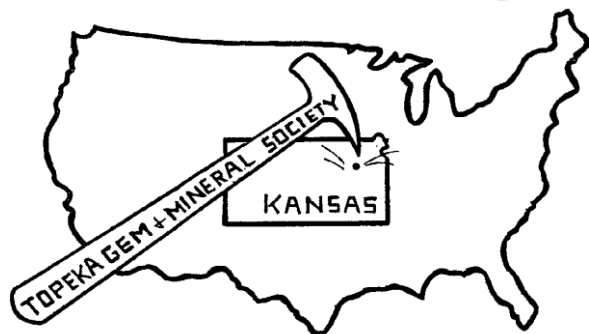


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

THE GLACIAL DRIFTER



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. 67, No. 10
 October 2024



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, 7:15 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 30th St, Topeka, KS 66611.**

www.TopekaGMS.org

2024 OFFICERS AND CHAIRS

President	Brad Davenport	379-8700	Cab of the Month	Donna & Russell Hedge	620-660-1651
1 st Vice Pres.	David Dillon	221-4315	Field Trip Coord.	Chuck Curtis	286-1790
2 nd Vice Pres.	Cinda Kunkler	286-1790	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.
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.



Club Elections

They are here this month, and if you are interested in any of the following positions, be sure to be at the November meeting to get your name on the ballot.

Here are the Elected Positions & who is on the ballot:

1. President----Cinda Kunkler
2. Vice President----David Dillon
3. 2nd Vice President (Is also the program chairman)----Desiree Gardner
4. Secretary----Stacy Haug
5. Treasurer (this you will have to be an under-study for a time frame)---Millie Mowry
6. And 1 Director (On for 3 years)---One will go off this year

They will be voted on at the club meeting in November, installed at the Christmas Dinner, and takes over in January.



The program will be a surprise for November! You will not want to miss it.

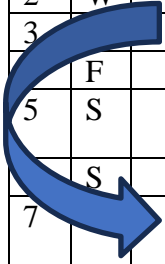
Cinda Kunkler, 2nd Vice President

Our Celebration of Life for Russell will be held on what would have been his 80th birthday, October 28,th at Skinny's Sports Bar and Grill, 4016 SW Huntoon in Topeka. For those members of The Gem and Mineral Society who would like to attend, know that this was his favorite place in Topeka for a good hamburger and a beer (Or soft drink) while keeping track of all the sports on the tubes (At a good price). Time will be from 2 - 6pm so stop by or stay awhile, just as Russell would have liked it to be - unless it was eating oysters in Apalachicola, Florida!

Donna Hedge

TTGMS Event Calendar

OCT 2024			NOV 2024		
1	T		1	F	KC Show
2	W		2	S	KC Show
3	F		3	S	KC Show
4	S		4	M	
5	S		5	T	Brad's Shop Open 6-10 pm / Dave's Casting
6	S		6	W	Dave's Casting
7	T		7	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
8	T		8	F	
9	W		9	S	
10	T		10	S	
11	F		11	M	Veterans Day
12	S		12	T	Brad's Shop Open 6-10 pm
13	S		13	W	
14	M		14	T	
15	T		15	F	
16	W		16	S	
17	T		17	S	
18	F		18	M	
19	S		19	T	Brad's Shop Open 6-10 pm
20	S		20	W	
21	M		21	T	
22	T	Brad's Shop Open 6-10 pm	22	F	Regular Mtg - Mtg. Gather 7:15 p.m. Mtg at 7:30 pm FC Church 1701 SW Collins
23	W		23	S	
24	T		24	S	
25	F	RMFMS CONV	25	M	
26	S	RMFMS CONV	26	T	Brad's Shop Open 6-10 pm
27	S	RMFMS CONV	27	W	
28	M	RMFMS CONV	28	T	
29	T	SHOP CLOSED	29	F	
30	W		30	S	
31	T				



Attention Wire Wrappers

For those interested in taking lessons in wire wrapping, after our show in October, I will be having class at my house on wire wrapping instead at Brads. We are hoping it will generate more interest in the craft. I can only hold 6 at my kitchen table at a time, So, if you are interested, let's get together and make our plans.

Millie, rock2plate@aol.com or 785-267-2849 leave me a message.

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, for wire wrapping contact Millie Mowry at 785-267-2849 or email rock2plate@aol.com the Monday before class to let them know you will be there.

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

Next Class: November 7, 2024 Communications – Jason Schulz

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

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 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

[1st quarter's rebate amounted to \\$50.64.](#)

[2nd quarter's rebate amounted to \\$57.98 Thank you 12 people](#)

[3rd Quarter's rebate amounted to \\$53.06](#)

[4th Quarter's rebate amounted to \\$51.76](#)



The Library has moved.

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.

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.



To All Of Our New Members

*Katrina & Bruce Fox
*Julis & *Allee Fox
Mayetta, KS*

*Stacy James-Cooper
*Jess Cooper
Auburn, KS*

*Paul D. Goodwin
Topeka, KS*

*Tasha Smith
Topeka, KS*

*Ann Knabe
Topeka, KS*

*Wendy Brittain
Topeka, KS*

*Debra O'Quinn
Topeka, KS*

*Brandon Blick & Beth King
Topeka, KS*

*Riley Sanford
Topeka, KS*

*Grace Gotta
Topeka, KS*



THANK YOU FOR YOUR SERVICE



TTGMS Christmas Dinner

Johnny' Bar & Grill

29th & Fairlawn

December 6, 2024

Details to follow

Phenomenal Gems

by Wanda Tilsit

When you hear the phrase “phenomenal gems”, what do you think the meaning is? The dictionary definition of phenomenal gives the impression that these are really great stones, by gem standards very exceptional. In some respect that is correct. However, in gemological circles, the term “phenomenal” holds a very special meaning. It is minerals or gemstones classified in a way which it exhibits special optical characteristics -- or phenomena.

Special optical characteristics... what do we mean by special optical characteristics? Well if you see a star sapphire, the star effect, which is referred to as asterism, is an optical characteristic or phenomenon

Asterism

A star may have four, six, or 12 legs (rays) radiating out-ward from a central point. They will also follow the light source as it travels over the surface of the stone. To fully exhibit this effect, gemstones or minerals need to be cut en cabochon, a style that has a domelike appearance on top.

While many minerals and gemstones exhibit stars, some are extremely rare and highly prized by collectors and jewelry designers. Stars can be found in Quartz, Garnet, Sapphire, Ruby, Scapolite, Spinel, and Diopside.



Star Sapphire

Chatoyancy

Another type of phenomena, is where some gemstones exhibit the optical effect called chatoyancy. A chatoyant gemstone, if properly fashioned, will display a line of varying thickness that will glide over the surface of the host material as it follows the light source. To fully appreciate chatoyancy, materials need to be fashioned in the same way that stars are -- en cabochon.

The word chatoyant is derived from a French phrase that translates as “eye of a cat.” Large or small, feral or domesticated, all cats have one trait in common - a characteristic slit that runs through the center of the eye; hence the more well known term “cat’s eye”. It should be noted that the term cat’s eye always refers to the mineral Chrysoberyl. However there are other minerals which exhibit this effect.

Such as Tourmaline, Quartz, Tiger-eye, zircon and moonstone.

So how do stars and cat’s eyes occur? They are due to a special arrangement of inclusions in the mineral. As incoming light strikes the surface of the host material, it comes into contact with and reflects off of a series of fine fibers or needles. If the needles are arranged parallel to one another, this creates a Cat’s Eye effect. If the layers of parallel needles or fibers are arranged at definite angles throughout the material, stars are produced. In case of simple chatoyance, for instance Tiger’s eye, most pieces are a yellow to light brown color, but enhancements can create reds or other colors, and a naturally occur-ring variant called “hawk’s eye” has a grey-blue to greenish color. Less familiar to many, but greatly admired for their displays of chatoyance are the Charoite, Pietersite, and Seraphinites.



Chrysoberyl

Seraphinite

The gem variety of Clinocllore, is a lovely dark green stone that changes sparkle and light as you view it from different positions. It comes from mine Korshunovskaia which is situated not far from Baikal Lake in Eastern Siberia, Russia. This mineral got its name from the Greek words for inclined and green since its structure is monoclinic and its common color is green.



Seraphinite

Charoite

From Russia, discovered in 1978 in the Murun Mountains in Yakutia. Named after the nearby Charo river. It is opaque bright purple, with wild swirls of fibrous material and is one of the strangest looking natural gemstone.

Pietersite

Pietersite crystallizes in the form of masses, the structure a result of inclusions in jasper where the inclusions are pseudomorphs after asbestos. The color is blue/black/red/yellow with a strong chatoyant quality. It was discovered by Sid Pieters, on his farm in Namibia.

Color Change



Alexandrite
(incandescent
light)



Alexandrite
(daylight)

Another very important phenomenon is color change. You may occasionally hear the more technical term photochromism (photo:light and chro-ism:color) used to describe the effect. The most famous color-change gemstone is Alexandrite, a member of the chrysoberyl species. When exposed to daylight and then incandescent light, it will change colors. The most highly prized material changes from a bluish green to a reddish color. The more intense the change, the more valuable the material becomes. Color change, while highly prized by collectors, is not present in many mineral species. In some cases, such as Tourmaline, the phenomenon is extremely rare. While Alexandrite is the most well known and expensive color-change mineral, there are less expensive alternatives, such as color change Garnet or Sapphire.

Iridescence

Iridescence is a phenomenon which shows as a multicolored, surface effect, which is caused by diffraction. As white light passes through very small openings such as pores or slits, or through thin layers of material which differ in refractive index, a prism effect causes it to separate into spectral colors. These may then be seen on the surface, or in some cases in the materials interior. Sometimes when combined with interference, i.e where the slightly out of phase color waves bounce off of different layers over-lap as they reflect, a loss of some colors or a reinforcement of others colors can take place giving rise to dramatic color blocks, which may shift with viewing angle.



Rainbow
Obsidian

Iridescence is the most wide-spread of the optical phenomena, we see its effects in pearls, the display of fire agate, “rainbow calcite”, certain obsidians, and iris agate. It also creates the rainbow display of fractures, the beautiful colors of Labradorite, and, the most well known occurrence in Iris Agate the “color play” of precious opal.

Pearls

The orient of pearls, is a delicate, shifting, iridescent color layer that is distinct from the basic body color of the pearl or from its luster. Both luster and orient are a function of the thickness and perfection of the layer of nacre on the pearl’s surface. Nacre is composed of thin plate-like layers of Aragonite crystals accounting for over 90% of its weight, along with conchiolin protein,

hear the more technical term photochromism (photo:light and chro-ism:color) used to describe the effect. The most famous color-change gemstone is Alexandrite, a member of the chrysoberyl species. When exposed to daylight and then incandescent light, it will change colors. The most highly prized material changes from a bluish green to a reddish color. The more intense the change, the more valuable the material becomes. Color change, while highly prized by collectors, is not present in many mineral species. In some cases, such as Tourmaline, the phenomenon is extremely rare. While Alexandrite is the most well known and expensive color-change mineral, there are less expensive alternatives, such as color change Garnet or Sapphire.



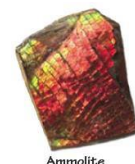
Fire Agate

Fire Agate

The aggregate quartz known as fire agate, gets its iridescence from thin coatings of iron oxide (limonite) layered over its botryoidal chalcedony surface. The best specimens of this material can be very striking.

Ammolite

This gem is the result of the fossilization of extinct, shelled mollusks, called ammonites. Although many ammonite fossils are found, only a certain type from a restricted area in shows the iridescent effect, which has preserved, and enhanced, the thin, tablet like aragonite layering of the shell. The thickness of the preserved

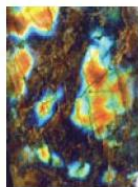


Ammolite

Canada
crystal

layers controls the colors that will be seen. Thicker layers produce red or orange colors, and thinner ones, the blues and violets. Due to the fragility of the thinnest layers, specimens with blue or violet color are especially rare and costly. Phenomenal obsidian

Most obsidian is pretty plain looking, in mostly drab shades of brown and black. Certain types, however, display iridescent patterns due to dense congregations of minute suspended inclusions that act like diffraction gratings. This is sometimes given the trade names of “velvet” or “rainbow” obsidian.



Labradorite

Labradorescence

Labradorescence is a type of phenomenon, whereby a form of iridescence caused by repeated, microscopically thin layer (lamellar) twinning in Labradorite feldspar. One of the characteristics is that the twinning is very specifically

Pearls

The orient of pearls, is a delicate, shifting, iridescent color layer that is distinct from the basic body color of the pearl or from its luster. Both luster and orient are a function of the thickness and perfection of the layer of nacre on the pearl's surface. Nacre is composed of thin plate-like layers of Aragonite crystals accounting for over 90% of its weight, along with conchiolin protein, oriented within the crystal, thus making the iridescent display highly directional. At some angles the light encounters no thin layers and no effect is seen, in other directions of view we see a bright blue, gold, green or multicolored surface.

Adularescence

Adularescence is another phenomena which occurs when a gem displays a billowy floating light which appears to come from below the surface. The name comes from the most prominent gem displaying the phenomenon: moonstone, known historically as “adularia”. The term “shiller” or “schiller” is sometimes used to describe the light. In Moonstone, adularescence is due to a layer effect, where thin inner strata of two types of feldspar intermix, (exsolution regions of sodium feldspar in potassium feldspar). These layers scatter light either equally in all spectral regions producing a white shiller, or as in the most valuable specimens, preferentially in the blue or the blue and orange. As in so many cases of optical phenomena the size or distance from layer to layer influences the colors we see.

Aventurescence

Aventurescence is a phenomenon which owes its beauty and distinctiveness to structural features which diffract or scatter light. Aventurescence is a consequence of reflection. When disk or plate-like inclusions of another mineral are present, and are of a highly reflective nature, they act as tiny mirrors, which causes the gem to sparkle and glitters. This glitter is called adventurescence.

The term shiller, is also used to describe this sparkly glow. The most common reflectors are copper, hematite and mica. The name is derived from the Italian word for “chance” or accident, and has no “d” in it, but the word is mispronounced as “adventurine”. The most commonly encountered species showing this effect are certain feldspars and one variety of quartz.

“Goldstone”, a manmade aventurescent glass with copper particles deliberately added to it, has been an inexpensive and popular gem imitation since the Victorian period

Article from the Gem Cutters News, June-July 2010, Via Goldrush Ledger, July 2012, via The Rockhounder Aug 2012