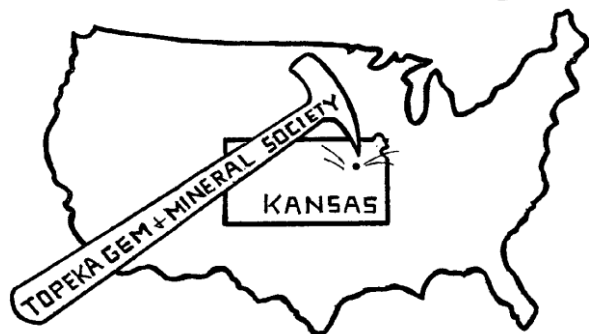


The Topeka Gem and Mineral Society, Inc.  
 1934 SW 30<sup>th</sup> St. Topeka, KS 66611  
 Rock2Plate@aol.com

# 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. 68, No. 1  
 January 2025



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, 7:15 pm, First Congregational Church, 1701 SW Collins Ave, 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)

## 2025 OFFICERS AND CHAIRS

President	Cinda Kunkler	286-1790	Cab of the Month	Donna Hedge	620-660-1651
1 <sup>st</sup> Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2 <sup>nd</sup> Vice Pres.	Desiree Gardner	221-8862	Publicity	Donna Hedge	620-660-1651
Secretary	Stacy Haug	1-857-3350	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	Chuck Curtis	286-1790
Directors	Doria Skinner	231-9347	AFMS Scholarship	Cinda Kunkler	286-1790
	Jim Baer	785-256-2432	Editor/Exchange Editor	Millie Mowry	267-2849
	Shirley Schulz	n/a	Show Chairman	Millie Mowry	267-2849
Historian	Cinda Kunkler	286-1790	Show Dealer Chairman	Dave Dillon	221-4315
Federation Rep	Chuck Curtis	286-1790	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Dennis Hippe	230-6729
Librarian	Cinda Kunkler	286-1790	Show Case Coordinator	Cinda Kunkler	286-1790
Web Master	Chad Skinner	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.

*Greetings From Our New President.*

HAPPY NEW YEAR 2025! In case you are wondering... I am Cinda Kunkler (the club elected me) President for The Topeka Gem & Mineral Society for 2025. Brad has served the club for 5 years as President. He is now Past President and will continue attending Board meetings, helping guide us. Be sure to thank him for his service. Desiree Gardner has been elected as 2nd Vice President, which puts her in charge of programs. Please help us by making suggestions with ideas for what you would like for programs, field trips, shop, our library and our October show!

January's program will be our silent auction. With all this snow keeping us inside, it's perfect for going through rocks, looking for items you can part with that someone else might like to have in their collection. Please come to our meeting January 24 and join us in planning for 2025. With more snow coming our way, let's hope the sun will shine and melt some of it down. We have ideas for the colder months of visiting museums', what are yours? Come join us, It'll be FUN!!! Cinda

## Your Dues Are Due!

If in question, contact Millie at rock2plate or call 785-267-2849 and leave a message.



## *To Our New Members*

Michelle Duey  
Lance Thompson & Cameron\* Thompson  
Amanda Schultz  
Nicole Martin  
Bret Harshberger, Rachel & \*Cooper  
Michelle Blindt



We are still in need of a lot of UPC labels  
From Best Choice products. Bring them in to Cinda  
So, we can get our rebate.

# TTGMS Event Calendar

Jan 2025			Feb 2025		
1	W		1	S	
2	T		2	S	
3	F		3	M	
4	S		4	T	
5	S		5	W	
6	M		6	T	Jr RHD's Gather at 6 Meeting at 6:30p Wire Wrap Class at Millie's 6:30p
7	T		7	F	
8	W		8	S	
9	T		9	S	
10	F		10	M	
11	S		11	T	
12	S		12	W	
13	M		13	T	Wire Wrap Class at Millie's 6:30p
14	T		14	F	Valentine's Day, Board Meeting 7p
15	W		15	S	
16	T		16	S	
17	F	Boad Meeting at Millie's 7 p.m.	17	M	
18	S		18	T	
19	S		19	W	
20	M		20	T	Wire Wrap Class at Millie's 6:30p
21	T		21	F	
22	W		22	S	
23	T	Wire Wrap Class at Millie's 6:30p	23	S	
24	F	<b>Regular Mtg</b> - Mtg. Gather 7:15 p.m. Mtg at 7:30 pm <b>FC Church 1701 SW Collins</b>	24	M	
25	S		25	T	
26	S		26	W	
27	M		27	T	Wire Wrap Class at Millie's 6:30p
28	T		28	F	<b>Regular Mtg</b> - Mtg. Gather 7:15 p.m. Mtg at 7:30 pm <b>FC Church 1701 SW Collins</b>
29	W				
30	T	Wire Wrap Class at Millie's 6:30p			
31	F				

Brad's shop closed until further notice from him.

NO FIELD TRIP IN JANUARY

## As A Reminder!

If you are wanting to take a class in Silversmithing or wire wrapping you are to call either Jim Baer at 785-256-2432 or email him at [jimbaer73@gmail.com](mailto:jimbaer73@gmail.com), the Monday before class to let Jim know you will be there. For wire wrapping contact Millie Mowry at 785-267-2849 or email [rock2plate@aol.com](mailto:rock2plate@aol.com), as she holds class at her house.

## JR ROCKHOUND Classes & Reminders

Here are reminders of the next months of classes: **First Congregational Church, 1701 SW Collins Ave., Topeka, KS.** Sign in starting at 6:00 pm and classes starting at 6:30 pm. 1st Thursday of each month.



<https://www.facebook.com/TopekaGMSJuniorRockhounds>

To register for the Junior Rockhounds or any of the classes, email:

Dennis Hippe at: [go.purple@hotmail.com](mailto:go.purple@hotmail.com)

Next Class: February 6, 2025 Rocks -- Brad Davenport

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

### Rocks for Juniors

Reminder to bring any extra rocks you might have that you would like to donate to the Junior Rockhound Club. We are trying to let the kids go on a "field trip" after class. Some of them really don't have much of a chance to add to their collection. We will have a table set up at the back of the room that they can come to and let them each pick out four rocks that you have graciously donated. This way they can add to their collection. Thank you so much for your contributions. This wouldn't be possible without you.

Dennis Hippe

**A REMINDER-RE-REGISTER!**  
This is an easy way for our Club to make money.

### Dillons Community Reward Program

The Topeka Gem & Mineral Society has enrolled with the Community Rewards with Dillon's Store. You can enroll your shopper's card at: [www.dillons.com/communityrewards](http://www.dillons.com/communityrewards) once you sign up it will take about 7 to 10 days to be activated and our Club to start earning the rewards. At the bottom of your Kroger receipt, you will notice "At your request, Kroger is donating to 'your organization name'".

1. You will have to re-register each year.

If you have any other questions email [DCR@dillonstores.com](mailto:DCR@dillonstores.com)

## *The TTGMS Library*

In the TTGMS Library there are well over 100 books to choose from That cover a vast array of subjects of lapidary art and geology.

The library has currently moved to the church storage area, contact Cinda if interested in checking out a book.



**DUES ARE DUE!**

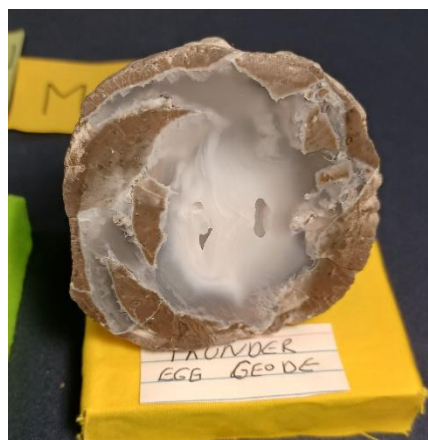
## Cab of the Month Winners for 11/22/24:



Cab of the Month: Turritella - Doria Skinner

Jewelry: Mescalero Jasper Earrings - Doria Skinner

Lapidary Art: Wire Wrapped Scorpion - Robert Schulz



Specimen: Thunder Egg Geode – Larry Hardesty



## Topeka Gem & Mineral Society General Meeting - November 22, 2024 at 7:30 p.m.

**Call to Order:** President Brad Davenport calls the meeting to order at 7:30 p.m. There are 27 members present. Three door prizes are given out.

**Approval of Minutes:** Minutes from the previous meeting were printed in The Drifter. Chuck moves to approve the minutes as they are written. There is a second and the motion carries.

**Treasurer's Report:** Millie Mowry reports the club balance. Chuck Curtis presents a bill tonight for a machine part in the amount of \$60.68. The yearly bill for the storage unit will be due next month. This bill will be an increase over last year because we have rented a larger storage unit. Membership dues are due and Millie is accepting payment tonight.

**Old Business:** None

**Communications:** Cinda Kunkler reads a thank you letter for our donation of \$325.35 to the AFMS scholarship foundation from proceeds of the scholarship booth at the show.

**Show:** The club made a profit of \$600 from the show. The next show will be in October 2025. Most of the vendors expressed interest in returning. Lots of committee chairmen are looking for help and ideas from members.

**Publicity:** Donna Hedge & Donna Stockton have put in a lot of work this past year and need some help. We need a new chairman to head up the Publicity Committee. We also need someone who is good at talking to businesses about donations. Brad asks members to give this some thought and let an officer know if interested in helping.

**Field Trip:** There is a field trip scheduled for tomorrow at the Midwest Concrete Materials quarry between Lecompton and Perry. Will meet at 9:00 to get everyone signed up and leave for the site by 9:30 am. A group picture will be taken at the site before members are released to start hunting.

**Junior Rockhounds:** The next class is December 5th and will be "Fluorescent Minerals" taught by Will. There will be a meeting on December 13th at 7:00 p.m. at Millie's house for teachers and helpers of the Juniors program to set up a schedule for the next 15 months.

**Webmaster:** Chad is not here tonight. Doria reports that more dates have been added to the online calendar. GPS directions for the field trip are on the site.

**Shop:** Brad thanks Russ and Chuck for their diligent work on one of the machines. The Genie was pulled apart and the bearings were removed and replaced. It should be functioning properly on Tuesday night. A few people from Goodyear helped in repairing the machine. It is requested that the club donate some silver and cabs which Russ will make into pendants to gift to the helpers from Goodyear to thank them. Anyone interested in learning Silversmithing, please let Jim know. Millie is wire-wrapping at her house on Thursday nights; if interested, please let her know.

**Historian:** Nothing to report

**Time Sensitive:** Christmas Dinner is on December 6th at Johnny's Tavern. We will meet at 6:00 p.m. and dinner will be served at 6:30 p.m.

Brad has looked over the questionnaires and they will be sent out soon.

**New Business:** There is one billboard tarp from the show left and Cinda asks if anyone is interested in it. A few members were interested and a drawing was done for a winner.

Shirley Schulz reports that the 4-H Extension Office is putting on a grant writing workshop on February 18th with a cost \$60. This is for anyone who has an interest in learning how to write grants. Brad declares that any members who are interested in going to this and writing grants for the club will have their fee paid for by the club.

Election of officers is tonight. Chuck asks if there are any nominations from the floor. No nominations are made. Ballots are distributed. Brad reiterates at this time that a lot of committees need help and are looking for new members.

Chuck reports moving day for the storage unit is December 14th at 10:00 a.m. at Valley Storage. There is a sign-up list on the front table for members willing to help. Has to be done by the end of the year.

**Adjournment:** With no further business to discuss, there is a motion and a second from the floor to adjourn the meeting. Motion carries. Meeting is adjourned at 8:05 p.m. to the program - YouTube video "Cutting 15 Different Kinds of Jasper" by KatyDid Rocks!, and YouTube video "Jade Hunting, Identifying Jade (The Learning Process)" by Dan Hurd (Dan Hurd Prospecting). Submitted by: Stacy Haug, TTGMS Secretary

## Sea Conditions: Calcite or Aragonite?

A calcite sea is one in which low-magnesium calcite is the primary inorganic marine calcium carbonate precipitate. An aragonite sea is the alternate seawater chemistry in which aragonite and high-magnesium calcite are the primary inorganic carbonate precipitates. The Early Paleozoic and the Middle to Late Mesozoic oceans were predominantly calcite seas, whereas the Middle Paleozoic through the Early Mesozoic and the Cenozoic (including today) are characterized by aragonite seas.

The most significant geological and biological effects of calcite sea conditions include rapid and widespread formation of carbonate hardgrounds (essentially a lithified seafloor), calcitic ooids, calcite cements, and the contemporaneous dissolution of aragonite shells in shallow warm seas. Hardgrounds were very common, for example, in the calcite seas of the Ordovician and Jurassic, but virtually absent from the aragonite seas of the Permian.

Fossils of invertebrate organisms found in calcite sea deposits are usually dominated by either thick calcite shells and skeletons, were infaunal and/or had thick periostraca, or had an inner shell of aragonite and an outer shell of calcite. This was apparently because aragonite dissolved quickly on the seafloor and had to be either avoided or protected as a biomineral.

Calcite seas were coincident with times of rapid sea-floor spreading and global greenhouse climate conditions. Seafloor spreading centers cycle seawater through hydro-thermal vents, reducing the ratio of magnesium to calcium in the seawater through metamorphism of calcium-rich minerals in basalt to magnesium-rich clays. This reduction in the Mg/Ca ratio favors the precipitation of calcite over aragonite. Increased seafloor spreading also means increased volcanism and elevated levels of carbon dioxide in the atmosphere and oceans. This may also have an effect on which polymorph of calcium carbonate is precipitated. Further, high calcium concentrations of seawater favor the burial of CaCO<sub>3</sub>, thereby removing alkalinity from the ocean, lowering seawater pH and reducing its acid/base buffering.

*Wikipedia via Rocky Trails, 4/20, via WGMS Rockhunder06/2020*



Can you guess what this stone is? Have you ever heard of cordierite? Yes...No

How about Iolite? I knew you would get it. Iolite, aka Cordierite, is an absolutely outstanding smoky grey, to purple, to blue mineral that can be faceted as well as turned into cabochons. This mineral is a magnesium iron aluminium cyclosilicate. What is a cyclosilicate you may be thinking? It is a silicate-based crystal that forms in a ring shaped pattern, in the case of iolite it is a six-sided ring shape. This makes it a stable ring patternlike beryl and tourmaline. What

give it the remarkable blue/purple colors are the combinations of the magnesium iron and aluminium. More magnesium moves it towards the purple/blue side, more Iron moves towards the smoky side.

Variations of this stone can be found all over the world. In the United States, it can be found in Connecticut and Wyoming. Internationally, it can be found in India, Madagascar, Tanzania, Brazil and Canada as well as in other countries not named. The largest Iolite crystal was found thus far was found in Wyoming and it was more than 24,000 carats. Yikes!

Fun facts about Iolite: the name of the stone comes from the Greek word violet. This was not the first Greek name for this stone though, it was originally called dichroite meaning "two-colored rock". This comes from the fact that the color of the stone can change depending on the angle through which light passes through the ring structures within the stone. If you think of the ring structure as a six sided donut with a hole down the middle, if you are looking down the middle of that ring, the color gets washed out and the color changes to a smoky grey, light blue color. If you are looking at the side of the ring (no hole in sight) and shine a light on the stone, the light will reflect off six sided angles, showing the magnesium/iron/aluminum imbedded in the ring and will reflect the deeper colors of blue and purple.

Another name for the stone is "water-sapphire" or "Viking Compass" because this was the fabled stone Viking's used to determine the direction of the sun on overcast days.

Via *Rock-A-Teer*, 4/20, via *WGMS Rockhounder* 6/2020

## Shadow and Iris Agates

By Terry Roberts

When I read "The Beauty of Banded Agates" by Michael R. Carlson several years ago, I was awed by the beauty of these agates. Most rockhounds are familiar with the outstanding patterns and colors exhibited by Laguna, Brazilian, Dryhead, Fairburn, Condor, Queensland and other banded agates shown in the book. However, the author showed two types of agates that I was determined to find. These are the Shadow and Iris agates. Mr. Carlson provides an excellent description of each phenomenon in his book.

Shadow Agates display a shimmering optical effect caused by a phenomenon known as parallax. The shadow is caused by regularly spaced bands that are alternately clear and opaque. The opaque band is usually white in low quality agates, but can be bright colors in high quality agates. As light enters the agate at an angle to the surface of the bands, the opaque band will cast a shadow in the clear band since light is not reflected out of it. By moving the stone back and forth, the shadow will move across the bands. This can be seen in the photo where the shadow moves along the upper left side of the cabochon. A word of caution: This is not "chatoyance" which is



an optical effect caused by the reflection of light from some fibrous material as seen in Tigereye.

The Iris effect is often, but not always, found in low quality agate that a collector may be tempted to discard. I finally found a good example of this phenomenon in an ordinary Brazilian agate slab that had no noteworthy patterns and very little color. This can be seen in the photos which show light and again in transmitted light from an incandescent on the surface from the polishing cloth that appear to be This phenomenon is produced when light passes through fine bands (up to 10,000 bands per inch). The bands act the edges of the bands have alternately high and low the light to break into spectral colors. Since not all agates refractive indices suitable for separating colors in white quality and the number of colors that will be displayed.



the Brazilian agate in reflected light from a reflected bulb (the cab has pieces of lint scratches).

a clear agate with extremely as a diffraction grating where refractive indices which cause have evenly spaced bands and light, the iris effect varies in



In order to get the best colors from this cabochon, I had to grind it down to a thickness of about 2.5 mm in the center of the dome and 1.5 mm at the edge. If the agate cab had been any thicker, the colors would not have been noticeable. So, if you find a clear agate slab that appears to have wavy shadows that are caused by microscopic bands, you might try to grind it to a very thin slab. You may be rewarded with a beautiful Iris Agate.

ROCK-N-ROSE, 11/15, via WGMS Rockhounder 6/2020

## Victoria Stone - When man-made is worth as much as natural

By Crazy Cabbers Gina Webb CM

*Taken from the August edition of the High County Glemmings newsletter of the Henderson County Gem & Mineral Society*



This is a cab I recently cut from this material.

There aren't many designer cabochons cut from Victoria Stone that truly showcase the phenomenal patterns and chatoyant character of this material. In fact, there are very few cabochons cut from this material at all, relatively speaking.

The reasons for this are twofold. Number one, there is only a limited supply of this material left in the world for reasons I will address shortly. And, two, much of this material was decompressed hastily and improperly which rendered it useless for any lapidary purposes.

Production of Victoria stone ceased upon the passing of its creator, Japanese scientist Dr. S. Limori, in the

1980's. Yes, it is a lab created mineral and the secret of its formula was lost with his passing.

It is not, however, considered to be a synthetic or simulated gemstone, but rather a re-constructed stone made from a very laborious process using natural raw minerals (quartz, feldspar, magnesite, calcite, fluorspar, etc.). The entire process took months to complete. The final result was an entirely new mineral similar to nephrite jade, but the arrangement of actinolite crystals is quite different. Instead of the crystals interlocking and tying together as they do in jade, they have crystallized into fan-like shapes that provide the chatoyant patterns that characterize this material.

The raw minerals were first heated to extremely high temperatures into a molten magma to which special crystallizers and crystal habit regulators were added in a controlled environment. The magma was then poured into boules and placed under incredibly high pressures, around 2000 pounds of pressure to be more precise, and then cooled over a period of about 35 to 40 days during which time the chatoyant crystals were formed. Upon completion, the boules were sold with specific instructions on how to decompress the material for use in lapidary purposes. It was a difficult and tedious process to decompress the boules properly.

Victoria Stone has a hardness of 5.5 to 6.0 on the Moh's scale, a specific gravity of 3.02, and a refractive index of 1.62. It is said to have been created in 20 different colors, but evidence of only 15 has been found. Produced from 1960 to the 1980's, they are - green, sky blue, reddish purple, yellow green, blue green, sky indigo, chocolate, yellow, deep indigo, white, quiet green, quiet yellow, quiet blue, grey, and black.

There was also a transparent, or translucent, variety of Victoria Stone that was created for faceting purposes. It was cooled down in one day so that it wouldn't crystallize to form chatoyant patterns. It came in 8 different colors, including sapphire blue, emerald green, amethyst purple, ruby red, topaz, aquamarine, garnet, and peridot green.

Many have spent thousands of dollars trying to reproduce this material, but none have succeeded. So, alas, Dr. Limori's secret formula remains a mystery. Not even his son could reproduce it. All that remains in the world is what was produced and purchased 30 to 50 some years ago (that which was decompressed properly, that is). Hence, its value remains steady and rising, even in this economy.

In Japan, Victoria Stone is considered to be a sacred mineral and purported to bless that which it touches. I'm not sure about that, but I do love working with this material. I find it to be quite easy to cut and polish. It is a relatively soft stone, not as soft as, say, Onyx, but enough so that the 80 grit grinding step may be skipped altogether when rough shaping a cabochon. In fact, I would suggest that due to its coarse grit that it be skipped, but that's a personal call.

A good starting point is the 120 or 180 grit wheels, although you may start at the 100 grit grinder if so desired, but be careful as this material grinds away fairly quickly. Once a decent rough shape is acquired, the remaining steps are usually a breeze. Next, I proceed to the 220 grit grinder to smooth out what will be the final shape, also making sure I have a well-rounded dome at this point, before beginning with the pre-polishers.

Pre-polishing starts with the 320 grit belt, moving on to the 400 grit belt, and ending with the use of the 600 grit belt. It should take no more than about a minute or so at each pre-polishing step. After pre-polishing, I then use a 3000 diamond grit polishing belt, taking my time at this step to achieve maximum desired results. A final polishing option is the use of Linde A polishing powder on a special buff, but this step is not really required for this material. I usually have a very nice high sheen after finishing with the 3000 diamond grit. I've read that polishing Victoria Stone can also be done using a dry leather buff with tin oxide, but I haven't tried that method.

I hope this has been informative. I really enjoyed researching this material further and learned even more this time around. When you get the opportunity, please take the time to stop by the lapidary workshop in the back of the Mineral and Lapidary Museum and check out for yourself what we're working on or, better yet, come work in the shop yourself. The supervisors are very helpful and newcomers are always welcome. Via The Goldrush Ledger 10/11, via WGMS Rockhounder Jan 2012