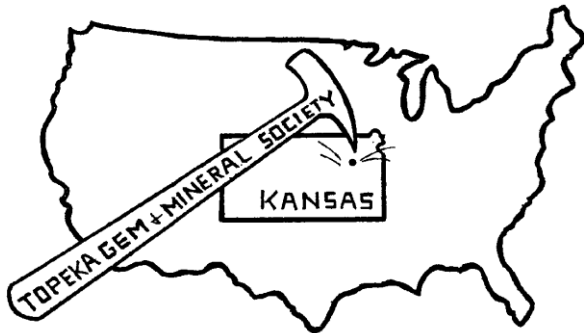


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# THE GLACIAL DRIFTER



[www.TopekaGMS.org](http://www.TopekaGMS.org) 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. 63, No. 7,  
 July 2020



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.**

[www.TopekaGMS.org](http://www.TopekaGMS.org)

## 2020 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 <sup>st</sup> Vice Pres.	Will Gilliland	286-0905	Field Trip Coord.	Will Gilliland	286-0905
2 <sup>nd</sup> Vice Pres.	Cinda Kunkler	286-1790	Publicity	TGMS Board	
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
Directors	Chuck Curtis	286-1790	AFMS Scholarship	Cinda Kunkler	286-1790
	Francis Stockton	913-645-7677	Editor/Exchange Editor	Millie Mowry	267-2849
	George Reed	836-9277	Show Chairman	Millie Mowry	267-2849
Historian	Open		Show Dealer Chairman	Millie Mowry	267-2849
Federation Rep	Harold Merrifield	633-9745	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Jason Schulz	640-6617
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

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.

## Words from Our President

Greetings Rockers

Yet another month has passed us by and seemingly little has changed towards any resemblance of normality. I am having a problem staying upbeat about much.

As you should be aware by now, we have canceled our show in October! It was a difficult decision on one hand but, rather no brainer on the other. Our attendance we suspected would be really low. We wondered if we would have enough people to man all of the jobs involved. Of course, the biggest concern was the safety of all involved. Our board is mostly composed of fossils who are those mostly likely to suffer the most from exposure.

I know the show was always a big thing for many of us. So, let's start thinking about how we can use an extra year to build our club up and pull off a bigger and better show for 2021.

On a brighter note, we do have a lapidary and jewelry facility at our disposal, We had just a few folks come out last week to make the wheels go around. We are scheduled to be open every Tuesday evening at 6:00. Come on out and make something shiny.

We had about a dozen and a half folks show up at Millie's for our picnic. There was plenty of room and shade. So, let's do it again on the 24<sup>th</sup> of this month. Bring your own dinner and a lawn chair. See ya then.  
Bradford

## Topeka Gem & Mineral Society

Has joined the Sertoma Great Topeka Duck Race for 2020-----Go to [www.topekaduckrace.org](http://www.topekaduckrace.org) To adopt a duck for \$5.00 each, A family of 5 for \$20, A flock or 12 for \$50 and A 'oodle' of ducks (27ducks) for \$100.00. The race is September 19, 2020 at Lake Shawnee.

Our Team name is **“Topeka Gem & Mineral Society”**

THIS OUR YEARLY FUND RAISER FOR THE YEAR  
GO ONLINE AND NOW & ADOPT YOUR DUCKS



# TGMS Event Calendar

July 2020			AUG 2020		
1	W		1	S	
2	T		2	S	
3	F		3	M	
4	S		4	T	Wire Wrap Class at BRAD'S 6:00 p. m.
5	S		5	W	
6	M		6	T	Wire wrap class at Millie's 1 p.m.
7	T		7	F	
8	W		8	S	
9	T		9	S	
10	F		10	M	
11	S		11	T	Wire Wrap Class at BRAD'S 6:00 p. m.
12	S		12	W	
13	M		13	T	Wire wrap class at Millie's 1 p.m.
14	T		14	F	NO Board Meeting
15	W		15	S	
16	T	Wire wrap class at Millie's 1 p.m.	16	S	
17	F		17	M	
18	S		18	T	Wire Wrap Class at BRAD'S 6:00 p. m.
19	S		19	W	
20	M		20	T	Wire wrap class at Millie's 1 p.m.
21	T	Wire Wrap Class at BRAD'S 6:00 p. m.	21	F	
22	W		22	S	
23	T	Wire wrap class at Millie's 1 p.m.	23	S	
24	F	Club picnic—At Millie's on the Driveway 6:30 p.m. Box dinners NO Sharing of food.	24	M	
25	S		25	T	Wire Wrap Class at BRAD'S 6:00 p. m.
26	S		26	W	
27	M		27	T	Wire wrap class at Millie's 1 p.m.
28	T	Wire Wrap Class at BRAD's 6:00 p.m.	28	F	Club picnic--TBA
29	W		29	S	
30	T	Wire wrap class at Millie's 1 p.m.	30	S	
31	F		31	M	

Tuesday's wire wrap class has moved to Brad's Shop starting at 6 p.m. Come and join us.

**If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or [rock2plate@aol.com](mailto:rock2plate@aol.com)**

Check out the calendar on our web site

[www.TopekaGMS.org](http://www.TopekaGMS.org)



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

## JR ROCKHOUND Classes & Reminders

Here are reminders of the next few months of classes: Topeka Shawnee CO Public Library sign in starting at 6:00 pm and classes starting at 6:30pm. 1st Thursday of each month...



<https://www.facebook.com/TopekaGMSJuniorRockhounds>  
To register for the Junior Rockhounds or any of the classes, email:  
Jason Schulz at: [Fleetcommander@att.net](mailto:Fleetcommander@att.net)

**The Library has canceled our lessons for the time being,**

Reminder: If you want to earn the patches from the classes that you have attended you need to turn in your homework assignments.

## TGMS CLUB PICNIC for JULY

For the month of July 2020, our Club Picnic will be held at Millie's on the drive way and yard. You are to bring your own **BOX DINNER**, as we will not be sharing food.

If you have a folding table, or card table to use and chair it would be best so that we can spread out.

**This is what to bring this time:**

1. **Your own box dinner, drink, eating utensils, & napkins.**
2. **Table & Chair unless you want to sit on the ground.**



We feel it is important to get together as a Club, but if you feel uncomfortable yet, we understand. We thought by eating outside and spread out that at least we could be together for a while. We start at 6:30 p.m. at 1934 SW 30<sup>th</sup> St Topeka. Park in the street so we can use the driveway. Thank you.



## T-SHIRTS

The T-Shirts are here. There are a few of you that have not picked up or paid for your shirts. Please do so soon. Call or email her so she can set up an appointment for you to pick them up at 1934 SW 30<sup>th</sup> St., Topeka, KS 66611, 267-2849 or [rock2plate@aol.com](mailto:rock2plate@aol.com)

This will be part two of a series that Will Gilliland has put together so that you as an individual can go on a self-guided trip around Kansas to look for fossils and other items.

## **Taking A Field Trip to Calhoun Bluff**

By William Gilliland

Calhoun Bluff located northeast of Topeka is a very good place to see outcrops of the Pennsylvanian age Topeka Limestone Formation. When Kansas was being settled the Kansas River was close to the bluff and restricted travel along the north side of the valley. This resulted in the Oregon Trail not crossing the river until Topeka. Today you can cross the Kansas River on the K-4 highway bridge, from the south, and see the entire geologic section exposed from the floodplain to the top of the bluff.

Before Kansas was a state, a town of Calhoun was located just east of the bluff. Founded by southerners, it was the county seat of Calhoun County. With statehood the northern part became Jackson County and the southern part was attached to Shawnee County. As the town disbanded, the log jail was moved to Oskaloosa, where it can be seen today.

If you are going to explore this area, please wear a safety vest or safety colored clothing while on the highway right-of-way. Stay off the road and be careful of traffic. At the edge of the floodplain the Deer Creek Limestone Formation is exposed in the railroad cut. These layers were deposited in marine waters of the Pennsylvanian age seas. Above the Deer Creek Formation is the Calhoun Shale Formation that was first described and named here. These land deposits were laid down as the sea level fell when water was locked up in continental ice caps in the southern polar region. K-4 highway enters the cut in Calhoun Bluff near the top of the Calhoun Formation.

The Calhoun Formation contains shale, sandstone, siltstone, a few scattered plant fossils, a coal bed, and marcasite. The sandstones were deposited in stream channels and can be seen in cross section along Happy Hollow Road which goes north from US-24 near the Solder Creek bridge west of the bluff.

The coal was deposited in a small swamp near the top of the formation. As you pull off K-4 under US-24, look to the southeast for a patch of ground with little grass, under the ramp to US-24 east. This is one of the exposures of the unnamed coal bed. The coal contains marcasite, an iron mineral that decomposes when exposed to air and moisture, producing sulfuric acid. The local concentration of the acid can damage plants resulting in the bare areas. The coal bed is also exposed along the drainage channel leading to the rock face. This coal bed was too thin to be mined and the swamp was small to start with. You can see the west edge of the coal deposit near the Topeka sign just to the west of K-4 on US-24. It takes about 10 feet of plant material preserved in a swamp to compress into 1 foot of coal. How much plant material do you think was deposited in the swamp to produce this thin coal?

Above the Calhoun Formation the seas returned to the area as the polar ice cap melted. The sediments, that became the Topeka Limestone Formation, were deposited in marine waters that varied in depth and amount of sediments eroded off surrounding land areas. Clear water usually deposited limy mud that became limestone, while increasing sediments produced shale.

In this cut, constructed for the highway, you can identify the different members of the Topeka Formation without having to drive to all the original description locations. Starting with the oldest member at the bottom is the thick, yellow-brown Hartford Limestone Member. The Iowa Point Shale Member is next with the Curzon Limestone Member above it. Next is the Jones Point Shale Member and the Sheldon Limestone Member. The dark gray Turner Creek Shale Member supports many of the cottonwood trees. Next is Du Bois Limestone Member making a ledge from which you can hunt for marine invertebrate fossils weathering from the Holt Shale Member. You can just sort fossils out of the weathered shale and do not need to try and break them out of the dense limestone layers. Soil, plant material and rock debris are making it more difficult to locate the fossils from the Holt Shale. However, by looking close at the surface you can still find them.

The last marine layer is the Coal Creek Limestone Member near the top of the slope. Erosion removed the overlying Severy Shale Formation before more recent glacial outwash material was deposited. There may have been as much as one-half mile of rock layers removed that once covered this area.

The tan silty material above the Coal Creek Limestone is glacial margin lake deposits formed when the continental ice sheets reached into Kansas. The glaciers provided northeastern Kansas with a rich supply of rocks and minerals that we would not otherwise have. The glaciers eroded the surface and transported material from Canada and all points between before depositing everything mixed together as they melted. If you are lucky you might find a rare Lake Superior Agate in the gravels at this site. Hunt in the wash channels along the road and the eroded surface of the glacial drift pile brought here from another road project.

An aid in the identification of the marine fossils found at this site are the drawings of common eastern Kansas fossils by R.C. Moore. These drawings are available as a pdf download from the Kansas Geological Survey at <http://www.kgs.ku.edu/Publications/Bulletins/169/moore/supplemental.pdf>.



Additional information about the glaciers in Kansas is available from the KGS in Glaciers in Kansas at <http://www.kgs.ku.edu/Publications/PIC/PIC28.pdf>.



## Congratulations to our Web Master, Jason

The 1st place ribbon for the RMFMS Web Master contest goes to Topeka Gem & Mineral.

Jason has worked hard on the Website to accomplish this award be sure to Congratulate him when you see him.





## MARIPOSITE - LAPIDARY WORTHY?

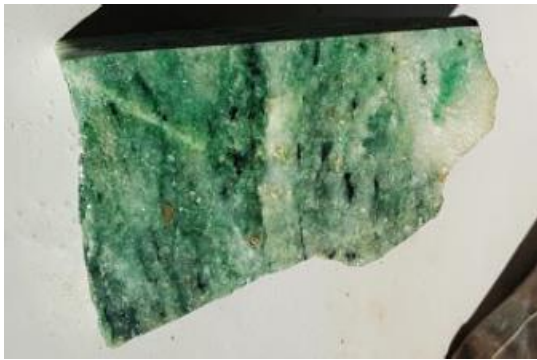
The green and white that make up Mariposite make it an attractive yard rock. But as they say in the television commercials, there's MORE!

### WHAT'S IN A NAME?

When miners during the California Gold Rush discovered they could find gold and placer gold in the green and white rocks around them instead of standing in a cold creek with a pan, they named the rocks Mariposite for the town they were standing in. (Not a huge imagination happening here, but a great way to tell others where to find it).

It can be found in many areas around the world, where it is mostly called Mariposite, except for Canada where they call it Virginite for some reason.

Now, if you want to check my research, please check for Virginite on Google. When I checked on Bing, their articles under "virginite" were not about rocks. Nuf said.



### WHAT IS MARIPOSITE?

It's actually not a mineral. Depending on how you want to think about it, it's either a metamorphic rock or a conglomerate. Chromium-rich Mica give the rock its green color and its flash. Dolomite Marble or Quartz provide the matrix.

### CAN I CAB IT?

That depends on your willingness to handle disappointment.

First, let's examine the hardness on the Mohs scale of the mineral which comprise the rock  
Mica . . . . . 2.5-3 Dolomitic Marble · 3.5-4 Quartz . . . . . 7

As you can see, the Mica and Marble are similar in hardness, but soft as heck. If you want to cab it, plan on making it into a pendant where the edges are encased or it won't last long. When the Mica is next to Quartz, undercutting is a real problem.

I decided to create some Mariposite flowers for this blog post. Not my best idea ever. You can see that I got one (of several tried) flowers. The plan was to make three and make a divot in the center that would hold a crushed yellow rock/epoxy mix to make it look like a flower.



The first one came out fine. A bit rustic, but that was what I was looking for. The others, even though I was using 220 grit and higher, shattered. Apparently, this rock is known for, basically, falling apart. I plan to try to get some more done so I can make a flower arrangement, but I think I'll need to drop them on the floor first to see where the slab breaks naturally.

#### OTHER USES

Aside from gold mining and cabs, Mariposite has traditionally been used for other practical purposes including being a facing stone for buildings or fireplaces and even markers in cemeteries (although I suspect they weathered so quickly that their messages were soon lost).

Have you worked with Mariposite? What was your reaction?

Until next time, your Lapidary Whisperer, Donna

<http://www.lapidarywhisperer.com/2019/07/mariposite-lapidary-worthy.html>

WGMS 8/2019



## How to Heat treat Brazilian Agate

By, Jim Dennis, DGMG VP May 2010

The following procedure brings up much stronger banding and much brighter colors especially on Brazilian agate with a trace of white banding. Heat treating makes the white even whiter. This process creates nice shades of “carnelian.” Do not cover slabs with sand or any other materials. Do not stack slabs on top of each other, as this will cause cracking. On slabs 5/16” or thinner use the recipe below. On slabs thicker than 5/16” double the preheat time (step 2 to 3 hours) to remove moisture so slabs will not explode.

1. Place slabs on cookie sheet or on open rack in cold oven.
2. Turn oven to 200 deg. Run for 1 1/2 hours.
3. Turn oven up to 300 deg. Run 1 hour.
4. Turn oven up to 400 deg. Run 1 hour.
5. Turn oven up to 500 deg. Run 1 1/2 hours.
6. Shut oven off. Leave slabs in oven till cold—Do not open door at any time until the agates are cold—probably overnight.