhyolite, particularly in the past in Europe, especially in Germany and Russia.
- **Mushroom rhyolite** - cabochons, beads, pendants have been marketed widely as as mushroom rhyolite, which is said to have been metamor-phosed. It is said to come from Arizona. I have seen only photographs of the so-named material, which indicate that the pattern exhibited by the polished surfaces resemble mushrooms, but provide nothing that I could see that would indicate it to be rhyolite. Correspondance about it has furnished no pertinent data.
- **Wonderstone** (sometimes referred to with geographical or other adjectives such as *Nevada Wonderstone*) - a thinly banded rock, commonly -- albeit with exceptions -- rhyolite. The banding involves one or more of the following colors: off-white, reddish brown, orangeish yellow, yellow-brown, purplish brown, medium brown, and dark gray to nearly black. Unfortunately, this term is also applied rather frequently in the market-place to banded jasper and banded sandstone that have been used as gem rocks.

USES: Jewelry -- especially that including fairly large stones; diverse ornaments.
OCCURRENCES: Most rhyolite occurs as lava flows. Several origins have been suggested to account for the banding of rhyolites designated *wonderstone. A*ny serious consideration of those suggestions is far too long and involved include here; for those who wish to delve further into this subject, one possibly fruitful start would be to look up *Liesegang banding* in geological and chemical data bases.
NOTEWORTHY LOCALITY: Much so-called gem quality rhyolite comes from Australia. A well-known United States locality is near Truth and Consequences, Sierra County, New Mexico.
REMARKS: The name rhyolite, from the Greek word *ρύαξ* (stream) -- *ergo*, streaming rock -- was apparently given in allusion to the flow banding that is so characteristic of much of this rock. This name was first applied in the literature in 1860 by Baron Ferdinand von Richthofen, grandfather of the (in)famous World War I pilot, Manfred von Richthofen, the "Red Baron." Today, rhyolite is used rather widely as the first term of binomial rock names -- *e.g.*, rhyolite porphyry, rhyolite breccia and rhyolite tuff -- as well as a freestanding noun for rocks of this composition be they banded or not.
The already mentioned synonym liparite has also had widespread use, especially in Europe. It was Introduced in 1861 by Professor Justus Roth of the University of Berlin for occurrences in the Lipari Islands, off Italy. The fact that the term rhyolite was introduced a year before liparite gives it priority so it is generally thought the term liparite should be abandoned. However, a slight quirk so far as abandoning the term liparite has been mentioned**:** Theophrastus used the term Λιπαραος (liparaios) for stones from the Lipari Islands that were very likely at least a variety of this rock. (see Johannsen, 1932, v.II, p.265).
The term rhyolite always comes to my mind whenever I think of confusion related to names of rocks. This is so because I have found it virtually impossible not to think of the following description: “Rainforest Jasper is a beautiful, opaque pastel semi-precious gemstone, displaying hues of green with occasional clear spots. Referred to as Rhyolite by Geologists, Rainforest Jasper is really a Granite that has cooled relatively quickly." (www.luckygemstones.com) -- Wow!!!
All sorts of problems and ambiguities attend usage of the term *Wonderstone.* Indeed, diverse applications of the term comprise a nomenclature nightmare. Not only has the name been applied to some so-called scenic sandstone -- see SANDSTONE entry -- but also to a jasperized calcareous breccia from the Eagle Peak area of Sierra County, New Mexico. In addition, I suspect that some similar jasperoid of the same general region, which has been given the local name Candy rock (Rouse, 1963.), would be considered a wonderstone, at least by connoisseurs of rock candy, eh(?).

(continued on next page)

The cliff dwellings that are one of the areas of particular interest in Bandelier National Monument in north central New Mexico are in rhyolite tuff. These cave-like dwellings, some of which have been dated back to the mid 12th century, were occupied by the Anasazi (ancestral Puebloans). Some of them are only slightly altered natural cavities; others were enlarged by carving into this relatively soft rock.

SIMULANTS: None that I have seen or seen described.

REFERENCES: No general reference.

(http://stoneplus.cst.cmich.edu, via The Beacon 3/18: via: WGMS Rockhounder 7/18)

Alabaster, selenite, and gypsum: Why so confusing?

Gypsum alabaster from West Texas.

Those of us from Oklahoma have been in caves with gypsum stalagtites and stalagmites, some of them from a place called "Alabaster", and have dug for selenite in a great salt plain. To a chemist, all of these things are calcium sulfate, so why can't everyone use the same name!? I will try to make everything clear.

Gypsum is the most common "catch-all" phrase for calcium sulfate. It is a common evaporite mineral found in dry lake beds and caves. Nearly all of the cave formations in the US are formed from gypsum. Chemically Gypsum is hydrated calcium sulfate, anhydrous calcium sulfate is named anhydrite, although exposing it to water again will change it back to gypsum.

Alabaster has been carved into statues and vessels since ancient Egypt and the origins of it's name may be equally as ancient. An archeologist will recognize alabaster as two distinct "rocks", both very fine-grained materials suitable for carving. The ancient Egyptians carved calcite alabaster (not gypsum at all), while Greek and roman statues were typically carved from gypsum alabaster. Geologists are adamant that only gypsum alabaster is truly alabaster... (picture below is a hunk of gypsum alabaster I picked up in the Texas pan-handle).

Selenite is any crystalline form of gypsum. Examples include gypsum flowers, crystalline cave formations, gypsum hourglasses, and even fully transparent selenite crystals (example shown below).

Gypsum alabaster from West Texas.

Transluscent selenite crystal from New Mexico.
Pictures by Ken Smith.

(Source: Rockologist April 2018)

Visitors are always WELCOME at our meetings!

SAGENITE IN JASPER

"To him who in the love of Nature holds communion with her visible forms, she speaks a various language." These are the first lines of William C. Bryant's Thanatopsis.

As a rockhound, I enjoy seeing these special visible forms showing in my rocks and, in the past several months, I found sagenite in Bruneau jasper and in Hart Mountain jasper.

Sagenite is a sometime thing in agate, but almost never shows in jasper. I have a nice scene showing in my Bruneau, a winter moon rising off the shoulder of Mt. Hood. But my cab had these annoying little needles radiating from the bottom. (See Fig. 2) I did not see at first what I did not expect. Sagenite! And my Hart Mountain slab showed a double sagenite spray, like a dandelion puff-ball, showing classic sagenite fans. Subsequently, my newly calibrated vision let me see that both a Morrisonite cab (See Fig. 2) and a Vistaite cab displayed sagenite.

In my experience there are several kinds of sagenite. There is the mossy, straw-like display as found in McDermitt material and in some Mexican agate and Nipomo agate. There is the fan-like presentation often seen in Oregon beach agates, acicular in form. And finally, there is quartz pseudomorph after aragonite, resembling a cluster of radiating tubes. The term "totally tubular" comes to mind, a term that I first heard some forty years ago and which I don't know now nor did I know then what it means. Likely it is an expression of surprise and approval and delight.

Fig. 1 **BRUNEAU WITH PLUME** **MORRISONITE WITH PLUME**

Plume in jasper. Totally tubular.

BRUNEAU WITH SAGENITE **MORRISONITE WITH SAGENITE**

Sagenite in jasper. Totally tubular.

(Source: **"THE CLACKAMETTE GEM" 1/2015)**