



Unakite

By Lawrence Skelton, Wichita Kansas

During the W.G.M.S. Gem and Mineral Show this past April, I was asked the identification of a salmon-pink and pistachio-green rock among others on the silent auction table. I replied “unakite” which elicited a second question, “What’s it made of?” A look and my reply, “It seems to be feldspar and probably epidote – the green stuff is epidote.” That was satisfactory and the “customer” wrote down a bid and departed.

I gave little thought to the exchange until a few days ago (in June), the thought returned, “Exactly what *is* unakite and how does it form?” Unakite or unakyte, as it originally was spelled, was identified and named in 1874 by Professor Frank H. Bradley, a geologist at East Tennessee University. He named it from its location in the Unaka Range in the Blue Ridge Physiographic Province which also contains the better-known Great Smoky Mountains and described it in the *American Journal of Science* as “an epidotic rock...on the borders of Tennessee and North Carolina.” It since has been identified in many places around the world, occurring in metamorphosed granite and in glacial outwash or stream gravel derived from granitic areas. Since it contains both feldspar and quartz, essential minerals which define granite, unakite may be classified as a type of coarse-grained granite. Quartz is a minor constituent in unakite and usually is colorless to gray or bluish-gray. In some Virginia unakite deposits, the feldspar is red to orange.



Unakite Carving

Thomas L. Watson in *Granites of the Southeastern Atlantic States* (U.S.G.S. Bulletin 426) published in 1910 amplified Bradley’s description, noting that “Unakite is composed of nearly equal parts of orthoclase and microcline, a little plagioclase [all feldspars], quartz, a little biotite, zircon, apatite, rutile and magnetite. Secondary minerals are a colorless and a green mica, epidote, chlorite and kaolin.”

Biotite, zircon, apatite and magnetite are fairly common accessory minerals in granite. Chlorite often occurs in metamorphic rocks and in igneous rocks where it is formed by the alteration of pyroxenes, amphiboles or biotite. Kaolin (a clay which principally is the mineral kaolinite) is always a secondary product formed by the hydrothermal alteration of aluminum silicates, very often feldspars. Much of the granite in the Unaka region is gneissic; that is, it has been subjected to intense folding with accompanying high pressures, temperatures and injection of super-heated water. The hot water altered any plagioclase feldspar and probably introduced or mobilized a bit of ferrous iron, converting the feldspar to epidote. The iron, a necessary part of epidote, accounts for its green color. Quartz likely was present in the original granite.

John Sinkankas in *Gemstones of North America* identified unakite localities in Page, Madison and Rockbridge counties, Virginia and in Madison and Yancey counties, North Carolina and adjacent Sevier County, Tennessee. It is to be found in glacial drift around the shores of Lake Superior. The writer has found unakite pebbles in river gravel from the Ohio River and Arkansas River and in drainage from mountainous areas in eastern California.

Unakite may be cut into attractive cabachons. The feldspar is 6.0 in Mohs hardness and the epidote ranges from 6.0 to 7.0. Any quartz present is 7.0 in hardness. Proper attention during cutting should be adequate to avoid any tendency of the stone to undercut. Quick and Leiper recommend polishing with cerium oxide on a felt buff. The contrasting pinks and greens make a pretty combination for spring and summer wear.

Member of the Rocky Mountain Federation of Mineralogical Societies



Affiliated with the American Federation of Mineralogical Societies



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Junior Leader	Elizabeth Hixon.....	316-651-0054 ebeth.horselover@gmail.com
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Dues:

Club Year September 1 - August 31	
Adult Membership	\$10.00
Junior Membership (13-17)	\$ 5.00 (must have adult sponsor)
Quarry Quips Subscription ONLY	\$ 8.00

Please send dues to: **WGMS Treasurer,**
c/o Susan Bannon, 11825 E 1st St N, Wichita KS 67206-2732

Our Annual show will be:
April 20, 21 & 22 2012
Rocky Mountain Minerals

About our Club

The Wichita Gem and Mineral Society Inc. is a 501(c)(3) nonprofit, tax-exempt, educational organization. Our purpose shall be exclusively educational and scientific; (a) to increase and disseminate knowledge of the earth sciences pertaining to minerals, gems, rocks, artifacts, and fossils and similar subjects; (b) to promote and perpetuate knowledge of the lapidary arts; © to encourage field trips to study the earth sciences, particularly of geology and mineralization in place and (d) to encourage greater public interest and education in gems, fossils and minerals, cooperating with established institutions in such matters.

The Wichita Gem and Mineral Society, Inc. meets the fourth Sunday of each month at 2:00 p.m. in Room 101, Geology Building, Wichita State University. - Except - January (Anniversary Party); April (Annual Show); August (Picnic & Auction). (November and December meetings are subject to University holiday closings.) Times and locations to be announced/published. WGMS does NOT offer classes or workshops.

Board meetings are held on the Monday preceding the General meeting at places announced and/or printed in the Quarry Quips, the official bulletin of the Society. ALL members are urged to contribute material for publication in the Quarry Quips, the deadline for ALL articles is the Friday following the General meeting. All articles should be submitted by e-mail to: editor@wgmsks.org or snail mail to:

Carolyn White
2225 N. Fountain
Wichita KS 67220

Club mailing address:

Wichita Gem and Mineral Society Inc.
PO Box 1464
Wichita KS 67201-1464
Web Address: www.wgmsks.org



The Quarry Quips is published monthly by the Wichita Gem & Mineral Society, Inc. Articles printed in this newsletter are the experiences and/or opinions of the individuals submitting them, they do not necessarily reflect the views or opinions of the Wichita Gem & Mineral Society or the editor. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea. Articles written without a byline are written by the editor.

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Exchange Bulletins Welcome

Membership News

By Susan Bannon

Please add the following new members into your membership directory.



Charles Hooker BD 10/25
12622 Rolling Hills Circle
Wichita, KS 67235-1363
316-721-4102
charles.s.hooker@spiraero.com

Caelan Schuman BD 9/1
316-729-7267
megan3d@yahoo.com
(junior member)

Michael Nichols BD 01/16
5337 S. Market Circle
Wichita KS
316-650-5224
mike.nichols5224@att.net

Sherrie Lawhon BD 3/20
1822 N. Denene
Wichita, KS
316-721-0975
slawhon@cox.net

Joan Breit BD 10/12
PO Box 252
North Newton, KS 67117
316-283-2043

Shannon Dixon BD 5/16
2016 E 50 S
Wichita, KS 67216
316-218-7868
xtremegardener2016@gmail.com

Welcome to all our new members. We are glad to have you. Please make note of our program schedule and club calendar also on this page. When you sign in at the club meeting, please pick up your new membership packet. We look forward to getting to know you!

Snack Sign-up



We need volunteers to bring snacks for the social hour following the meeting. Please contact Debbie Winton at 316-841-8773 or cwinton@pixius.net

Programs

By Don Atherton

Program Schedule

- July: Mike Wingo will give a presentation on dinosaurs.
- August - rock sale, pot luck lunch and auction

Election Results

By Carolyn White

All of you who were there at the June meeting know that we had an exciting and rousing election. I am sure the suspense has been killing you....so without further ado, here are your board members for 2011-2012.



- President - Tony Giardina
- Vice President - Peggy Maggard
- Secretary - Monica Turner-Williams
- Treasurer - Sandy Whiting
- Membership - Susan Bannon
- Editor - Carolyn White
- Finance - Bob Haines
- Publicity - Leo Heidebrecht
- Field Trip - Lyle Koerper
- Junior Leader - Elizabeth Hixon
- Show Chair - Gene Maggard
- Director 2012 - Naomi Matney
- Director 2013 - Ardis Cruz
- Director 2014 - Don Atherton

Our existing board will remain in place until August. The new board will convene Monday, September 19th, 7pm at the Community of Christ Church, 3600 S. Webb Road. At that time we will set the calendar for the new year.

The Year Ahead



General Club Meetings

Jul 24	WSU Geology Bldg, Rm 101	2 pm
Aug 27	Rock Sale, Pot Luck and Auction Community of Christ Church	
Sep 25	WSU Geology Bldg, Rm 101	2 pm
Oct 23	WSU Geology Bldg, Rm 101	2 pm

Board Meetings

Jul 18	Community of Christ Church	7 pm
Aug 22	Community of Christ Church	7 pm
Sep 19	Community of Christ Church	7 pm
Oct 17	Community of Christ Church	7 pm



WGMS Board Meeting Minutes

General Meeting

By Tonona Martin

The Board of Officers of the Wichita Gem and Mineral Society met Monday, June 20th at the Gene Maggard's residence. Don Atherton, Carolyn White, Sandy Whiting, Bob Haines, Elizabeth Hixon, Gene Maggard, Peggy Maggard, Leo Heidebrecht and Susan Bannon were in attendance.

Guests: Chris Winton, Merle & Angela White, Alice Piper, Ray Adams, Pat Haines, Anna Hixon, Paul & Ann Radial.

Vice President Don Atherton brought the meeting to order. Sandy Whiting moved that the minutes be approved as written, Susan Bannon seconded the motion, motion passed.

Sandy Whiting, Treasurer, submitted the following vouchers for approval:

- 321.18, Carolyn White, paper & stamps
- \$62.00, US Postmaster, PO Box rental, 1 yr

Peggy Maggard made a motion to pay the bills, Carolyn White seconded the motion, motion passed.

Susan Bannon, Membership, submitted six new member applications for review. Gene Maggard made a motion to approve the new members, Bob Haines seconded the motion, motion passed.

Carolyn White gave a report regarding the nominating committee. The position of secretary is still open. Carolyn asked for recommendations from board members for potential candidates for the position.

Gene Maggard reminded everyone that we need donations for the Junior Rock Pile.

Don Atherton suggested that we make a change to the bylaws for Life Members. Currently the bylaws require 20 years of continuous membership and 80 years of age. Don recommended lowering the age and increasing membership period. Discussion was held. A consensus was reached to make a recommendation to modify the bylaws to allow lifetime membership at age 70 and 25 years of continuous membership. The recommendation will be published in 2 issues of the Quarry Quips and then voted on by the general membership in the September meeting.

Elizabeth Hixon, Junior Leader reported that she got an email from a tutor in Delaware that was using the WGMS Junior website as a resource. Monica Williams volunteered to bring materials for the June junior meeting.

The meeting was adjourned.

The June meeting of the Wichita Gem & Mineral Society was called to order by vice president Don Atherton. It was moved by Paul Radial and seconded by Chris Winton that the minutes from the prior meeting be approved.

Secretary Tonona Martin shared information on upcoming shows and rock swaps.

Editor Carolyn White in Susan Bannon's stead recognized two visitor's: Kelly Dixon and Janet Patterson.

Kelly Dixon won the visitor's door prize- a crazy lace agate necklace. The member door prize was won by Caelan Schuman who chose a rock specimen sampler. Janet Garner won the member badge prize and selected a peacock copper ore specimen.

Joe Cruz- Field Trip Chair stated that there would be no field trips this month.

Lyle Koerper- Field Trip chair candidate stated that the Maggard's and the Koerper's were planning a trip to South Dakota from late July to early August and any interested club members were welcomed to meet them there for lots of great rock hounding opportunities. Lyle is also planning a 'back to school' field trip and stated that in the future we will attempt to schedule all field trips in the first weeks of the month immediately following monthly meetings.

Bob Hicks (Collinsville, Oklahoma) is having a three day sale. Multiple Oklahoma clubs will gather and sell items. Carolyn will email details to all members. Another rock hounding opportunity is occurs in Deming, New Mexico in the 2nd week of March.

New officer election ballots were passed out and returned - results are forthcoming.

Show & Tell:

- Horace Peterson brought several specimens to be identified.
- Marci Fleeker brought beading examples from the beading gathering that occurs every Wednesday evening at her home- all are welcomed to attend.



WGMS Library

We have a lot of great books in the WGMS library. It is open when we have a club meeting at WSU. Members can check out books for one month.

Show Report

By Gene Maggard

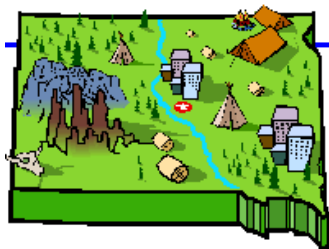
Well, I hear that I got reelected to the thankless Show Chair, again. (Just kidding about the thankless part!!) Peggy and I missed the June meeting because we were attending the RMFMS Convention in Colorado Springs over the same weekend. Afterwards we did take a few days of free time and caught trout out of the South Platte River west of Colorado Springs. The fishing was good for me and just fair for Peggy, but we both had fun.

Anyway, back to the Show Committee. I am hoping that most of the current committee members will re-up for another year, but we also need a couple more committee members. If you happen to be interested in serving on the Show Committee, please give a call or email me.

We will probably have the next committee meeting towards the end of July. I will be in touch with the committee about a specific meeting time. The main agenda item will be to select dealers for the 2012 show.

South Dakota

The Maggards and the Koerpers are doing their annual South Dakota Black Hills trip at the end of July. Arrival July 30 and departure August 4.



They will be hunting Fairburn agates, prairie agates, pegmatite minerals in the mine dumps around Custer, and trout fishing. Anyone interested in tagging along are welcome and should contact Gene at 316-742-3746 for details. If you ever want to see the Black Hills mine dumps you better act fast. They are going away very fast.

RMFMS Bulletin Contest

By Gene Maggard



Peggy and I attended the RMFMS Convention at the end of June in Colorado Springs. I attended the Editors' Breakfast and discovered that our own WGMS Editor, Carolyn White, has been quite busy submitting articles for the Editors' Article contest.

These are articles that WGMS members have submitted to Carolyn for publication in the Quarry Quips. We had several award winners, which I will present at the July General Meeting. Please plan to attend in order to see who won a prize. If you had an article published, it could be you!!

Proposed Changes to Bylaws

By Don Atherton

Article III. Membership, Section 2.

(3) Life Membership - Any member in good standing with at least twenty(20) years of continuous membership who has attained the age of at least eighty (80) years may obtain life membership status by submitting a request to the Board of Directors for approval. Requests may be submitted by the member or by any member in good standing. Such members shall have voting and office holding privileges.

CHANGED TO READ:

(3) Life Membership - Any member in good standing with at least **twenty five (25)** years of continuous membership who has attained the age of at least **seventy (70)** years may obtain life membership status by submitting a request to the Board of Directors for approval. Requests may be submitted by the member or by any member in good standing. Such members shall have voting and office holding privileges.

Gems & Jewels

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

ALEXANDRITE	GARNET	PERIODOT
AMETHYST	GIRASOL	RUBY
AQUAMARINE	JADE	SAPPHIRE
AZURITE	JASPER	TANZANITE
BERYL	KUNZITE	TIGERS
CATS EYE	MOONSTONE	TOPAZ
DIAMOND	ONYX	TOURMALINE
EMERALD	OPAL	TSAVORITE
	PEARL	TURQUOISE

Word list submitted by Ruth Weischaar

Junior Program

By Elizabeth Hixon

Thank you to Monica Williams for organizing and overseeing June's activity for the junior members. Caelen Schuman and Angie White attended. The juniors made oil rig models to see what oil reservoirs look like both above ground and underground.

If you have any suggestions for future youth activities, please contact me at junior@wgmsks.org.

Options for future projects are beading, pet rocks, and painted rocks. Please email me at ebeth.horselover@gmail.com to RSVP if you plan to attend the July Junior meeting.



Labor Day Field Trip Idea

By Lyle Koerper

Some rock swaps offer great field trip opportunities. This is true of the Crawford, NE, Rock Swap Labor Day weekend, Sept. 2, 3, 4 & 5. Crawford is in Northwest Nebraska near rock beds that offer rockhounds good collecting – even highly prized Fairburn Agates. The swap will be in the Crawford City Park.

Guided field trips to the rock beds are scheduled Sept. 2, 3 and 4 starting at 8 a.m.. No charge. You provide transportation, basic tools, food and water.

Last year there were 75 vendors at this rock swap. Some vendors are the year-around "professional" type, but many are hobby collectors who offer their extra material for sale, usually at quite good prices. And these people like to tell where and how they found what they are selling. There will also be displays – lots of agates.

On Saturday, Sept. 3, there will be an agate collectors meeting at 2 p.m.; a potluck supper at 6 p.m., with an auction at 7 p.m. Everyone is welcome.

For information, contact: Wade Beins, Box 569, Chadron, NE 69337. Phone: (308) 430-1399. Email: agates@bbc.net.

June and I have, and several other WGMS members, have attended the Crawford Swap. I think this is a great opportunity for newer rockhounds. Travel time is one day. Accommodations can be secured through the Crawford Chamber of Commerce. Fort Robinson offers reasonable rooms in an historic setting.

If you have questions for me, call 722-7115, Lyle Koerper.



<http://www.crawfordnebraska.net/>

Also known as the "Big Game Capital of Nebraska" this area is a destination point of both nature lovers and game hunters alike.

The Pine Ridge area is full of trails for hiking, biking and horseback riding. Several lakes, streams and rivers provide boating, fishing, camping and photo opportunities. The area is also rich in Fossils with two world-class bone beds.

Rock collectors visit the area seeking Fairburn and Nebraska Blue Agate.

Crawford is located in the scenic Pine Ridge area of Northwest Nebraska, just three miles east of historical Fort Robinson

THE NATURAL HISTORY MUSEUM DINOSAUR HALL

National History Museum of Los Angeles, <http://www.nhm.org/site/explore-exhibits/permanent-exhibits/dinosaur-hall>
Via Rocky Review, Cornejo Gem & Mineral Club, July 2011

Opens July 16, 2011

The all-new, 14,000-square-foot Dinosaur Hall is twice the size of the Museum's old dinosaur galleries. It will rival the world's leading dinosaur halls for the number of individual fossils displayed, the size and spectacular character of the major mounts, including the world's only Tyrannosaurus rex growth series, and the way that paleontology comes alive! In these spacious, light-filled galleries, visitors will encounter science not as static information but as a vibrant, ongoing investigation into mysteries — some resolved and some still being explored.

The stunning centerpiece of this gallery is the Tyrannosaurus rex growth series, featuring a baby, juvenile, and sub-adult T. rex. It's the only series of its kind in the world.

- **Baby:** About 2 years old when it died, this 11-foot long specimen is the youngest known
- **Juvenile:** At the young age of 13, this T. rex already measured more than 20 feet long and weighed about 4,000 pounds. A rare specimen, this fossil provides a crucial link in understanding the rapid growth of the T. rex.
- **Thomas the T. Rex:** This never-before-seen fossil was excavated by NHM paleontologists in southeastern Montana from 2003-2005. It is estimated to be a 70% complete specimen, one of ten most complete T. Rex specimens on earth. At 17 years old, 34 feet long and nearly 7,000 pounds, this giant completes a series showing dramatic changes and rapid growth of T. Rex. Mid-spurt, it's estimated that a T. Rex could gain 1,500 pounds in a year.



Holes in Fossil Bones Reveal Dinosaur Activity

Research from the University of Adelaide has added to the dinosaur warm-blooded vs. cold-blooded debate. Professor Roger Seymour applied theories of human and animal anatomy and physiology to gain insight into the lives of the dinosaurs.

Human thigh bones have nutrient foramen (tiny holes) on the shaft that supply blood to the bone cells. New research has shown that the size of these holes are an indication of the maximum aerobic activity level a person can achieve. Professor Seymour used this information to gain insight into the activity level of dinosaurs.

"My aim was to see whether we could use fossil bones of dinosaurs to indicate the level of bone metabolic rate and possibly extend it to the whole body's metabolic rate," he says. "One of the big controversies among paleobiologists is whether dinosaurs were cold-blooded and sluggish or warm-blooded and active. Could the size of the foramen be a possible gauge for dinosaur metabolic rate?"

Foramen size and metabolic rates were compared between living mammals (ranging in size from mice to elephants) and reptiles (from lizards to crocodiles). They found a close relationship between the size of the foramen and the metabolic rates during peak activity in both reptiles and mammals. They also found that the mammalian foramen were 10 times larger than those in reptile bones.

These foramen were compared to those of 10 species of fossil dinosaur bones. The sample included bipedal, quadrupedal, carnivores and herbivores weighing 50kg to 2,000kg. "On a relative comparison to eliminate the differences in body size, all of the dinosaurs had holes in their thigh bones larger than those of mammals," Professor Seymour says. "The dinosaurs appeared to be even more active than the mammals. We certainly didn't expect to see that. These results provide additional weight to theories that dinosaurs were warm-blooded and highly active creatures, rather than cold-blooded and sluggish."

Source:

- University of Adelaide (2011 July 8). Holes in fossil bones reveal dinosaur activity. Science Daily. Retrieved July 10, 2011 from <http://www.sciencedaily.com/releases/2011/07/110708124348.htm>

“The Story of Victoria Stone”

by *Vyonne Mack-WGMS Club Member*

Victoria Stone is also known as “Imori Stone”, named after its Japanese creator, Dr. Imori. It is not an artificial or fake stone. What Dr. Imori was able to accomplish was to actually blend several different minerals using a special process known only to him to come up with an Imori Stone, commonly called Victoria Stone.

This beautiful reconstructed gem is mineralogically similar to Nephrite Jade. It has a hardness of six, specific gravity of 3.02 and a refractive index of 1.62. It was laboratory produced from natural raw materials such as quartz, feldspar, magnesite, calcite, fluorspar, etc. for a total of seven different minerals-fused together under high pressure and a high temperature and again mineralized to make this gem by adding special crystallizers and habit regulators. This is not an imitation or synthetic but is a reconstructed natural stone. The boule of Victoria stone was slowly cooled down for 35 to 40 days to make it crystallize into the pretty fan shapes.

Victoria Stone is mineralogically similar to nephrite jade, but the arrangement of the actinolite crystals is different. Instead of the crystals interlocking and tying together as they do with jade, they have crystallized in fan shapes to provide the beauty of the stone. As a result of this difference, the rough stone is more likely to crack or splinter if overheated.

Victoria Stone could be bought by the boule or in slices when it was produced in 15 different colors from 1960 to the 1980's –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.

To cut Victoria Stone, cut it first lengthwise, and then let it set for 24 hours; then you can go ahead and slice it using normal cutting procedures, using plenty of water to keep it cool so it won't shatter. First sand on sharp 220 grit sanding cloth, then sharp 320 cloth, with a final sanding on a worn 320 cloth. A quick and easy polish can then be obtained finishing on a dry leather buff with tin oxide.

The transparent Victoria Stone that is used for faceting is composed of di-silicates or tri-silicates of earth elements and alkali metals. The hardness is 5.5 to 6, specific gravity of 3.02 and a refractive index of 1.12. It was quickly cooled down in one day so that it wouldn't crystallize into patterns. The faceted Victoria Stone came in 8 colors, including sapphire blue, emerald green, amethyst purple, ruby red, topaz, aquamarine, garnet and peridot green. Dr. Imori died without confiding in anyone how the process worked and no one has been able to duplicate it. There is only a limited and non-replenishable supply of Victoria Stone in existence, when this material is used up to make jewelry and cabochons, it will become scarcer and about impossible to find.

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*In 2008 George and Vy attended a meeting of the McPherson Gem & Mineral Society where Jim Nutter was giving a program on rock identification. Judy Beck, 's son brought his collection of rocks. George pointed out one of the rocks and asked if they knew what it was. “Just a pretty stone he likes to play with.” It was a piece of Alexandrite worth approximately \$80. Vy later gave a program on Alexandrite for the McPherson Gem and Mineral Society and the Wichita Gem and Mineral Society. This article was written by Vy for the McPherson newsletter and submitted in the RMFMS Bulletin competition. Vy received a certificate of appreciation for her entry. Vy's article was also printed in the July '08 edition of the WGMS Quarry Quips.*

## The Remarkable Eye of a Trilobite

The eyes of trilobites, small extinct arthropods 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 precisely to produce the optical properties of glass, says Kenneth 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 bio-mineralization. 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 eye 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.

*Via the Huron Hills Lapidary & Mineral Society 2/09*



## Shop Tips

via Ft Collins' Lodestone 2/11, via Rockhound Gazetteer 4/11, via Beehive Buzzer 4/11

### Helpful Hints! (they never hurt)

- Many lapidarists now heat nodule and thunder egg halves under a heat lamp for a few minutes before polishing with tin oxide or cerium oxide on felt. The polish comes up almost instantly. Alternatives include putting specimens in a 200°F oven until they are warm to the touch or putting specimens in hot water until they are warm. Dry off excess water before polishing.
- To repair a spread apart link in a small broken chain, insert a toothpick in the two adjacent links. The faulty link is thus held in place for pliers to pinch it together again.
- To break a cavity filled with fragile crystals away from a large matrix specimen: fill the cavity with fine dirt and hold the piece with the cavity facing up to retain the dirt while you trim the specimen. The dirt prevents the shock of the hammer blow from loosening the crystals.
- Dinosaur bone is handled much like agate, sanded to 600 grit on silicon carbide, and polished on hard felt with tin oxide. The stone is finished with black rouge on muslin buff. The muslin buff can clean out the tin oxide that remains between the bone cells, and the black rouge applies a stain to the tin oxide that remains behind. What color rouge you use might depend on the color of your bone.
- To spot cracks and vugs before sawing, first soak it in a tub of water for at least an hour. Remove the rock and place it in a sunny spot. The surface will dry quickly, but the fractures and vugs will not. Use a soft pencil to mark the rock for guidance in sawing.
- Take lint from your clothes dryer lint catcher and add it to the polishing compound for tumbling. It will speed up the polishing and prevent chipping.
- Did you know that malachite is very poisonous in its raw state? Never lick the material to see the color. Don't even repeatedly lick your finger and apply. When you grind, wipe the contaminated oil off your skin right away. If you smoke and the taste becomes very sweet you are absorbing the malachite dust. The copper oxide dust is mixing with the moisture in your mouth and re-acting to the tar in the tobacco, turning it into saccharine. Needless to say, you should take some immediate steps to stop the Inhalation.

## Origin of Benitoite

Via The Three Rocks Report Jan 2006, via Rocky Review Jan 2010



According to the popular story, Jim Couch, a prospector grubstaked by Rod Dallas to prospect the New Idria area for "whatever he might find", discovered the Dallas Gem Mine in December 1906. Mr. Couch journeyed from Coalinga, over the pass at the head of Los Gatos Canyon and camped at Leroy Akers' ranch before heading up "the very rough horseback trail" toward the headwaters of the San Benito River the next morning. By evening, he had traveled eight miles and set camp at a place he describes as, "a beautiful pine-studded glade, as level as a floor, where there was a nice stream of water and an abundance of grass for my faithful horse." He began the next day by exploring the hillside north of the river and quickly discovered "a narrow cleft where thousands of sapphire-blue gems, weathered from the snow-white walls of their mother rock were poured-out before his feet." Mr. Couch thought he had discovered "blue diamonds." But when some of the stones were given to a Los

Angeles lapidist for cutting, word came back that the stone were "worthless volcanic glass." However another set of stones reached a San Francisco lapidist who thought they were spinel and he sold one to George Eacret, a gemologist at Shreve & Company who immediately knew that it was neither volcanic glass, sapphire nor spinel, but couldn't identify it further. Mr. Eacret took the gem to his friend, Dr. Louderback, at the University of California at Berkeley who identified the stone as a previously undiscovered gem, and named it "Benitoite" for its origin of discovery.

Check out the website [calstategemmine.com](http://calstategemmine.com).





## Member Birthdays

July:

- 01 Gabriella Lorik
- 04 Dennis Crossland
- 08 Gene Maggard
- 09 Lucille Lemonds, Lisa Scheibmeir
- 11 Greg Weisbrod
- 15 Larry Skelton
- 18 Abby Taylor
- 19 Anna Hixon, Emma Ehart
- 20 Ardis Cruz, Tana Hurlock
- 22 Richard Moore
- 23 Jim Hilliard, Herb Wilson
- 24 Leo Heidebrecht
- 26 George Asher
- 27 June Koerper
- 29 Lloyd Folger
- 30 Tony Giardina



August:

- 01 Darrel Boger, Bob Haines
- 05 Richard Goodnough
- 06 Renee Sanchez
- 07 Horace Patterson
- 15 Peggy Maggard, Ron Fenwick
- 17 Pat Haines, Dennis Rausch
- 18 Beverly Whitman
- 19 Jack Norris
- 21 Ida Crouch
- 23 Dora Bradley
- 26 Linda Crossland
- 27 Nola Nelson, Frank Holinde
- 30 Marvaline Ray



## You are Invited to a “Beeding Bee”



Do you like to bead? If so, you are invited to come to Marci Fleeker's on Wednesdays for an evening of beading fun. Sessions are subject to cancel without notice so check with Marci to confirm.

Come anytime after 4pm. Bring your own beading project to work on in the company of other people who like to bead. We won't be teaching any lessons, or providing any food or drinks, we'll just be having fun and hopefully learning from each other.

If you don't have a beading project but want to fellowship anyway, feel free to join us with a project of your choice

2166 S. Topeka  
262-8392

## Show Calendar

For a more complete list of all shows go to:  
<http://www.rockngem.com/showdates.asp>  
or refer to a copy of Rock & Gem Magazine.



**JULY:**

**9-10—SYRACUSE, NEW YORK:** 45th annual show, “Gems Along the Erie Canal: A Diamond Celebration”; Gem & Mineral Society of Syracuse; New York State Fairgrounds, Center of Progress Bldg., I-690; Sat. 10-6, Sun. 10-4; competitive exhibits, lectures, workshops, demonstrations, kids’ activities, minerals, fossils, beads, metaphysical stones, AMFS and EFMLS Convention meetings July 6-8; contact Cathy Patterson, (315) 638-8817; e-mail: [cathypatterson@verizon.net](mailto:cathypatterson@verizon.net); Web site: [www.gmss.us](http://www.gmss.us)



**16-17—MOOSE LAKE, MINNESOTA:** 42nd annual show, “Agate Days”; Carlton County Gem & Mineral Club, Moose Lake Area Chamber of Commerce; Moose Lake High School gym and parking lot, 413 Birch Ave.; Sat. 9-5, Sun. 9-4; free admission; dealers, Lake Superior agate, cutting materials, specimens, crystal groups, fossils, gems, jewelry, lapidary equipment, rough rock tailgaters, door prizes, field info, Agate Stampede Sat.; contact Al Hyopponen, 4902 Jean Duluth Rd., Duluth, MN 55804, (218) 525-7766; e-mail: [wilow73@cpinternet.com](mailto:wilow73@cpinternet.com)

**23-24—KALISPELL, MONTANA:** Annual show; Northwest Montana Rock Chucks; Flathead County Fair Grounds, Grandstand Bldg., 265 N. Meridian Rd.; Sat. 10-6, Sun. 10-4; adults \$1; demonstrations, silent auction, door prizes, minerals, jewelry, kids’ activities; contact Milah Gano, P.O. Box 433, Lakeside, MT 59922, (406) 844-3560; e-mail: [mallards\\_g@hotmail.com](mailto:mallards_g@hotmail.com)

**AUGUST:**

**11-14—BUENA VISTA, COLORADO:** 28th annual show; Contin-Tail LLC; Rodeo Grounds, Greg Dr. and Rodeo Rd.; Thu. 9-5, Fri. 9-5, Sat. 9-5, Sun. 9-5; free admission; more than 100 dealers, rocks, minerals, fossils, gemstones, jewelry, tools, equipment, demonstrations, fluorescent mineral display Fri. and Sat., free rocks for kids; contact Carolyn Tunnicliff, 1130 Francis St. #7010, Longmont, CO 80501, (720) 938-4194; e-mail: [ctunnicliff@comcast.net](mailto:ctunnicliff@comcast.net); Web site: [www.coloradorocks.org](http://www.coloradorocks.org)

**19-20—TAHLEQUAH, OKLAHOMA:** Show; Tahlequah Rock & Mineral Society; Tahlequah Community Bldg., 300 W. 1st St.; Fri. 9-6, Sat. 9-5; free admission; rocks, minerals, fossils, gems, jewelry, demonstrations, auction, children’s activities, educational displays; contact Sara Brasel, (918) 458-0801; e-mail: [crosstim-bersrd@earthlink.net](mailto:crosstim-bersrd@earthlink.net)

**27-28—MOUNTAIN HOME, ARKANSAS:** Show; Ozark Earth Science Gem, Mineral & Fossil Club; Senior Center in Cooper Park, 1101 Spring St.; Sat. 10-6, Sun. 10-5; free admission; door prizes, mineral and gem displays, interactive children’s events, minerals, fossils, handmade jewelry, demonstrations; contact Edward Hakesley, 821-1 Alexis Circle, Mountain Home, AR 72653, (870) 424-0956; e-mail: [edscamp3@yahoo.com](mailto:edscamp3@yahoo.com); Web site: [www.ozarkearthscience.org](http://www.ozarkearthscience.org)

# 2011 WGMS Rock Sale Registration Form

Date: Saturday, August 27th, 9:30 a.m. to Noon, Set-up 8:30 a.m.  
Location: Community of Christ Church, 3500 S. Webb Road, Wichita, Kansas

Business Name \_\_\_\_\_

Business Sales Tax Number \_\_\_\_\_

Your Name \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_

E-Mail \_\_\_\_\_

Please send Registration Form to  
Don Atherton, 3831 Countryside Street, Wichita, Kansas 67218-4005 \*\*\* 316-685-2725 by August 1, 2011.

- \*Must be WGMS member to have a booth at swap meet.
- \*Must provide tables and other display materials.



Rocks  
Fossils  
Gems  
Minerals

## Wichita Gem & Mineral Society Rock Sale

Saturday, August 27th  
9:30 am - 12:00 pm

Community of Christ Church  
3500 S. Web Rd  
Wichita, KS

Pot Luck Lunch, 12:30 pm  
WGMS Auction, 1:30 pm

Public Welcome at Rock Sale &  
Auction

\*Must be a WGMS member to have a booth at the swap meet

The forth annual  
WGMS Rock Sale is  
open to all current  
WGMS members who  
would like to have a  
booth. You must have  
a KS Sales Tax number  
if you plan to sell at  
this meet.

To register call  
Don Atherton at  
316-685-2725  
by Aug 1 with your  
Business Name and  
Sales Tax number.

One space per member  
/ family. Spaces will  
be assigned on a "First  
Come" basis.

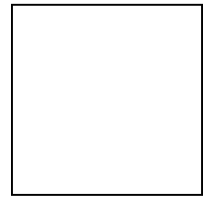
Set Up 8:30 am



**WICHITA GEM & MINERAL SOCIETY, INC**

**QUARRY QUIPS**

Carolyn White, Editor  
2225 N. Fountain  
Wichita, KS 67220  
editor@wgmsks.org  
www.wgmsks.org



TIME VALUE  
DO NOT DELAY

**Next Meeting:**

**Sunday, July 24th, 2:00 pm**  
WSU Geology Building, Rm 101

«Name»  
«Name 2»  
«Address»  
«City State zip» «Sort Field»

## What's in this Issue

| Page | Club Business          | Page | Special Interest            |
|------|------------------------|------|-----------------------------|
| 2    | About Our Club         |      | AFMS News:                  |
| 3    | Calendar - WGMS Events |      | RMFMS News:                 |
| 5    | Field Trips            | 5    | RMFMS Bulletin Contest      |
| 4    | Meeting Minutes        | 3    | Election Results            |
| 10   | Member Birthdays       | 6    | Labor Day Field Trip Idea   |
| 3    | Membership             | 7    | Fossils in the News         |
| 2    | Officers               | 9    | Origin of Benetoite         |
| 3    | Programs               | 9    | Shop Tips                   |
| 5    | Show Report            | 10   | Show Dates                  |
|      |                        | 8    | The Story of Victoria Stone |
|      |                        | 11   | WGMS Rock Sale and Auction  |

Quarry Quips Article Deadline: Friday, July 29  
Send articles to Carolyn White. Contact information at top of page.  
Material in this newsletter may be used if proper credit is given.

