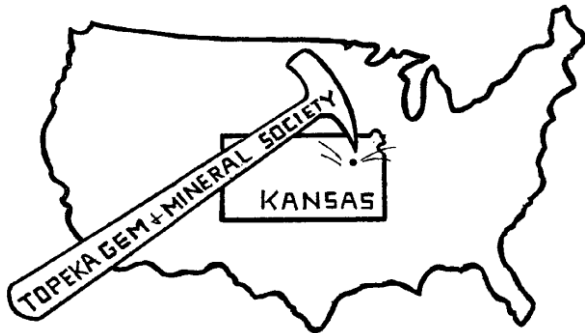


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# 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. 64, No. 5,  
 May 2021



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, University United Methodist Church, 1621 SW College, Topeka, KS 66604. 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)

## 2021 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
	Dave Dillon	272-7804	Show Chairman	Dave Dillon	272-7804
Historian	Open		Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Chuck Curtis	286-1790	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.

# Ramblings from your President.

Howdy one and all.

Months seem to pass so fast when one is busy. With spring and nicer but wet weather the list of Honey do's seem to get longer rather than shorter.

I still have not mowed the grass this year. Tarwaters, have had my mower for over seven weeks, not happy with them. I had Robert Schulz come out and mow a couple of weeks ago but the darn stuff just keeps growing. I am going to need to rake, windrow and bale. Is there any demand for fescue hay? Maybe I could harvest seed.

Fortunately, though, your club is up and running well. If you were not aware, all of our activities are being held and well attended. General meetings at the church have been bringing in a couple of dozen members each time. Next Friday the 28<sup>th</sup> is our next one. Please come and share your smiling faces with the rest of us. Bring a friend. They are always welcome.

Junior Rockhounds next class is June 3<sup>rd</sup>. Encourage the youth you may know to become involved. Details can be found on our website.

Weekly Silversmithing, Wire Wrapping and Lapidary classes and shop time is going strong. Folks have been turning out some beautiful works of art.

These gatherings are being held at my place every Tuesday evening from 6:00 till whenever everyone goes home. We have some wonderful Bull sessions if you just want to come out for a visit.

On this subject, starting June 1<sup>st</sup>. there will be a \$5.00 fee each night for the use of classes and equipment. This money will be used to offset the costs associated with maintaining equipment, supplies and other needs that we have in offering you these opportunities.

Lapidary materials are offered up for free but supplies for wrapping and smithing must be purchased for your projects.

The bull sessions are free to all as long as it doesn't get deeper than what you can walk out of without assistance. Come on out, have some fun, learn a new skill and enjoy the comradery of our clubs.

If you read this before Saturday the 22<sup>nd</sup>., We are having a work party at the storage unit at 10:00 weather permitting. We need to do some sorting, cleaning and organizing before it gets too hot to work there. Call for details.

In the middle of next month, The Wyoming/Sublet rock club will be hosting this years combined Rocky Mountain Federation of Mineralogical Societies & American Federation of Mineralogical Societies show and convention in Big Piney WY.

This should be a really great experience for everyone attending. Check it out if you want to attend.

As a state Director I was asked if someone could create a cab of our states shape, made from a native material. I volunteered because I have never been taught to say "No". Each state will be providing a stone not larger than 1.5" to be adorned in a hatband that will be awarded to the new RMFMS president.

I chose to use our Dendritic/moss Opal from the central portion of the state. Past experience with this material found it to be rather fragile to work with. So, I cut very thin slabs and adhered them to slices of Jet backing to create something a little more stable. Expecting failures, I made three of them just in case. So, now I have three finished stones. I like each one of them and don't know which one to present.

Any preferences? If one strikes your fancy, vote for it on our Facebook page.

Till next month or I see you before, enjoy the spring.

Bradford



## TGMS Event Calendar

May 2021			JUNE 2021		
1	S		1	T	Brad's Shop OPEN 6 PM Wear Masks, have shots
2	S		2	W	
3	M		3	T	Jr. Rhds 6 p.m. UUMC Class 6:30 p.m.
4	T	Brad's Shop OPEN 6 PM Wear Masks, have shots	4	F	
5	W		5	S	
6	T		6	S	
7	F		7	M	
8	S		8	T	Brad's Shop OPEN 6 PM Wear Masks, have shots
9	S		9	W	
10	M		10	T	
11	T	Brad's Shop OPEN 6 PM Wear Masks, have shots	11	F	
12	W		12	S	
13	T		13	S	
14	F		14	M	
15	S		15	T	Brad's Shop CLOSED
16	S		16	W	
17	M		17	T	
18	T	Brad's Shop OPEN 6 PM Wear Masks, have shots	18	F	
19	W		19	S	
20	T		20	S	
21	F		21	M	
22	S		22	T	Brad's Shop CLOSED
23	S		23	W	
24	M		24	T	
25	T	Brad's Shop OPEN 6 PM Wear Masks, have shots	25	F	<b>POTLUCK PICNIC 6:30 P.M. UUMC</b>
26	W		26	S	
27	T		27	S	
28	F	General Meeting 7:30 P.M. UUMC Program-TBA	28	M	
29	S		29	T	Brad's Shop OPEN 6 PM Wear Masks, have shots
30	S		30	W	
31	M	MEMORIAL DAY			

Gone to **BIG PINEY, WY.**

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)

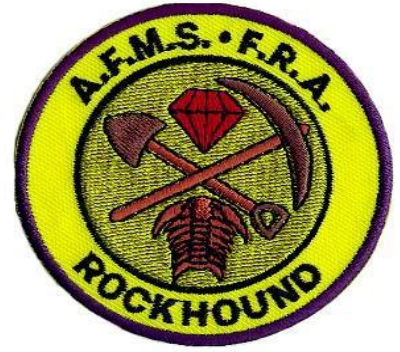
## JR ROCKHOUND Classes & Reminders

Here are reminders of the next few months of classes: **University United Methodist Church, 1621 SW College Ave., Topeka, KS.** 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)



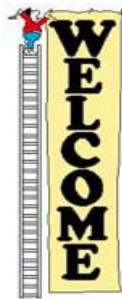
---**Everyone must wear masks!**

Next Class: June 3, Will Gilliland, Instructor

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

Hello everyone, I hope you can join us Friday May 28th for our regular club meeting, starting at 7:30. Our program this month will be given by several members of our club. Andrew Newman will be completing his Future Rockhounds of America badge on Communication sharing with us about our hobby. Brad, Dave & Millie will each talk to us about our rock cutting, silversmith & wire wrapping classes that are available for all members at Brads shop each Tuesday. I will present a brief history on our club. Looking forward to seeing you all at the meeting!

Cinda Kunkler [cindakunkler@att.net](mailto:cindakunkler@att.net)



New Member  
Dhonna Maas

**BEST CHOICE**



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

## Hints for Cleaning Rocks of 7 or More on Hardness Scale

With permission from, Brian Busse Gemtracker

To remove iron found on Amazonite and other rock specimens with Mohs Hardness of 7 or more, purchase a product know as Iron Out. Iron Out can be purchased at Wal-mart or any hardware store.

Brian Busse Gemtracker advises to do this cleaning process in the garage or outside in the sun. Hot water will stimulate the mixture to work a little faster. I suggest using gloves for protecting skin and goggles to protect eyes from splashing.

Before adding rocks, mix ½ C to 1 C of the Iron Out product to each 1 gallon of hot water. Mix powder into the water and not the other way. It will bubble. Add the rocks to the mixture and allow to soak. The amount of time they must soak is dependent on how much iron and the hardness of the rock. You will want to watch for the mixture to turn brown and dump out the mixture and rock. Then you will need to make a second batch of Iron Out mixture and soak rocks a second time. When the rock seems to be clear of the iron, as possible, dump out the mixture and rinse the specimens thoroughly in clear water. Using baking soda, use a toothbrush to scrub clean and neutralize the Iron Out from each piece. Thoroughly rinse in clear water.

Busse does not advise soaking Fluorite or Calcite in this manner but if you do, allow to soak a very short time and rinse in clear water. Use baking soda and a toothbrush to neutralize the effects of the Iron Out and rinse thoroughly again.

Everyone in the Lapidary world finds their own recipes for cleaning their rocks and minerals. First time you clean your rocks with this mixture, try doing a small batch and learn how the mixture works for you.

Submitted by: Donna Stockton TGMS Member

## Summer Time Picnics—June July August



No formal meeting during these months, just a friendly pot-luck dinner among our rock friends. Bring a dish or two to share, your own table service, soft drink. We will meet at the UUM Church at 1621 SW College, Topeka, and eat at 6:30 p.m. on the 4<sup>th</sup> Friday of the month.



## THOMSONITE – MINNESOTA’S HOME-GROWN GEMSTONE

Thomsonite is a very rare opaque stone of gem quality. Colors range from black to subtle shades of coral, pink, red and white. Circles form “eyes,” with dark green a prominent color. About 90% of the world’s supply is found on ten acres of land near Grand Marais, Minnesota.

Unlike Lake Superior agates that were dragged far south by glaciers, Thomsonites are found no farther than two miles from the lake. This indicates that Thomsonite appeared at the surface after most glacial activity was over....about 11,000 years ago.

Lava flowed from volcanoes on the lake shore, with gas bubbles appearing in the lava. Surface water and condensed oxygen seeped down and mixed with other chemicals and acids. Gemstones resulted from the unique conditions, with copper playing a part in the coloration.

Thomsonite was called the “Gem of Many Eyes” by Minnesota Native Americans and was used for ornaments and trade. People began hearing about the stones. They became well known to collectors around the world but were relatively unknown to most people in the stone’s native area. When Harlow M. Tychsen realized he might have something valuable on his land and began doing some reading and experimental mining. He got hooked on the things. He began spending more and more of his spare time at his Lake Superior retreat. So did rockhounds; he hired an armed guard to keep away uninvited guests who happened to have a hammer and a chisel in pocket. At the peak, he mined 1,400 stones per day, each one extracted by hand-tooling.

He was having fun at it but wasn’t much interested in marketing the products. Someone else was. In 1974 Tychsen agreed to sell the land back to Jack and Anita Brust, on the condition that he retain mining rights for as long as he lives. They formed a corporation and looked around for a way to market the stones.

The gemstones had attracted attention for years. There was some jewelry around, but it was always in cheap settings. One notable exception: About the turn of the century Diamond Jim Brady owned a set of Thomsonite jewelry. The \$2 Million group included a ring, scarf pin, watch chain, pencil, shirt stud, five vest buttons, two collar buttons, belt buckle, eye glass case and pocketbook clasp.

(Source: Mesabi Media; The Pegmatite Bulletin; via IGAMS Dec 2018)



Thomsonite is the name of a series of tecto-silicate minerals of the zeolite group. Prior to 1997, thomsonite was recognized as a mineral species, but a reclassification in 1997 by the International Mineralogical Association changed it to a series name, with the mineral species being named thomsonite-Ca and thomsonite-Sr. Thomsonite-Ca, by far the more common of the two, is a hydrous sodium, calci... [en.wikipedia.org](https://en.wikipedia.org)

Thomsonite series, zeolite





## SWEETWATER AGATES FOUND IN WYOMING

Sweetwater Agate is not a true agate as it lacks the banding patterns of agate, but is a form of Moss Agate. Moss Agates have a distinct dendrite pattern from iron oxide or manganese oxide in white to blue chalcedony. Sweetwater Agate appears as a bluish translucent chalcedony with black dendrites (manganese oxide) inside. Some Sweetwater Agates appear as very dark smoky chalcedony that looks black until it is held up to the light. Once a dark Sweetwater Agate is held up to the light it reveals its black dendrite pattern. Other varieties of Sweetwater Agates are made up of a translucent chalcedony that is lighter blue in color with black dendrites inside. Sweetwater Agates are one of the few known agates that fluoresce in UV light and glow in lime greens due to the presence of hydrous uranium arsenate. Sweetwater moss agate may occur as small pebbles in lag gravel and in the basal conglomeratic sandstone of the Split Rock Formation. A few remnants of this original conglomerate still exist near the Cedar Ridge opal deposit south of Riverton. Most of this conglomerate was eroded to the south and was deposited on Agate Flats-20 miles to the south. Sweetwater agates can also be found along the Sweetwater River and Sage Hen Creek west and northeast of Jeffrey City, respectively. The agates in the conglomerate don't look like any of those found on Agate Flats. These are covered with a dark brown surface coating. However, all the rocks in the conglomerate are covered with that same dark brown covering. The Sweetwater Agates aren't common in the conglomerate but when they are found, they are large and of the best quality. This brown surface material can be removed from the Sweetwater Agate by tumbling and polishing.

The Sweetwater Agates on Agate Flats (20 miles south of Cedar Ridge) may be found on the desert slope or in the draws and gullies that has been recently eroded by water. These surface agates can also be sculpted and polished by the wind and sand to form ventifacts. Do not expect to find many Sweetwater Agates as the name "Agate Flats" might imply because others have been before you as this blog tells us; "A big impact upon Agate Flats came from the caravans of rock hounds during the 1970's, many were retired folks from back East. They came west in their newer versions of the covered wagon, but rather than moving through this land and they parked those Airstreams and Winnebago's near any live water and the few springs in the area. Some stayed all summer. Some were commercial men who hunted rocks and sent truckloads of the stuff back east." Therefore, it's a sad story of a land of plenty and how the land was changed. Good luck hunting in the Sweetwater country! Try these locations to find Sweetwater Agates:

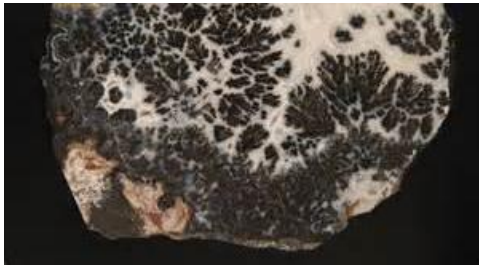
### **Location 1**

(Near the top of the hill north from Sweetwater Station Rest Stop. Gravel beds contain Sweetwater Agate. Eastside of highway. [WWW.maps.google.com/maps/ms?ie=UTF8&t=h&oe=UTF8&msa=0&msid=109563666194210927650.000](http://www.maps.google.com/maps/ms?ie=UTF8&t=h&oe=UTF8&msa=0&msid=109563666194210927650.000))

### **Location 2**

Agate Flats: A 100 square mile area northeast of Sweetwater Station Rest Stop is called Agate Flats. Both the Oregon and Mormon trails crossed this area. The BLM has constructed a two lane, all weather, improved gravel road. And a very large sign announces that if the agates are worth digging up, then the holes are worth filling up or the government will make sure you pay for the difference. The following web links were used to compile this article on Sweetwater Agates:

- (1) <http://planetnews-pro prospector.blogspot.com/> (2) [www.wyomingrockhound.com/rocksofwyoming/wyoming-moss-agate](http://www.wyomingrockhound.com/rocksofwyoming/wyoming-moss-agate)
- (3) [www.samsilverhawk.com/2009gemstones/102509cabs/sweetwater.html](http://www.samsilverhawk.com/2009gemstones/102509cabs/sweetwater.html); [www.samsilverhawk.com/2009gemstones/102509cabs/sweetwater.html](http://www.samsilverhawk.com/2009gemstones/102509cabs/sweetwater.html)
- (4) [www.minerals.net/mineral/sweetwater\\_agate.aspx](http://www.minerals.net/mineral/sweetwater_agate.aspx)
- (5) [www.wsgs.uwyo.edu/publicinfo/onlinepubs/docs/IP-11.pdf](http://www.wsgs.uwyo.edu/publicinfo/onlinepubs/docs/IP-11.pdf)
- (6) [www.talkingstick.me/rocks/gem/](http://www.talkingstick.me/rocks/gem/) photos by Bing.com; via; The Ammonite 06/15



WY. Plume Agate



banded agate



WY. Fairburn Agate



Youngite agate



Chunk of sweetwater agate

## Wyoming, Part IV by Dr. Mike Nelson

For this ‘final’ Wyoming offering I have chosen a couple of areas that sort of fascinate me, but when it comes to geology I am easily fascinated! One is the hot springs area around Thermopolis where travertine terraces rival those of Yellowstone. The other is in eastern Wyoming where agates, normally associated with the plains of South Dakota, have been collected.

For this ‘final’ Wyoming offering I have chosen a couple of areas that sort of fascinate me, but when it comes to geology I am easily fascinated! One is the hot springs area around Thermopolis where travertine terraces rival those of Yellowstone. The other is in eastern Wyoming where agates, normally associated with the plains of South Dakota, have been collected. I have written, in the South Dakota section, about the famous Fairburn Agates. These banded pieces of microcrystalline quartz have fascinated me since I first saw them back in the mid-1960’s and decided “they were pretty neat”-- my interest has remains today.

At any rate, South Dakota Fairburn Agates are “plains’ agates” mostly to the south and east of the Black Hills and mostly associated with terrace gravels along streams and/or lag deposits on top of the Eocene-Oligocene White River Group (Chadron Formation). However, Fairburns or Fairburn-type agates have been located in the adjacent states of Wyoming and Nebraska. Buena Vista Gem Works (2013) noted that in Nebraska the area of collecting is north of US 20 from Chadron to the Wyoming state line, generally following outcrops of the Chadron. Major collecting localities in Wyoming include Lance Creek and Hat Creek (southwest and reasonably close to the Hills) and Glendo and Guernsey (further to the south). Gemworks (2013) also reported “stray finds” of Fairburn-type agates from the Yellowstone River in Montana, also near New Raymer, Colorado, (northeast Colorado), and along the Yampa River in northwest Colorado. The Chadron crops out near New Raymer, but is absent from the Yellowstone and Yampa River localities. Pabian and Cook (1976) reported Fairburn-type agates at localities along the east-flowing Platte River in Nebraska.

Most agate hunters describe Fairburns as fortification agates with a holly leaf banding. They have some sort of red to orange banding due to iron oxides with the black banding ascribed to manganese. The “type area” for Fairburns is near (east) of the small village of Fairburn along French Creek. It seems well established that the agates out on the South Dakota plains originated in the Minnelusa Formation of Pennsylvanian-Permian age and were transported away from outcrop. in the Black Hills by Cenozoic streams. Perhaps the best-know site for observing *in situ* Fairburn agates is at Teepee Canyon west of Custer.

I find it interesting that Fairburn-type agates found at the Glendo and Guernsey locations in south-eastern Wyoming most likely came from rocks similar to the Minnelusa Formation (Hartville Formation) exposed around the perimeter of the Hartville Uplift (Sutherland, 1990) . This uplift is a Laramide structure, not unlike the Black Hills with which it connects on the north, but much more topographically and structurally subdued. The Uplift does have a core of Precambrian rocks with a surrounding ring of Paleozoic and Mesozoic rocks; most of the uplift is now covered by Cenozoic rocks.

It appears, then, that the Hartville Formation (Hartville Uplift is stratigraphically equivalent to the Minnelusa Formation (Black Hills); both produce similar fortification agates (Fig. 8). I also find it interesting that Pabian and Cook (1976) believed the "fortification agates (Fairburn-type) found in Nebraska originated chiefly in sedimentary rock of Pennsylvanian age in the Hartville Uplift and the Front Range of Wyoming. Some may have originated in the Black Hills but this appears to be a minor source." Perhaps Nebraska Fairburn-type agates came from the Black Hills and/or from the Hartville or Front Range Uplifts? (Thanks, Mike, a member of our club, for another great article!) (from: *RMFMS News - Jan.2014/ Editor added photos by Bing.com*)via: *The Ammonite 06/15*