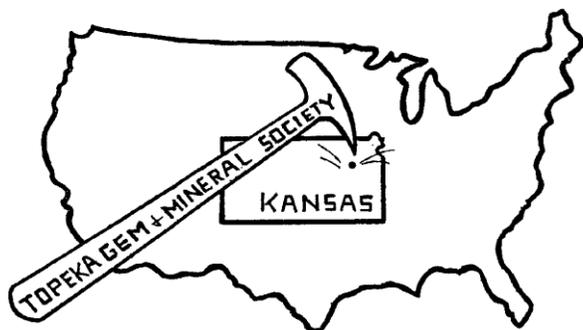


The Topeka Gem and Mineral Society, Inc.
 1934 SW 30th St. Topeka, KS 66611
 Rock2Plate@aol.com

THE GLACIAL DRIFTER



www.topekagemandmineral.org

Facebook: Topeka Gem and Mineral Society Field Trip

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. 57, No. 04, Apr. 2014

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.**

2014 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.	Larry Henderson	-----
2 nd Vice Pres.	Carolyn Brady	233-8305	Publicity		
Secretary	Cinda Kunkler	286-1790	Welcome/Registration	Jason Schulz	379-5538
Treasurer	Millie Mowry	267-2849	Property	M. Cote/D. Dillon	379-5538
Directors	George Reed	836-9277	AFMS Scholarship	Cinda Kunkler	286-1790
	Harold Merrifield	286-3548	Editor/Exchange Editor	Millie Mowry	267-2849
	Chuck Curtis	286-1790	Show Chairman	Harold Merrifield	286-3548
Historian	Deborah Scanland	273-3034	Show Dealer Chairman	Dave Dillon	272-7804
Federation Rep	Harold Merrifield	286-3548	Show Secretary	Cinda Kunkler	286-1790
Corporation Agent	Millie Mowry	267-2849	Jr. Rockhound Leader	Larry Henderson	-----
Librarian	Lucy Hrenchir	267-3325			
Web Master	Jason Schulz	379-5538			

Area Code for all numbers is (785).

CLUB VESTS/BADGES

Any one that is interested in ordering the blue club vests at a reasonable cost contact Millie at rock2plate@aol.com or 267-2849. We need 7 or more orders to get the better price of \$14.31 plus Shipping.

The size range is:

Small	30-32
Medium	34-36
Large	38-40
XL	42-44
2XL	46-48 add \$3
3XL	50-52 add \$5

They are high quality twill fabric, 65% Polyester/35% cotton with wrinkle resistant and soil releasing finish and 2 pockets.

For club name badges they run less than \$9 if you want one contact me also.

Words from our V. P.

I though that we had a great turnout for our March meeting and that everyone enjoyed the program that was presented that night. A reminder to everyone to let your officers know what you would like to see at the meetings in programs and the show in the way of case displays. We do need someone to step up to take on the job of making sure that all the display cases are filled this year at our show. Please let either Harold or myself know if you are interested in doing this for us. Look forward to seeing everyone at the classes. Not too much longer before we start. Temps should start to stay warm enough to start up again we hope! Dave-

Fieldtrip Calendar - March 2014

- The first and third Tuesday night the Fossil Special Interest Group will meet at 7:00 p.m. at Baker's Dozen, 4310 SW 21st St, Topeka, KS. We will discuss fossils and other collections. Come join us with show and tell.
- Apr. 26, Wichita Gem and Mineral Show. If anyone is interested in a one day trip down on Saturday, let me know. Otherwise, I may stay overnight in Wichita.
- May 6, 7:00 p.m. Fossil Special Interest Group, Show & Tell, at Baker's Dozen, 4310 SW 21st St, Topeka, KS
- Ken Stalder is planning some Field trips, one of them to Holliday Drive and I-435. He says we are invited. No dates have been set yet. Watch the calendar at the link below.

Public Facebook Page: <http://www.facebook.com/pages/Topeka-Gem-and-Mineral-Society-Field-Trips/92795058262>

An up-to-date Calendar can be found on the Topeka Gem and Mineral Society Website:

<http://topekagemandmineral.org/calendar.html>

Trips dates are tentative and subject to additions and change. E-mail Larry if you have an interest in any of these trips

LHenderson85@gmail.com Larry Henderson, Field Trip Chairman

Up Coming Show Dates

April 25-27: Wichita Gem Show—Cessna Activity Center, 2744 George Washington Blvd.; Fri. 9-7, Sat. 10-7, Sun. 10-5; adults \$5, students (12-17) \$1, children free with parents; contact Gene Maggard, 8318 S.E. Hwy. 77, Leon, KS 67074, (316) 742-3746; e-mail: gandpmaggard@gmail.com

For additional listings of gem shows see www.rockngem.com

WE NEED BEST CHOICE UPC LABELS

JASPER OR AGATE? A SIMPLE DISTINCTION

by Dave Olson

Jasper and agate are the rocks we hobbyists deal with most often in pursuit of our goals as lapidaries and collectors. Do we really understand the difference between the two? Often, confusion arises when attempting to describe a specimen as either a jasper or an agate. In the following notes I will attempt to clear up some of the nomenclatural fog which often shrouds our ability to communicate accurately.

To begin with, both jasper and agate are composed of extremely fine interlocking quartz crystals called cryptocrystalline quartz. As such, they are both members of the fine-grained quartz family referred to as chalcedony. Chalcedony occurs throughout the world in beds, bands, nodules, geodes, botryoidal masses, as a replacement of fossils, wood tissue or other minerals, and as a cementing material. It is deposited from silica-rich waters, often carrying other mineral impurities.

It is the presence of these mineral impurities which stain the micro-quartz grains to produce the wide variety of colored patterns, banding effects and inclusions that differentiate the basic "gem" forms of cryptocrystalline quartz - jasper and agate - from ordinary drab chalcedony.

O.K., so what about the differences? In general, agate is a transparent to translucent form of chalcedony in which the coloration takes the form of regular bands, rings, clouds, wispy inclusions or distinct groups. Agate containing straight or concentric bands is referred to as fortification agate. Moss agate contains delicate wispy or lacy inclusions of coloring minerals, often the green mineral, which penetrated cracks in the silica gel matrix prior to hardening. Now they remain as fine picture-like images. Agates are usually named by employing the geographical area where it is found with a descriptive adjective, i.e., Friday Ranch Plume Agate.

Jasper, on the other hand, can be somewhat translucent but is most often opaque. The coloration of jasper is usually much darker than that of agate and is totally random with respect to distribution and pattern. Finely divided hematite gives the color to reddish jaspers and another iron mineral, goethite, is responsible for yellows and brown. Chlorite and nickel-minerals contribute to green coloration. As with agate, jasper comes in many colors and displays almost an infinite variety of patterns. Because of these properties it is an extremely versatile material for cabs, scenic "pictures" to be framed, and other functional and decorative purposes. It is truly the bread and butter "gem" of our hobby.

Source: Rockbound Rambling, via El Monte Gem Scoop, via TULE SMOKE SIGNALS 4/85, Reprinted from The Glacial Drifter Nov. 1988.

THE REMARKABLE EYE OF A TRILOBITE

The eyes of trilobites, small extinct anthropoids of the Paleozoic Era, have been found to possess sophisticated, glass-like lenses capable of producing clear images over a wide depth of field.

The lenses owe their remarkable properties to their impregnation with the mineral calcite, specifically calcite with its crystal structure arranged as precisely as to produce the optical properties of glass, says Kenneth M. Towe of the paleobiology department of the Smithsonian Institution.

The crystal orientation is so accurate and consistent from specimen to specimen that it must have been due to a process of biomineralization. The "calcite lenses", says Towe, "must have been present during the life of the animal".

To study the optics of the lenses, Towe embedded specimens in clear epoxy, face down on glass slides and looked at objects through the eyes with a microscope. The result was inverted images that stayed in focus from a few millimeters to optical infinity.

A few living arthropods have calcified lenses in their eyes, but their poor crystal orientation would produce double vision.

Sources: Natural Science, via Deming Rock Chips, via PICK AND PACK 10/86, reprinted from The Glacial Drifter Sep 1988.

SOAPSTONE

The Chinese have treasured soapstone for centuries and used it to carve their delicate figurines. The Eskimos use it to make lamps and cooking pots. In ancient Babylon, it was used to make signet rings and other items of jewelry. In North America, the early pioneers used it to make laundry tubs. But this is not why it is called soapstone. The mineral gets its name because the waxy polished surface looks and feels like soap.

Geologists classify soapstone as a hydrous magnesium silicate and call it 'steatite', a mineral related to talc. Its main ingredients are magnesium oxide, silicone, and moisture. It is one of the softest of stones, easily carved with a knife. Its colors may be pearly or bluish gray, milky white, or pastel yellow. A few rare samples are a vivid apple green. Some are opaque, others are translucent like foggy glass.

Since early times,, artists have treasured its lovely colors and soft carve-able qualities. It makes durable linings for boilers and electric furnaces because it insulates both heat and electricity. It resists all stain and corrosion, and is used for laboratory table tops. As a filler ingredient, powdered soapstone gives body to certain papers and paints and a spreading quality to face powder.

Soapstone is classified as a metamorphic rock, a mineral completely altered from its original form by tremendous forces within the earth's crust. The original form was mostly like lava, rich in magnesium and silicates fused in the furnace of some ancient volcano. For ages it was buried amid the seething activity of growing mountains. Steaming underground water and enormous pressures gradually remodeled and refined its texture. The original mineral was metamorphosed, completely changed into something quite different. The various colors were added traces of magnetite, chlorite, mica and other ingredients that seeped into the recipe.

Considering its long history of hardships, it is not surprising that soapstone has learned how to resist heat, electricity and corrosive acids. But it is surprising that the lovely soft material is not marred by its past experiences.

Most of the world's steatite minerals are mined in North America, and both soapstone and talc, its somewhat softer relative, are found in the western mountains of California. More massive deposits are in the Appalachians. Near Schuyler, Virginia, the soapstone mines are along a belt 30 miles long and occur in blocks, some thicker than 300 feet and more than 1500 feet long.

Source: via The Agate Picker, Pebble Pusher, Smoke Signals, via ROCK. CHIPS

If you have a soapstone carving which has begun to look a little dull, heat the object in the sunlight, and while it is still warm, apply paste wax. Rubbing should restore the soft lustre. This same treatment can be used for an emergency touchup of a jade bracelet. An electric light bulb, or other moderate heat source, may be used instead of the sun.

Source: via Rockbound Roundup, Pebble Pusher, Smoke Signals, via ROCK CHIPS

To polish soapstone, cut the shape desired with a hand saw. Carve to shape with a knife. Sand with 200 - 400 grit sandpaper. Smooth with 000 steel wool. Heat in strong sunlight or warm oven until warm to the touch. Rub with clear paste wax while talc is still warm.

Source: via Diggin's-from Dakota, via other bulletins, via PROSPECTORS PICKINGS; all was reprinted from The Glacial Drifter March 1983

MAKE YOUR OWN CARVING ROCK

Want to try your hand at carving? Make your own "rock"! It's easy even for the kids, and what's more, it will look exactly like you'd collected it, it will be almost white and have a granite-like texture.

INGREDIENTS: 1 part water, 1 part plaster of Paris, and 12 parts vermiculite (found at a building supply store). Mix in a plastic bucket. **CAUTION:** DON'T pour any of the mixture down the sink. Pour mixture into a clean milk carton and let set for four to five days. To harden quicker, reverse the process by using more plaster of Paris. Clean bucket with paper towels.

Carving can be done with simple kitchen tools. Use your imagination and have fun! After drying for about a week, your sculpture can be painted or left in its natural state.

Source: from Sooner Rockologist, via MINERALSCOOP; reprint from The Glacial Drifter March 1983

Did You Know

That there are bird's nest of volcanic glass? At least three species of birds in Hawaii National Park are known to build their nests out of spun volcanic glass. Droplets of lava squirt into the air, then solidify into filaments known as "Pele's Hair". Thousands of the delicate fibers are used by the birds in building a single nest.

Source: Chips & Tips, Via S. C. R. I. B. E. Autumn/83, The Glacial Drifter reprint March 1985.

This was intriguing so I went out to Wikipedia the free encyclopedia to look it up. This is their description.

Pele's hair /ˈpeɪleɪz ˈheər/ is a geological term for volcanic glass threads or fibers formed when small particles of molten material are thrown into the air and spun out by the wind into long hair-like strands.^[1] The diameter of the strands is less than 0.5 millimetres (0.020 in), and they can be as long as 2 metres (6.6 ft).^[2] Pele's hair is gold or golden-brown,^[3] and commonly found downwind from active vents.^[4] Pele's hair is primarily a scientific term used by volcanologists. Pele's hair is named after Pele, the Hawaiian goddess of volcanoes.^[5]

References]

1. MacDonald, Abbott, and Peterson, p. 16.
2. Gill, p. 31.
3. Lopes, p. 79.
4. Morey, p. 170.
5. Nimmo, p. 86.



Pele's hair caught on a radio antenna mounted on the south rim of Pu'u 'Ō'ō, Hawai'i, July 22, 2005



Pele's hair on a pahoehoe flow at Kīlauea Volcano, Hawai'i, March 27, 1984

Millie Mowry, Editor

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TOPEKA JUNIOR ROCKHOUNDS

Our members, Patrick Sandquist, Thomas Schulz, Robert Schulz, and Ian Schulz have all completed the requirements for the Maps Badge. Congratulations Boys!



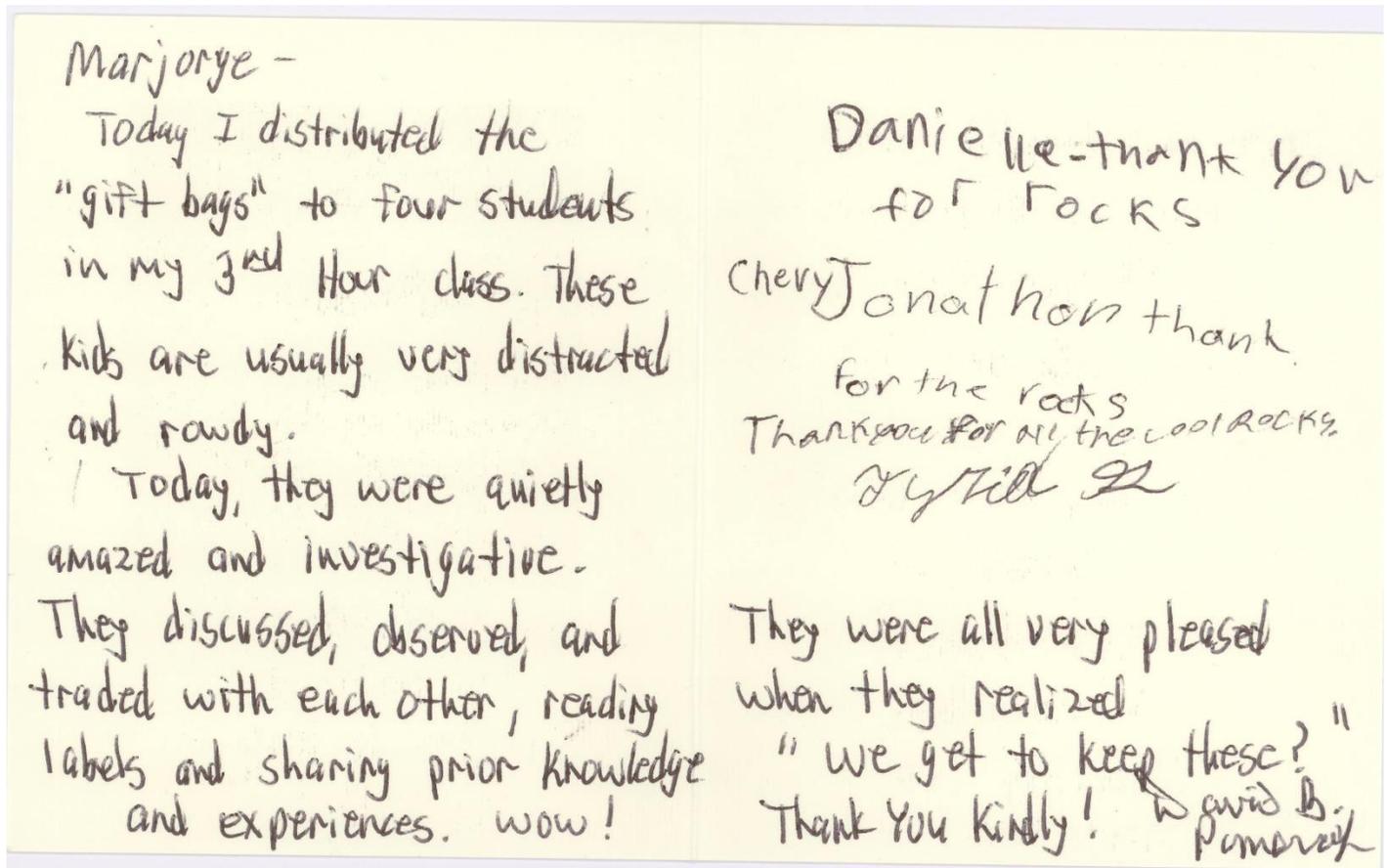
Maps

Our next meeting is May 1st at the Town & Country Christian Church at 6:30.

The classes being taught are Communications with Jason Schulz and Earth Resources with Carolyn Brady and Pat Gilliland.

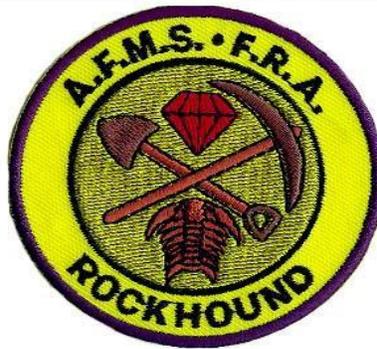
-Shirley Schulz

One of our members, Marjorye Heeney, received this thank you from David Pomeroy's science class and wanted to share it with all. She is a "wonderful ambassador for our club."



Topeka Junior Rockhounds

Facebook: <http://www.facebook.com/TopekaJuniorRockhounds>



Juniors Corner: Metals Quiz Test Your knowledge.

1. Rust is formed from Iron and what other element?

- A. Hydrogen
- B Nitrogen
- C Oxygen
- D Sulfur

Answer: _____

2. Which of these metals is a liquid at room temperature?

- A. Lithium
- B Mercury
- C. Beryllium
- D.Osmium

Answer: _____

3.Which of these metals is found in a chemically pure state in nature?

- A. Iron
- B. Lithium
- C.Copper
- D. Gold

Answer: _____

4. In its simplest form, Bronze is an alloy of which metals?

- A. Copper and Tin
- B. Copper and Zinc
- C. Copper, Zinc and Nickel
- D. Copper, Tin, Lead

Answer: _____

5. The property of a metal to be drawn into wire is:

- A. Ductility
- B. Hardness
- C. Strength
- D. Malleability

Answer: _____

6. True or False Metals are generally good thermal and electrical conductors.

7. Galvanized metals are those which have been covered with a thin sheet of

- A. Copper
- B. Chromium
- C. Zinc
- D. Tin

Answer: _____

8. What metal is associated with the minerals azurite, turquoise and malachite?

- A. Zinc
- B. Copper
- C.Tin
- D. Silver

Answer: _____