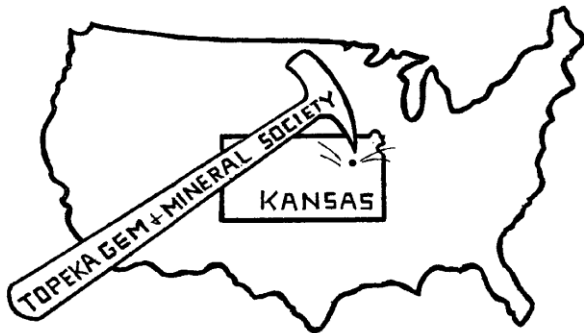


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

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. 62, No. 04,
 April 2019



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

www.TopekaGMS.org

2019 OFFICERS AND CHAIRS

President	Mike Cote	220-3272	Cab of the Month	Debra Frantz/Fred Zeferjohn	862-8876
1 st Vice Pres.	Dave Dillon	272-7804	Field Trip Coord.	Will Gilliland	286-0905
2 nd Vice Pres.	Cinda Kunkler	286-1790	Publicity	TGMS Board	
Secretary	Carolyn Brady	233-8305	Welcome/Registration	Harold Merrifield	633-9745
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	220-3272
Directors	Brad Davenport	379-8700	AFMS Scholarship	Cinda Kunkler	286-1790
	Will Gilliland	286-0905	Editor/Exchange Editor	Millie Mowry	267-2849
	Chuck Curtis	286-1790	Show Chairman	Dave Dillon	272-7804
Historian	Open		Show Dealer Chairman	Dave Dillon	272-7804
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 .
Permission is granted to reprint articles only if proper credit is given to the author, Glacial Drifter and the date.

Words from Our Top Rocks!



Work has started on the barn but will take a while to complete before lessons can begin. We have sent out a list of Survey questions to each member of our Club in hopes to get some feedback on what you want as a valued member of the Club. Please return the Survey by May 24th in the self addressed stamped envelope.

As a reminder in the months of June, July and August, there will not be a regular club meetings, but, we will have pot-luck picnics at Millie's house on the 4th Friday of the month at 6:30 p.m.

Mike Cote` & Dave Dillon

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



Program for the April 26, 2019 meeting:

“Crinoid Diversity”

By

Steve Wagner, Lawrence, Kansas

Cinda Kunkler, 2nd Vice-President.

Toothpaste-Not just for Teeth

Toothpaste — Can be used for a multitude of things besides brushing your teeth.

Carry a small tube during a backpacking trip as an all-purpose soap. After all, it is designed to be a cleaner, a polisher and a mild abrasive.

If you are an RV'er toothpaste makes an excellent and surprising cleaner and polish for stainless steel folding stove tops, stainless steel bathroom and kitchen sinks, chrome plated appliances, to remove the gooey bottom from plastic sun-tea jars, to clean tea and coffee stains from plastic dishes and plastic glassware.

A little foamy toothpaste on tiny mirrors in a camper help to keep them from steaming up. (Source: DGMS Rock Chips 4-19)

JR ROCKHOUND Classes & Reminders

Here are reminders of the next few months of classes: Topeka Shawnee CO Public Library sign in starting at 6:00pm 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

- May 2, 2019, Special Effects, 101A, Marvin Auditorium,

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



New: Trading Cards will be given to each Junior Rockhound for the following:

- ✓ For attending each Class meeting.
- ✓ For turning in homework assignments in a timely manner.
- ✓ For attending the general meetings.
- ✓ For helping out at the show or any other TGMS demonstration.
- ✓ For putting on a program for the general meeting.



minerals and

Once you have collected 9 Trading Cards you will be given a special gift, and each time you have collected an additional 9 Trading Cards another gift will be given. These cards will be fun to collect and they are very educational. You will learn about all the rocks, fossils in the collection. Let's have some fun collecting!



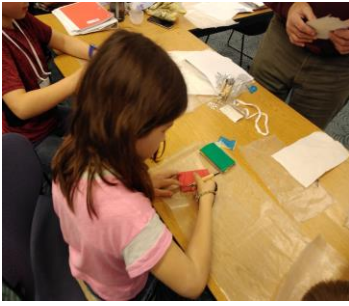
Junior Rockhound's and Parents, please watch for monthly emails from Brad Davenport as he will be sending out reminders of the up-coming class and any other important information you may need. His email is Brad7254@gmail.com.

This month's Junior Rockhounds class was Earth Processes, conducted by Brad Davenport. The kids (and some adults, too) got into learning about the various ways the Earth is shaped and molded over time. Brad had a couple of activities for the kids, and it looked like everyone had fun.

The next class is Special Effects on May 2nd in room 101A at the Topeka and Shawnee County Public Library. Sign-in starts around 6:00pm and class starts at 6:30. See you then! Jason Schulz



Brad teaching Earth Processes Class



TG&MS Field Trip May 4, 2019

To the Great Salt Plains of Oklahoma to collect gypsum crystals. This location is about 250 miles southwest of Topeka. The most direct route is to take the Kansas Turnpike to Oklahoma and then take Oklahoma Highway 11 to the Great Salt Plains Reservoir area.

This site is noted for the formation of gypsum (selenite) crystals that can include sand grains that form an hourglass pattern. The collecting site is on land managed by the U. S. Fish & Wildlife Service, which allows collecting from sunrise to sunset April 1 to October 15 of each year. They rotate through several collecting site each year allowing new crystals to grow within the sediments under the salt plains. The crystals cannot be collected for sale, but only for individual use and collections. There is a day limit of 10 pounds of crystals and one large cluster per person. Do not disturb the birds or other wildlife. Please note, we do not need to refill the collecting holes. Some of the birds eat brine flies that hatch in the water and some use the sand piles to nest on to get above possible flooding.

Please let me know if you plan to attend the trip. Also please check in with me at the site so that I can maintain records of who attended and for insurance coverage.

The salt plains can become very hot due to the sun reflecting off the white salt deposits. As a result it is a good idea to start collecting as early as possible in the morning before it gets too hot

There is camping at the Great Salt Plains State Park near Jet, Oklahoma. The phone number is 580-626-4731. One family has already arranged to stay at the state park and would like others to join them.

For those that wish to stay at motels there is one at Cherokee, Oklahoma. The Cherokee Inn, phone number 580-596-2828 or <https://cherokeeeinnoklahom.wixsite.com/cherokeeeinnoklahoma>; the inn and the Cherokee Station (food) were recommended by Dustin Kuntz who collected there last year.

There is also a motel at Jet, Oklahoma, the Salt Plains Motel phone 580-626-4646.

What do you need for collecting?

Protect yourself from the sun! That includes the reflected sun from the salt. Bring plenty of water! There is none that you can drink on the salt plains. Be sure to wash the salt off your car afterwards. There are no bathrooms at the site or food, pack what you will need.

Dustin said to plan to get dirty and wet. He suggests a round nose shovel to dig the hole and hand trowels to move additional sand out. He used plastic butter containers to transport.

How is it done? From the U.S. F&WS

1. Use a shovel to dig a hole about two feet deep and two feet across until you reach wet sand. You may feel the shovel break through crystals as it goes down. This cannot be helped as there is no way of predicting exactly where a bed of crystals is located.
2. Allow two or three inches of water to seep in from the bottom.
3. Use your hand or a container to splash water gently against the sides of the hole. The agitated water will wash the soil away from the crystals.
4. When you find a crystal formation, continue splashing to wash it free of the supporting sand and clay.
5. At this stage of the process, the newly exposed crystals are wet and fragile so use great care removing them.
6. After removing crystals from sand, place them where the sun and wind will dry them. Egg cartons or other containers are recommended for transporting the crystals.

If you have questions, e-mail me or see me at the TG&MS meeting April 26.

Will Gilliland, Field Trip Coordinator

TGMS Event Calendar

April 2019		May 2019	
1M		1W	
2T		2T	Wire Wrap Class @ Millie's 1-3 p.m. TGMS Jr RHD's, Marvin Auditorium 101A 6 P.M.
3W		3F	
4T		4S	Field Trip to Great Salt Plains--Oklahoma
5F		5S	
6S		6M	
7S		7T	Wire Wrap Class @ Millie's 6-9 PM
8M		8W	
9T		9T	Wire Wrap Class @ Millie's 1-3 p.m.
10W		10F	BOARD & SHOW MTG 7 PM MILLIE'S
11T		11S	
12F		12S	
13S		13M	
14S		14T	Wire Wrap Class @ Millie's 6-9 PM
15M		15W	
16T		16T	Wire Wrap Class @ Millie's 1-3 p.m.
17W		17F	
18T	Wire Wrap Class @ Millie's 1-3 p.m.	18S	
19F		19S	
20S		20M	
21S	EASTER SUNDAY	21T	Wire Wrap Class @ Millie's 6-9 PM
22M		22W	
23T	Wire Wrap Class @ Millie's 6-9 PM	23T	Wire Wrap Class @ Millie's 1-3 p.m.
24W		24F	General Meeting @ Washburn TGMS 7:30 pm, rm 138 Stauffer Science Hall, program TBA.
25T	Wire Wrap Class @ Millie's 1-3 p.m.	25S	
26F	General Meeting @ Washburn TGMS 7:30 pm, rm 138 Stauffer Science Hall, program 'Crinoid Diversity' By Steve Wagner, Lawrence, KS. Wichita Show---coupon on page	26S	
27S	Wichita Show	27M	
28S	Wichita Show	28T	Wire Wrap Class @ Millie's 6-9 PM
29M		29W	
30T	Wire Wrap Class @ Millie's 6-9 PM	30T	Wire Wrap Class @ Millie's 1-3 p.m.
		31F	

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

Minutes of TGMS General Meeting

March 22, 2019

Meeting called to order by President MIKE COTE. 30 members present. The door prize drawing winners are: Shirley Schultz red jasper; Ian Schultz; Debbie Scanland gastropod

Minutes of the last meeting were E-mailed and were accepted.

Budget for 2019 was given. Budget accepted as presented. No bills were presented.

Correspondence: none

Old business: none

New business: Brad Davenport reports Greta Anderson, has an old flat lap and saw for sale.

Junior Division: Andrew Newman earned his badge for fossils. Congratulations Andrew.

Field trips: 1 April 6 Meet at Hollywood theater at 9am. We'll be going to Calhoun Bluffs and Rockytop Ranch in Jackson County north of Mayetta. This is a Jr. Rockhound and 4-H trip.

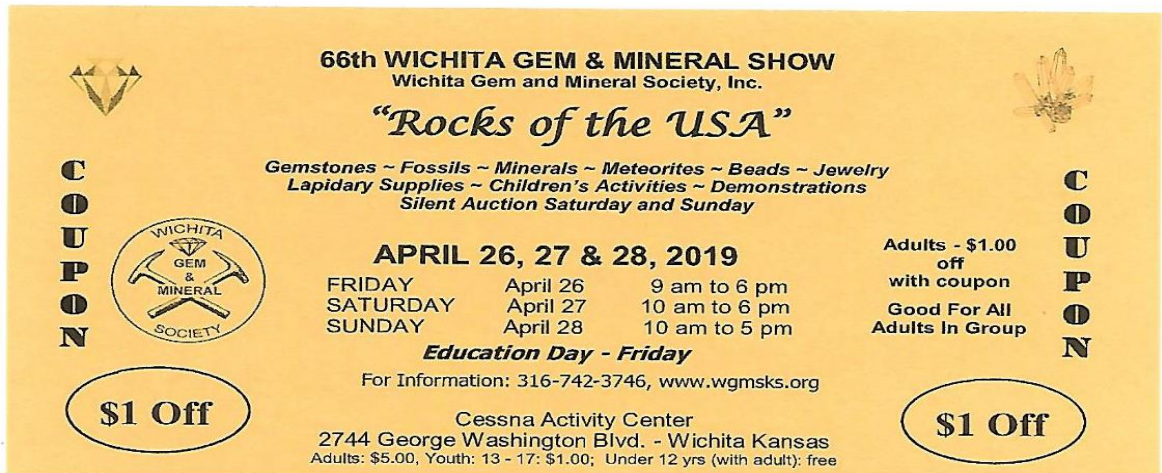
2. Club trip to the Great Salt Plains salt flats to collect hourglass shaped salt crystals. There will be more in the next newsletter.

Meeting was adjourned to the program. The program consisted of taking pieces of paper and drawing our best ideas for cabochons. The winners are: Thunder egg-Tex Wampler: Granite Pat Gilliland:

Chevron amethyst, Ian Schultz: Turritella, Barbara Florence: Flame agate, Russ Miller

Cab of the month: Cab category: Brad Davenport-Jasper: Jewelry: Millie Mowry petrified palm root.

Submitted by: Carolyn Brady



66th WICHITA GEM & MINERAL SHOW
Wichita Gem and Mineral Society, Inc.

"Rocks of the USA"

Gemstones ~ Fossils ~ Minerals ~ Meteorites ~ Beads ~ Jewelry
Lapidary Supplies ~ Children's Activities ~ Demonstrations
Silent Auction Saturday and Sunday

APRIL 26, 27 & 28, 2019

FRIDAY	April 26	9 am to 6 pm
SATURDAY	April 27	10 am to 6 pm
SUNDAY	April 28	10 am to 5 pm

Education Day - Friday

For Information: 316-742-3746, www.wgmsks.org

Cessna Activity Center
2744 George Washington Blvd. - Wichita Kansas
Adults: \$5.00, Youth: 13 - 17: \$1.00; Under 12 yrs (with adult): free

C O U P O N

Adults - \$1.00
off
with coupon
Good For All
Adults In Group

\$1 Off

\$1 Off

HOMEMADE AIR FRESHENERS - Mary Beringer

This project takes a total of five minutes to make, is highly economical, and each jar should last you about a month. This would also make great gifts!

To make these little beauties, you first need heat-proof jars, food coloring colors of your choice, and essential oil. You can find inexpensive essential oils of various scents at craft stores and some grocery stores. I chose a raspberry scented oil... it smells delightful.

Into each jar, drop a few drops (I repeat...a few...it doesn't take more than 2 or 3) of food coloring. Then, put in about 30 drops of essential oil, give or take. The more essential oil you put in, the stronger the smell.

Now for the fun part. Gather up 4 envelopes of unflavored gelatin, a tablespoon of salt, and 2 cups of cold water. Why salt? Salt (or vodka) apparently will help keep the gel from molding. Interesting fact, isn't it?!?

Get one cup of water boiling on the stove. When it begins to boil, whisk in the gelatin, stirring until it's all dissolved. Then, pour in the other cup of cold water and the salt, stirring until the salt is dissolved.

Quickly pour the hot gelatin mixture in each of your jars, and then use a disposable stick or spoon to stir it into the oil and food coloring.

Let these gel overnight, and then voila! Air freshener!

(Source: DGMS Rock Chips April 2019)

The Historical Significance of Turquoise

By Nancy L. Attaway

Turquoise brought together many diverse cultures that shared a passion for the sky blue stone. Mined from many locales, turquoise affected trade and culture. Persian merchants first introduced turquoise to the trade in Western Europe from their travels through Turkey. A French interpretation developed a name for this “Turkish stone” that evolved into the word “turquoise”. The Moors of Spain obtained the popular blue stone from the mines in North Africa. The Spanish called the stone “turquesa”.

Turquoise held a special place in the many cultures of North, Central, and South America. The stone forged alliances and established relationships between the many and diverse groups. The mines in North America extended from the desert regions of California to Colorado, including Arizona and New Mexico. The turquoise mines in New Mexico attained a particular historical importance.

The most extensive prehistoric mining venture in America occurred in the hills near Cerrillos, New Mexico. Working with stone axes, mauls, picks, and chisels, turquoise miners dug many tunnels in the hills. Miners carried out tons of overburden in leather buckets to reach the turquoise. Wood hauled to the mine sites fueled the fires for heating the rocks. Buckets of water, also transported on the shoulders of the workers, quenched the heated rocks to break up the chunks.

Pre-Columbian Mesoamerican society fueled a great demand for turquoise. The stone evolved into a prestigious symbol equated with life itself. Words of wisdom compared precious turquoise to individual worth, representing it as important as water. Turquoise commanded a powerful place in religious ceremonies and social functions.

A highly structured and formal trade system for turquoise developed between the cultural regions of Southwestern America and the cultural centers of Central and South America. Turquoise provided the means for contact between the various societies in these cultural regions, who considered turquoise an extremely important trade item. The channels of communication opened by this trade encouraged intercultural exchanges between the many different societies. The religious meaning of turquoise spread among these societies, who adopted this belief into their own cultures.

Turquoise preserves well and lends itself to archaeological dating. Archaeologists recovered more than a million pieces of turquoise throughout Southwestern America and Mesoamerica for study. Chemical analysis allows investigators to discover whether one turquoise specimen relates to another.

This applies to items found at locations separated by great distances, as well as for items that represent different time periods or cultural periods.

Two scientists proved that turquoise mined from one region was identical to the turquoise used in another region. Dr. Garman Harbottle and Dr. Phil C. Weigand studied the artefactual use of turquoise for over twenty years. Combining nuclear science with archaeological disciplines, they applied a fingerprinting technique to turquoise known as neutron-activation analysis. Used on pottery and other archaeological artifacts, this method is nondestructive.

To implement the neutron-activation analysis, a beam of neutrons hits a turquoise sample in a nuclear reactor to create the many isotopes of the trace elements found in turquoise. Each chemical element in the stone becomes radioactive and emits its characteristic gamma rays. Certain definite quantities of these elements identify turquoise from specific mines.

Compositional patterns or profiles of these quantities indicate a common origin. Dr. Harbottle and Dr. Weigand published their extensive research and conclusions in the February 1992 Issue of Scientific American.

Much of the turquoise used originated from the mines near Cerrillos. Well documented trade routes existed to the south, and turquoise from Cerrillos traveled south to Mexico and South America. Archaeological sites in Central and South America yielded turquoise identified from the mines near Cerrillos.

Chaco Canyon contained many of the most substantial archaeological finds of turquoise ever produced. The trading hub at Chaco Canyon seemed to control the distribution of turquoise much like DeBeers controls the diamond distribution. Dr. David Snow of the Museum of New Mexico deduced how turquoise became concentrated at Chaco Canyon. Neutron-activation analysis revealed a direct link between the turquoise trade at Chaco Canyon and turquoise excavated from other sites in Southwestern America. Turquoise in artifacts from sites in Mexico matched the turquoise from Chaco Canyon, mined in Cerrillos.

What people regarded as turquoise treasures then remains treasured today. Modern artisans combine turquoise with gold, silver, coral, opal, and many different colored gemstones to create an updated appreciation for the ever popular sky blue gem. Holding a turquoise nugget in the palm of the hand feels like clasping a piece of ancient American history. Whether worn for protection, enlightenment, or beauty, turquoise continues to be a cherished gemstone today.

Further reading recommended: “Turquoise in Pre-Columbian America” from the February 1992 Issue of Scientific American; “Roots of the Turquoise Trade” from the June 1996 Issue of Lapidary Journal; and the special feature spread on turquoise from the February 1995 Issue of New Mexico Magazine.

http://www.attawaygems.com/NMFG/Historical_significance_of_turquoise.html (Source: WGMS April 2019)

Minerals of the Museum: Sapphire

Stacy Walbridge



An eye-catching mineral in the North Carolina room at the museum is Sapphire, but Sapphire is not really a mineral. Sapphire is the name given to a variety of different colors of Corundum (Al₂O₃) except for red, which is reserved for Ruby. Sapphires may come in many different colors depending on trace chemicals that are present during crystallization. If iron is present, a very pale yellow to green color may be seen, if both titanium and iron are present the result may be a deep-blue color. Having a Mohs hardness of 9, gem quality sapphires make excellent faceted gemstones and are highly valued.

If Sapphire has inclusions of Rutile it may show a six-rayed star pattern known as asterism and may be called a star Sapphire. Occasionally, twelve-rayed stars are seen when Hematite is present during crystallization. Typically, the Rutile will reflect a white star while the Hematite will result in a golden yellow star.

It is not uncommon to find Sapphires in the Franklin area with Chunky Gal and Corundum Hill minutes away. Field trips to Buck Creek and the Cullasaja River have resulted in members finding many different varieties of Sapphires. Perhaps on a future field trip or outing you may find the mineral that is not a mineral.

Word Search for Sapphire

To prepare you for finding Sapphire in the field you can look for Kyanite and other words in the following word search puzzle. The words are hidden and may be spelled in any direction

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J E X X P U I G E C F R U T I L E Z G T
U Y D C S L H R M C F S J B Y A A E X W
K F P S E A C I Y C M C P B U U M X H Q
E Q Q Z K E E R C K C U B F A F X V I E
U Q I C W N O I T A Z I L L A T S Y R C
D K J E X R U B Y M G H M S N E N I Y V
B S T O I C K W Q H Z U C H R D E C L S
B H M H X G O V O I W G H E O I W L T P
R Z S X X D F R K N P K N M I H J A R B
J U I U G Y R H U G N H K A G E R P T B
A M R C S J B S Y N B T B T Z I V O N O
A A E U Y A Z H P P D Q Q I U Y W E H L
O F T P B T P G X V S U W T F O Z F A B
L T S T B E R P W R W H M E G Z X R T X
O Z A F B L U E H W W L H V J C E T N P
Q Q W G F Y P M Z I T C R V G N K P B B
O D K V Q F T A N W R W I O I J K E J X
P A J A S A L L U C B E N M N A B P H W
W T Q J I T X W E D D J Y F X N L K X Y
V K N V F N O T Q T E P T O K C H C B E
    
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Word List

- ASTERISM
- BLUE
- BUCKCREEK
- CORUNDUM
- CRYSTALLIZATION
- CULLASAJA
- HEMATITE
- MINERAL
- RUBY
- RUTILE
- SAPPHIRE
- STAR

(Source: The Mtn Gem 9/18)