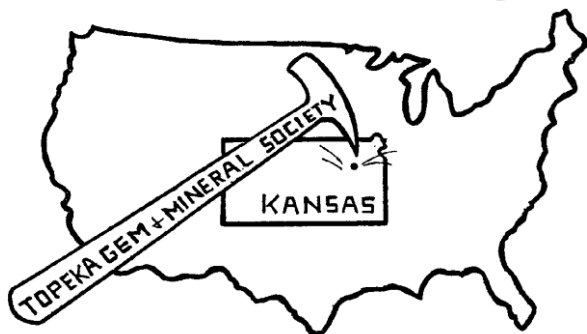


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 66, No. 2
 February 2023



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

2023 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.	Cole Collins	220-4027
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	Donna Stockton	913-645-7677
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	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.
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.

Fodder from the president. February/2023



Good day to you all.

I hope everyone survived valentines unscathed. If not, you have the rest of the year to make up for it. Out here in the country, the day consisted of making sure the birds were fed leading up to a predicted snow event and making sure the shop is ready for tonight's participants. I believe we are going to have some new folks join us.

The big thing, will be, who will be the first member to use the brand-new cabbing machine? It is all set to roll. It is all clean and shiny just raring to go. We all need to once again thank Harold Merrifield for his generosity in buying this machine for your club.

And speaking of clean and shiny, the shops are neither. They have not had a good cleaning since last fall. So, we need to find a Saturday with reasonable temperatures and have a work day out here. It is tough to guess the weather for such. It may come down to some frantic phone calls and emails a day or two in advance asking you for help. Please be willing to help us for a few hours.

Please be aware that your Dues are due. If they are not paid by March, you will not be included in the 2023 directory and will no longer receive the Glacial Drifter or regular emails. We do not want this to happen to a single one of you. You are important to us.

Your publicity committee, headed by Donna Stockton has been doing some great work that you should be proud of. Some great ideas for our fall show and other activities. Ask one of us about them. Jump in and get involved.

I am working on creating some new committees to better organize and lessen the load on the same people that create our show. Volunteer to head or help on one of these. I know that we all have many things on our schedules but, there is always a way to squeeze out some time for your club's future. I will be confronting many of you so be prepared.

The board has made the decision that those of you that create jewelry for sale will no longer be able to purchase Silver through the club for your work. There have become supply and stock issues with the materials we keep on hand. Materials for Classes and personal items will still be provided. There are plenty of resources for silver and accessories. If you are having problems finding them, ask for help.

Our next general meeting is Friday Feb. 24th. Jim will conduct the program on 'Broom casting' whatever that is. I am curious to find out. Are you?

Remember last month I mentioned the need for 'Others', need to step up and help with hospitalities.

See ya Friday

Brad

DUES ARE DUE

TTGMS Event Calendar

FEB. 2023			MAR. 2023		
1	W		1	W	
2	T		2	T	Jr RHDS 6 p.m. at FC Church 1701 SW Collins
3	F		3	F	
4	S		4	S	
5	S		5	S	
6	M		6	M	
7	T		7	T	Brad's Shop Open 6-10 pm
8	W		8	W	
9	T		9	T	
10	F		10	F	Board Meeting at Millie's 7 p.m.
11	S		11	S	
12	S		12	S	
13	M		13	M	
14	T		14	T	Brad's Shop Open 6-10 pm
15	W		15	W	
16	T		16	T	
17	F		17	F	
18	S		18	S	
19	S		19	S	
20	M		20	M	
21	T	Brad's Shop Open 6-10 pm	21	T	Brad's Shop Open 6-10 pm
22	W	Publicity Mtg Elmont Church 6:30 pm	22	W	
23	T		23	T	
24	F	General Meeting First Congregational Church 7:15 p.m. 1701 SW Collins Ave	24	F	General Meeting First Congregational Church 7:15 p.m. 1701 SW Collins Ave
25	S		25	S	
26	S		26	S	
27	M		27	M	
28	T	Brad's Shop Open 6-10 pm	28	T	Brad's Shop Open 6-10 pm
			29	W	
			30	T	
			31	F	

If you are interested in Wire Wrap Classes, contact Millie, 267-2849 or rock2plate@aol.com
 Check out the calendar on our web site www.TopekaGMS.org

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:

Jason Schulz at: Fleetcommander@att.net



Next Class: March 2, 2023, Earth Processes, 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.

We need your **BEST CHOICE UPC Labels** --

Bring them to the monthly meeting, and give them to Cinda Kunkler.



For those members that joined before October 2022. If in question see Millie. Call 785-267-2849 or rock2plate@aol.com.



Last call for Dues
The Directory will be
Printed March 1st.



The program for February 24 will be our own Jim Baer on "Broom Casting" come learn about this metalsmithing technique. Don't forget to bring your cabs, jewelry, or favorite specimen for the cab of the month contest. We will have coupons for our show in October and would like everyone's help and ideas on ways and places to get the word out. We will have refreshments and a chance to visit. Please try to arrive before 7:30 - see you there!

Cinda Kunkler, 2nd Vice President & AFMS Chairman


A belated happy Valentine's Day to you. The biggest guilt based commercial holiday of the year. Did you buy your sweetie diamonds and gold? The American jewelry industry survives on you buying into their hype. You must buy diamonds and gold on Valentines Day or you are not a worthy American. Did you know that only in this country are diamonds the number one gem of choice? In the rest of the world, Pearls rule and have for millennia.

What about lab grown diamonds? These gems are perfect. True in every facet of what a diamond is. Chemically, identical. The crystalline structure, the same. Hardness and colors are the same. In today's market, men under 30, who are the largest group of buyers, are buying a huge number of these stones as opposed to natural gems. They are much cheaper and cleaner than natural stones. What are the ethics of buying them? There isn't a real answer. What is going to happen to the market for the real thing as the percentages dwindle.

Genuine diamonds can still be identified compared to lab grown. The GIA has developed the only piece of equipment to identify genuine diamonds. There are other testers out there but they can give large numbers of false positives. The GIA's equipment uses a very specific wavelength of long wave ultraviolet light to detect Nitrogen that only occurs in natural stones. Eventually labs will figure out a way to include Nitrogen in their lab processes.

I would like to know what your opinions are on the subject.

Brad – brad7254@gmail.com



The Topeka Gem & Mineral Society has enrolled with the Community Rewards with Dillon's Store. To sign up for it, eligible participants shall be Plus Card holders and must have the card present when making a purchase. Purchases of gift cards, alcohol, tobacco, government assisted pharmacy expenses, postage stamps, Kroger CO. Stores gift cards, green dot prepaid reloadable products, MoneyPaks, 1-2-3- Rewards reloadable Visa prepaid debit card, Recharge cards, Am. Express gift Cards, Visa load gift cards, lottery & Promotional tickets, money orders, Western Union Fuel & sales tax are excluded form eligible purchases.

1. 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'."
2. You will have to re-register each year.
3. If you have any other questions email DCR@dillonstores.com

Household Products That Can Be Used As Rock Cleaners

by Betsy Martin

Safety:

Always use plastic containers, rubber or nitrile gloves, eye protection, good ventilation, and great care when handling these products.

1. Zud or Barkeeper's Friend cleansers (contains oxalic acid) - Warm or hot solutions will remove iron stains and are helpful with clay deposits. These cleaners can be used with a tooth-brush on sturdy surfaces.
2. Toilet Cleaner (the hydrochloric acid type) Dissolves calcite rapidly. *** after treating anything with an acid, rinse very carefully and soak in ample fresh or distilled water for a while to leach out any acid remaining in crystal seams and fractures. You can then follow up with a final soak in dilute Windex to neutralize remaining traces of acid.
3. Lime Away (dilute hydrochloric acid) dissolves calcite more slowly. Rinse as you would for other acid treatments (see above).
4. Calgon—Dissolve this powdered water softener in water. Use for clay removal.
5. Vinegar (Acetic acid), soda water, colas (carbonic and phosphoric acids) - Will slowly etch out very delicate fossils in limestone. Rinse as you would for other acids (see above)
6. Iron Out (iron stain and clay remover) Mix with warm water and use with good ventilation. It will lose strength if stored. Rinse with plain water.
7. Bleach— Dilute solutions of bleach can remove organic deposits and disinfect minerals collected in areas used by livestock. Rinse with plain water.
8. Hydrogen peroxide— Use to remove manganese stains. Rinse with plain water.
9. Citric acid- Use to remove manganese stains. Rinse as above for acids.
10. Windex (with ammonia) A good clay deposit remover and final surface cleanup. Works well in ultrasonic cleaners. Rinse with plain water.
11. Distilled Water— Use to clean sensitive species and as a final soak after acid treatment.

Removing Thin Coatings:

On moderately hard minerals— use toothpaste (a feldspar abrasive) and a toothbrush.

On hard minerals— use toothbrush with pumice powder and water.

On calcite (including bruised places)- quickly dip in vinegar or *Lime Away* and rinse thoroughly. Repeat. Soak in plain water afterwards to leach any acid from cracks.

Cleaning Tools:

Toothpicks, seam ripper, bamboo sticks, sewing needles in a pin vise, old dental tools, old toothbrushes, periodontal brushes, canned air, exacto knife, single edge razor blades, cheap small stiff bristle brushes.

Via *The Franklin County Rockhounder*, 5/07; via *Gem Cutters News*, 4/07; via *The Collecting Bag*, 12/06. Via *Breccia* 6/07; via WGMS April 2015

The Ellensburg Blue Agate

by Ray Killian

From The Nisqually Rockhouser, 4/01

Found only in the northwest corner of lower Kittitas Valley, near Ellensburg, is the unique stone known throughout America as the "Ellensburg Blue". This Agate is only found in a 20 to 25 miles radius from the town of Ellensburg. It is believed to have been deposited from the last glacial age. This is why one looks for the agate on the surface. Best time to look for the Agate is after the spring thaw or when farmers get their fields plowed, as both bring the Agates up to the surface.

What makes it unique and much sought after? The answers to this question can be summed up in several words, Scarcity, color range and variety, hardness and adaptability to variety of settings.

The scarcity of the stone is such that one to two ounces of cutting material in eight hour search of the rugged hills and fields where it occurs, is considered a good day's find. Occasionally one finds a stone of up to four ounces and over. Almost all of the land where Ellensburg Blues are found is posted private, or leased land and as such is closed to rock hunters except by special permission of the local rancher.

Color of the Ellensburg Blue ranges from the light, sky blue through a cornflower blue to almost purple royal blue. Clouds, streaks, or bands may occur in stones and graduates from nearly opaque to transparent. The hardness of any stone is measured on Mohs scale of 1 to 10. One being talc and ten being diamond. Using this measurement, the Ellensburg Blue will test out at from 7.5 to 8.3 or harder on the scale.

Because of its singular qualities and limited quantity, Ellensburg Blue has been reclassified by many gemologists to be a precious gem. Therefore, should you decide to purchase an Ellensburg Blue, you will not only have a truly unique piece of jewelry, but also an investment that will no doubt increase in value quickly.

I wish to thank all the people of the Ellensburg Agate shop for all the information on this one-of-a-kind agate. They were very helpful in explaining all about this Blue Agate, color, where found and even gave a map as to where would be the best place to go for a first timer. I shall share all these with you.

If you are in the Ellensburg area and have some time stop by the shop. They have a large display of Ellensburg Blue, some very fine one of kind jewelry and unmounted stones. The shop also has jewelry findings and lots of other agates and jasper and many other types of stones.

http://www.northidahomineralclub.com/articles/ellensburg_blue_agate.html
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Last call for Dues
The Directory will be
Printed March 1st

Ellensburg Blue Agate

Pseudomorphs

by Shannon Phillips

Since I became aware of them, I have been curious about pseudomorphs. The idea that minerals can be so tricky - changing from one substance to another without a change in form - perplexes me. Through my own experiments of dissolving alum and borax to grow crystals and melting bismuth to grow them as well, I understand how minerals in solution can form when they leave the water and how minerals in anamorphous form can rearrange their structure as a result of introducing heat. From baking I have a general idea of how crystals of sugar dissolve and become part of a conglomeration. In fact, the only 'A' I ever earned in high school chemistry was in the lab experiment where we made fudge. What I don't understand is how a mineral can essentially become another mineral while retaining the shape of the original instead of growing into its own.

Some of the easiest pseudomorphs to understand are those created by replacement. Petrified wood, for example, is formed when silica-rich water permeates the structure of the wood, replacing the organic plant cells with silicates that retain the cellular structure of the plant. Pseudomorphs created by this method closely resemble the form of the original. When an existing mineral becomes flooded with a mineral in solution, the original mineral is gradually removed and replaced through exposure to the material in the solution.

What's more difficult to comprehend is how some elements of an existing mineral are removed, exchanged, and replaced to produce a new mineral in the original's form. In an attempt to understand this process of alteration, I found myself entangled in a thicket of scientific journals. From this reading, I gathered that alteration can occur as a result of the introduction of water, heat, and pressure. In the ordinary cycling of water through our atmosphere, it is exposed to atmospheric agents, such as carbonic acid, and to any number of contaminants on the Earth's surface that imbue it with the power to cause chemical reactions. Repeated exposure to water can change even the most stable substances over long periods of time as they are exposed to minerals in solution. Metamorphosis can also be caused by the heat and pressure from the Earth's core. Based on my reading, I believe that water is nearly always involved in this process, too. The combination of heat and water hastens the chemical reaction, as does pressure. The combination of the three makes replacement even faster.

Infiltration and incrustation are easier to comprehend. Infiltration occurs

when a mineral trapped in a host substance such as rock or clay dissolves and another mineral fills in the space, thus retaining the shape of the original mineral. An example of this type of replacement occurs close to home when hopper-form (sometimes called ekestral) clay crystals were discovered where salt crystals had been removed by solution from the red marl of the Onondaga salt region. Incrustation is the coating of one mineral by another. The surface of the original is covered with a new mineral and may erode over time, which creates some very strange and interesting shapes. In Essex County, New Jersey, there are fine examples of quartz after glauberite. Glauberite is a very soft mineral that is easily dissolved, creating conditions that allow the quartz that coated it to retain its characteristic bipyramidal shape.

Pseudomorphs are sometimes they are so similar to the original that it takes a trained eye to tell them apart. More often, they have marked differences in color. As crystal systems change with replacement, so do hardness and cleavage. The internal structure of the mineral changes although the external structure remains the same. Some common pseudomorphs are malachite after azurite, in which the number of copper atoms is changed and hematite after pyrite, which is caused by atmospheric heat. There is no simple answer in determining how the many pseudomorphs found world-wide were formed. Each one contains clues to its particular formation, but there are few general assumptions to be made about these transformations. I have as many questions now as I did when I started, but have a clearer understanding of the generalities of pseudomorphism, and I hope I have elucidated the topic for others.

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