

Volume 60 Issue 8

AUGUST 2011

www.wgmsks.org



Wichita Gem & Mineral Society

Rock Sale

Saturday, August 27th

9:30 am - 12:00 pm

Community of Christ Church

3500 S. Webb 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 sale.

Auction proceeds support the annual WSU Geology
Scholarship

Rocks

Fossils

Gems

Minerals

Jewelry

Lapidary
Work

WICHITA GEM & MINERAL SOCIETY

Quarry Quips

Member of the Rocky
Mountain Federation of
Mineralogical Societies



Affiliated with the
American Federation of
Mineralogical Societies



2010 - 2011 Officers

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President	Tony Giardina.....	316-214-8227 karen@van-m.com
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Secretary	Tonona Martin.....	316-708-3488 tononamartin@yahoo.com
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Director 2012.....	Naomi Matney.....	316-265-2665
Director 2013.....	Ardis Cruz.....	316-218-0250

Appointed Officers

Cheer	Alice Piper	316-264-7273
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Gifts	Paul Radiel	316-777-4174
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Librarian	Jim Yanda	620-455-2419 oxford@oldwiz.net
Registered Agent.....	Alice Piper	316-264-7273
Webmaster.....	Diane DeGood.....	316-794-8391

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 Carolyn White

Our new year starts in September. That means it is time to pay your annual dues. You can mail your dues to :



Susan Bannon
Membership Chair
11825 E 1st St N,
Wichita KS 67206-2732

You can also pay your dues to Susan Bannon at the August or September general meeting. Please make your check out to WGMS Treasurer. If you are paying in cash please have the exact change.

Dues are as follows:

Adult Members: \$10.00
Junior Members: \$5.00

I will be printing the new Membership phone directories in October. If your dues aren't paid by the September meeting, I can't put you in the phone directory so lets get them paid on time!

Thank you!



Life Member Stanley Ayers passed away on Thursday, July 7th. He died peacefully in his sleep at Kansas Masonic Home. His son, Mark Ayers joined WGMS in 1968 after the April show. His mother and father joined the year after. Stanley always enjoyed the society and social aspects of it.

Programs

By Don Atherton

The program presented in July by Mike Wingo was an interesting and educational program on dinosaurs that enlightened us on the eras in which they lived and the theories of their extinction. The theory that the meteorite did not cause the extinction of the dinosaurs has been around about 20 years or longer. The young man that made the statement of the dinosaurs became extinct before the meteorite has been studying dinosaurs.

Mike's models of dinosaurs are quite extensive and interesting, especially the brachiosaurus. It is the largest model of a dinosaur made from a kit that I have ever seen. Several of the models he showed were made from kits, but most were plastic replicas. The brachiosaurus

was quite unique. Too bad the brachiosaurus fell and broke, but unlike Humpty-Dumpty he can be put back together.

Another interesting part of his program was the dinosaur bones and spheres made from dinosaur bones. There were several different colors of bones shown. He also showed us four dinosaur eggs, each different in size and shape.

Thank you Mike for sharing with us your remarkable items of dinosaurs and your interesting talk.

Show and Tell

- Horace Patterson had some items that were polished slabs such as septarian concretion, some agate and other nice rocks.
- Tony Giardina brought along some rocks that he brought from his trip out west. He had one large rock with some light green color that he asked if someone could identify.
- Marcie Fleeker had several dinosaur bones some were polished and they were different in color. She had one large bone that was polished very nice.

August Program: Saturday August 27th

- 9:30 am - rock swap/sale
- 12:30 pm pot luck lunch (bring a covered dish)
- 1:30 pm Auction

Community of Christ Church
3500 S. Web Rd
Wichita KS

All proceeds from the auction go towards our annual WSU Geology Scholarship.

The Year Ahead



General Club Meetings

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

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

Field Trips



WGMS Board Meeting Minutes

The July board meeting of the Wichita Gem & Mineral Society was called to order by president Tony Giardina. Carolyn White, Susan Bannon, Tonona Martin, Tony Giardina, Don Atherton, Sandy Whiting, Bob Haines, Leo Heidebrecht, Gene Maggard and Peggy Maggard were present. The minutes from the previous meeting were approved.

Don Atherton stated that the cost to advertise the annual rock sale is \$38.75. Don proposed that the club cover the cost of advertisement. Discussion followed – it was moved by Don Atherton and seconded by Peggy Maggard that the club cover this expense. The motion failed.

It was then suggested that vendors share equally in the cost of advertisement. Discussion followed. It was moved and seconded that vendors share equally in the cost of advertisement. After a vote this motion carried.

Don Atherton submitted a proposal to change the language of Article III of club bylaws regarding life membership. After discussion it was moved and seconded that two separate proposals and the option to not change this bylaw be submitted to the general membership at the July 24th meeting.

Don Atherton stated that the program for the next general meeting would be presented by Mike Wingo. The presentation will be on dinosaurs.

Secretary Tonona Martin submitted a receipt of payment from the US Postal Service (\$62.00) and club insurance information to Sandy Whiting. Tonona also presented mailings for upcoming rock swaps for board members to review.

Treasurer Sandy Whiting stated that the club retained it's 501(c)(3) tax exempt status and that the club remitted \$185.89 in Kansas sales tax.

Susan Bannon submitted applications for three new members. After reviewing the applications the board decided to have the applicants resubmit their applications due to incomplete information.

Gene Maggard reminded board members that the Koerper's and the Maggard's would be traveling to the Black Hills in South Dakota in late July and remaining there until early August. Members are invited to go along and rock hound with them. Gene also stated that the 2012 show committee will basically be unchanged from the 2011 committee. The show committee will meet in August at 7 pm preceding the board meeting. Committee members will discuss vendors, budget and set rock pile work dates.

Peggy Maggard stated that she made contact with several vendors at the Rocky Mountain Federation show and invited them to our show.

Lyle Koerper- incoming Field Trip chair 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.

Carolyn White stated that she had several presentations to make to those who submitted articles to the Rocky Mountain Federation competition at Sunday's meeting.

The meeting was adjourned.

General Meeting

The July meeting of the Wichita Gem & Mineral Society was called to order by President Tony Giardina. It was moved by Larry Skelton and seconded by Chris Winton that the minutes from the last meeting be approved. The motion carried.

Susan Bannon reminded all new members to pick up their new member packets before the meeting was over.

Carolyn White presented Rocky Mountain Federation article recognitions to Gene Maggard, Leo Heidebrecht and Greg Weisbrod. Second place awards were given to Mary and Curly Clough, and Larry Skelton. First place awards were given to Lyle Koerper for his photo story and Angela White for her poem.

Gene Maggard stated that Lyle Koerper has planned a club field trip for 9/17 to Gypsum Creek and on 10/1 to the Melvern Reservoir. Gene also stated that the new show committee is being formed and will meet at the next board meeting to discuss budget. Gene also stated that Alice Piper and Ray Adams have retired from their former show posts. Taking the positions of Alice and Ray will be Marci Fleeker (spin the wheel) and Scott Norton (fluorescents). Gene stated that upcoming rock pile work dates include 10/15 and 11/5.

Alice Piper stated that Curly Clough is currently in the VA hospital.

Debbie Winton stated that we desperately need members to sign up for snack duty. Please contact Debbie if you can bring snacks to the September meeting. Please remember to bring a covered dish to the rock swap on Saturday - August 27th at 1230 pm

Elizabeth Hixon stated that there would be a project for the youth members in the break room after the business meeting.

Members were reminded that our annual rock swap is Saturday- August 27th from 9:30-11:00 with a potluck lunch to follow at 12:30 pm. Peggy Maggard stated that if you plan on selling at the 9:30 sale you need a tax id number.

Susan Bannon stated that 39 club members and two visitors were in attendance today (Vaughn Sweet and Renae Hixon). Renae won the guest door prize (a pendant and chain). The badge prize was won by David Hixon (a bolo). Larry Skelton won the badge prize- (a butterscotch colored jasper pendant and chain.)

Tony asked all members to pick up a printed copy of the proposal to amend the bylaws that will be read later in the meeting.

Don Atherton introduced Mike Wingo who presented a program on dinosaurs. Mike discussed many interesting facts including the true scientific definition of the life form and the different categories of dinosaurs. He also discussed facts that addressed the warm vs. cold blooded theory and the theory that these animals were destroyed by meteor strike. In addition, Mike explained how many mythological animals including the Griffen and the Cyclops are based on ancient civilizations' interpretations of prehistoric animal fossils. As an added bonus, Mike provided a multitude of dinosaur replicas to serve as visual aids during his presentation.

Horace Paterson submitted several specimen for identification and also brought a polished septarian to show. Marci Fleeker brought a polished dinosaur bone and polished coprolite to show. Tony Giardina brought several pieces for identification and brought a fluorescing mineral to show. Debbie Winton brought several purchased pieces to show including some turquoise.

Secretary Tonona Martin read the proposed changes to the by laws regarding life membership. (Proposed changes are printed elsewhere in this edition of Quarry Quips. In addition to proposals one and two, an additional choice of no change will also be available on the final voting ballot.)

Susan Bannon reminded all members that annual dues are due at the August meeting.

Show Report

By Gene Maggard

Two long serving members of the Show Committee have elected to retire from the committee: Alice Piper, Wheel Chair, and Ray Adams, Fluorescents Chair. Both Alice and Ray have provided long and valuable service to the Show Committee and their efforts have been greatly appreciated. Thank you, Alice and Ray for your service and I am sure that you will continue helping with the show even though you are no longer on the committee.

Please welcome the following new members to the Show Committee and give them a big thanks for agreeing to serve: Marcie Fleeker as Wheel Chair, and Scott Norton as Fluorescents Chair.

Show Committee Meeting: Monday evening, August 22, at 7pm at the Community of Christ Church, 3500 S. Webb, where we have our regular Board meetings. WE will cover the following agenda items:

- Prepare 2012 show budget.
- Select vendors to invite to 2012 show.
- Confirm Rock Pile work dates at DeGoods. The tentative dates are October 15 and November 5.

Other issues brought up by members.



We still need another Show Committee member or two.

Any volunteers?

Proposed Changes to Bylaws

By Don Atherton

In September we will vote on a proposal to change the by laws. Members who attend the September meeting can cast their vote for proposal #1, proposal #2 or can vote to keep the existing bylaws.

Article III. Membership, Section 2 currently states.

(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.

Proposal #1:

(3) Life Membership - Any member in good standing with at least **thirty (30) years of continuous adult membership** 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.

Proposal #2:

(3) Life Membership - Any member in good standing with at least **twenty five (25) years of continuous adult 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.

Get Your Feet Wet; Field Trip Sept. 17

By Lyle Koerper

Start the new Field Trip year by actually getting your feet wet. Saturday, Sept. 17, we will meet at Gypsum Creek (you can wade if you want) in Southeast Wichita from 10 to 11 a. m. This location is great for the entire family. What will you find? The creek has some interesting gypsum formations. And you might even find some evidence of where dinosaurs met their enemies; but, more about that latter.

This will be a simple outing. No advance registration is needed. Bring family and friends. If you have been to this area before, come for the fellowship and help explain to others what they are seeing. You can stay as long as you want, but the "event" is planned for only 10 to 11 a. m.

How to find Gypsum Creek -- Go to 1842 S. Woodlawn and park in the west section of the parking lot of Birds of Paradise. Then, carefully walk across to the west side of Woodlawn where you will find a walkway leading south to Gypsum Creek. Walk east under the bridge. After about 200 yards you will see the gypsum in the creek. I hope to be there before you arrive. We'll say hi, and sign you up for the special contest.

We'll tell you about this area possibly being a battle ground for fighting dinosaurs. I got this information several years ago from a native who spent many days of his childhood along the creek with imaginative buddies. Most of the gypsum is clear or cloudy. But some is blood red. And blood is the reason. This must have been an area where the dinosaurs met in combat. The evidence was clear to the early creek explorers, and to this day I have no reason to doubt their reasoning.

Our contest is a simple one. You bring to the September regular meeting your prize finds along Gypsum Creek along with a story. Their will be a prize for the best report.

Gypsum is a common Kansas mineral. Selenite is the crystalline variety of gypsum. It takes its name from the ancient Greek goddess, Selene -- but this is not a full article so we won't tell you about Selene. Satin spar is another variety of gypsum. All of this is found along Gypsum Creek. We'll have much more information about gypsum and what to look for.

When I was talking with the "local" about the creek, he suddenly stopped talking and put his ear to the ground. "What are you doing," I asked. "I don't want a dinosaur to sneak up on us," he responded. I'm told dinosaurs rest from 10 to 11 -- so morning should be a good time for us to get our feet wet in Gypsum Creek.

Reprinted from "Wichita's Building Blocks: A Guide to Building Stones and Geological Features" by Lawrence Skelton, 1997, published by Kansas Geological Survey

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.

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. If you have questions you can reach me at (316) 722-7115.

Field Trips: Where Would You Like To Go?



By Lyle Koerper

Field trips are fun, educational and provide good fellowship. Although Wichita is not located in an area of limitless field trip possibilities, there are some good places to go. As Field Trip Coordinator I'm very interested in knowing where WGMS members would like to go. If you don't have a specific location in mind, what would you like to find on a trip? And, would you be willing to lead a trip? Please contact me: Phone (316) 722-7115. Thanks!

Second Field Trip Will Be in October:

Mark Your Calendar. Tony McClafflin has arranged with the Corps of Engineers at Melvern Lake for a field trip there Saturday, Oct. 1. This will be an all-day event meeting at Melvern at 10 a. m. We will probably visit some other places nearby. Full information on how to register, what you will find and what to bring will be in the September "Quarry Quips." If you have not been to Melvern Lake, look on your Kansas map northeast of Emporia on Route 75. This will be a family friendly event.

RMFMS Bulletin Contest

By Carolyn White

Mining in the Tri-State District

By Lyle Koerper, Apr 2010 Quarry Quips
Photo Story - First Place

Ruby

By Angela White, May 2010 Quarry Quips
Junior Poetry - First Place

Sedimentary Structures and Trace Fossils

By Larry Skelton, Aug 2010 Quarry Quips
Adult Article Advanced - Second Place

Field Trip to Tri-State Mining Area

By Curley & Mary Clough, Mar 2010 Quarry Quips
Adult Article - Second Place

A Visit to a Zinc Mine in the Tri-State Area

By Leo Heidebrecht, Feb 2010 Quarry Quips
Adult Article - Certificate of Appreciation

RMFMS Selenite Crystal Collecting Field Trip

By Gene Maggard, May 2010 Quarry Quips
Adult Article - Certificate of Appreciation

Uncle Josh Rockhould Adventures: Arkansas Quartz

By Greg Weisbrod, Jul 2010 Quarry Quips
Adult Article - Certificate of Appreciation

You can view past editions of the Quarry Quips on our website at www.wgmsks.org



AFMS - Field Trip Updates

By Doug True, *Inter-regional Field Trip Chair*
Via May 2011, AFMS Newsletter

WARNING- The Rules for fieldtrips and collecting are changing on public lands.

Actually these rules are for any organized group using our public lands. The rules are open for interpretation, but most districts are saying that if there is a planned trip by two or more people and the schedule of your trip is published or posted, you must apply for a recreation permit.

You must find the local district you are going to collect in, determine if it is run by the BLM or USFS and then request a recreation permit form 2930-1,. In the application you will have to furnish maps (topographical, a written plan of your function, area you are camping and what you are collecting, and the estimated number of attendees. You will also be required to show a certificate of insurance naming the BLM or USFS as insured. In some cases they may require you to supply Porta Potties.

In your report you should indicate the specific areas where you plan on collecting and indicate if you will be

digging or surface collecting. You have a much better chance of getting a permit if you plan on surface collecting. If you're digging, the selected area will be scrutinized by a number of different departments: Archeological, Paleontology, Endangered plants, etc, etc.

After a review of your proposal, all or part of your request might be turned down. You need to work with the recreation officer and plan your trip together as this gives you a better chance of being successful.

In talking with different BLM districts their numbers seem to vary as to what constitutes a group. There will also be a processing fee of around \$100 dollars. If you are planning a trip to public lands, **please check to see if your group trip is good to go.**

Ruby

By Angie White

I am an unfound ruby
I wonder when it will be my turn to be ripped from the
iron grips of this Earth
I hear the clack of hammers somewhere outside this tomb
I see a future where I shine
I want to be found and released
I am an unfound ruby

I pretend to be a sparkly ring
I feel so alone
I touch the rocky Earth
I worry I will never be found
I cry as I hear the miners leaving for the day

I understand that they will come back tomorrow
I say to myself you must be patient
I dream of the day I break free from this prison
I hope they find me soon
I am an unfound ruby



Photo from <http://www.corunduminium.com/>

Estate Sale



University of Nebraska, Professor Ray Fabian 's collection will be sold Saturday and Sunday, August 13th and 14th at 18th & O Street in Lincoln NE

The Feldspar Group

By Lawrence H. Skelton
Wichita, Kansas

It's quiz time! What familiar mineral may compose 60 percent of the earth's crust and forms in igneous, metamorphic and sedimentary environments? Give up? Actually, this is a trick question since it is not a single mineral that meets these criteria but is a group or family of minerals – the feldspars. The name originates from the German words “feld” meaning field and “spar,” a mining term referring to any non-metallic, cleavable, transparent mineral (calc-spar, fluorspar, etc.). The feldspar group consists of 25 or more minerals which display similar chemical compositions and generally crystallize in the triclinic crystal system (the exceptions, orthoclase and sanidine, forming in the monoclinic system). Some of the rarer members, sylvanite for example, crystallize in the orthorhombic system. Chemically, the feldspars are aluminum silicates combined with a Group Ia or IIa alkali metal such as sodium, potassium, calcium, strontium, barium, etc. The rare feldspars, buddingtonite and reedmergnerite respectively contain an ammonium ion (NH₄) in lieu of an alkali metal and boron in place of aluminum. Celsian is a barium feldspar.

Ten members of the group are familiar to mineral collectors: the plagioclase feldspars which are albite, oligoclase, andesine, labradorite, bytownite and anorthite and the alkali or potash feldspars: orthoclase, microcline, sanidine and anorthoclase. The potash feldspars, orthoclase and microcline are dimorphous, that is, they have the same chemical composition but form in different crystal systems. They both are potassium aluminum silicates. Microcline forms in deep intrusive rocks, granites, etc., where cooling is slow. Orthoclase crystallizes at moderate depths where cooling is faster. Sanidine, which is considered by some as a high temperature form of orthoclase, forms in quick cooling, extrusive lavas such as rhyolite and trachyte.

It sometimes happens that the two types, potash and plagioclase, form a homogeneous mixture that is half microcline and half albite. Generally but not always, as the mineral solution cools, the two separate by a process called exsolution and the sodium in albite and the potassium in microcline migrates and forms alternating layers of more or less pure albite and microcline. The result is perthite, a visibly laminated feldspar. The plagioclase feldspars form an isomorphous series with albite, a sodium aluminum silicate at one end and anorthite, a calcium aluminum silicate at the other. The remaining four plagioclases named above contain progressively less sodium and increased calcium to the end member, anorthite that contains no sodium. In pegmatites, albite sometimes assumes a platy habit and is then called cleavelandite.



Sources

One might expect that such commonly occurring minerals as feldspars may occur in large crystals and that is indeed the case. A single microcline crystal in the Devils Hole beryl mine at Keystone, South Dakota, was measured at about 153 feet in length, 113 feet high and 45 feet wide. Its estimated weight is nearly 17,537 tons. A perthite crystal at the Hugo Mine in Keystone measured 35 by 15 by 8 feet and weighed approximately 250 tons and an orthoclase crystal in the Ural Mountains of Russia reportedly was 33 by 33 by 1.3 feet and weighed around 120 tons. A microcline crystal in the Karelia area of Russia weighed more than 2,000 tons. These measurements were taken on the exposed portions of the crystals so proven dimensions may be less or greater.

Feldspar is an important industrial mineral. World production for the year 2010 is estimated to be a little more than 22 million tons, 55 percent of which is mined in Italy, Turkey and China in that order. Other foreign producers are Thailand, Japan, Spain, France, the Czech Republic and Mexico. United States production during 2010 was 628,317 tons valued at about 36 million dollars. The most important feldspar mining district in America is in North Carolina which has “led the pack” since 1917. Together, North Carolina, Virginia and California produced 89 percent of national output. Other feldspar producing states are: Georgia, Idaho, Oklahoma and South Dakota which jointly accounted for 11 percent of America's 2010 feldspar production.

The Spruce Pine Mining District is in Mitchell, Avery and Yancey counties in western North Carolina which is part of the Blue Ridge physiographic province and is the source of much of that state's feldspar which occurs in a granitic rock called alaskite. Alaskite is a deep-seated igneous rock which erosion has brought to the surface. It is composed of 60 percent feldspar (40 percent oligoclase and 20 percent microcline), 25 percent quartz and 15 percent muscovite mica. Alaskite, by definition contains few if any dark minerals although a small percentage is to be found in some areas of the exposure. Pegmatites in the area consist of the same proportional contents as the alaskite and were formed from the same magma. The overall geology in western North Carolina is rather complex and resulted from repeated plate tectonic movements over the nearly half-billion years from late Precambrian to the end of the Paleozoic era. The alaskite and

(continued on page 9)

Peggy's Pearls and More Close Out Sale

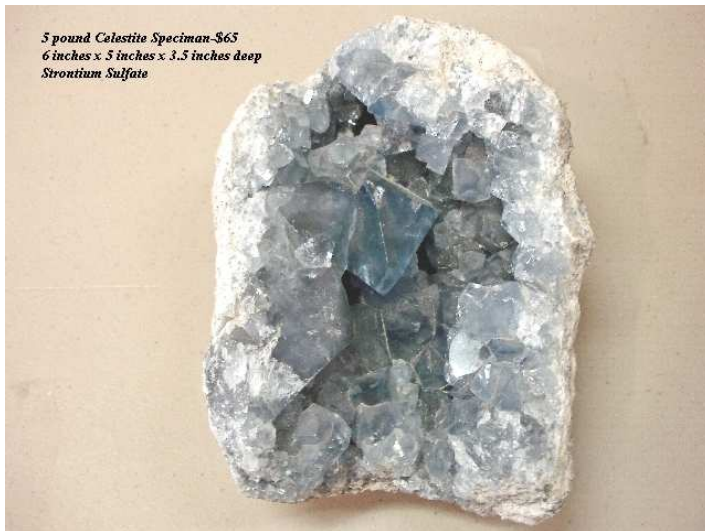
We will have these two 5 pound Celestite-“Strontium Sulfate” Specimens for sale at the Saturday, August 27

**WGMS Rock Sale Community of Christ Church
3500 S. Webb Road, Wichita, Kansas**

9:30 am 12:00 p.m.

Sale Price is \$65.00 each “Subject to Prior Sale”.

My most recent gem and mineral catalog had a wholesale price of \$45 for a fist size piece.



The Feldspar Group, (continued from page 8)

pegmatites were emplaced 380 to 390 million years ago during the Devonian period and are among the youngest igneous rocks in that part of the Blue Ridge.

Feldspar originally was separated from pegmatites or alaskite by hand cobbing. The rock was extracted and broken up by regular mining methods; then the feldspar and other minerals were separated and segregated by hand. That time-consuming and labor intensive method continued until 1946 when a froth flotation process was developed and put into commercial use. “Giant” crystals such as those found in the Black Hills pegmatites and previously mentioned were mined and crushed, requiring little additional treatment. Such massive deposits are limited resources so larger less pure deposits such as alaskite formations with their large proportions of feldspar must be used.

Commercial volumes of feldspar in Hancock County, Virginia are extracted from aplite, a fine grained granitic rock of which plagioclase feldspar (anorthosite) is the major component, comprising 85 to 90 percent of the rock. A coarse-grained phase, the Montpelier metanorthosite was intruded into the aplite during Precambrian time. It contains plagioclase crystals ranging from 10 to 14 inches in length.

The present-day feldspar resources of California, Idaho and Oklahoma are surprisingly in the form of sand eroded from granitic rocks. Some sandstone and stream delta sand deposits in California contain quartz and feldspar which ranges from 10 to 35 percent of the total volume. In Idaho, production is from a lacustrine (lake deposited) sand that contains an estimated 30 percent feldspar. Feldspar comprises 25 percent of Arkansas River sand being mined in Oklahoma. Georgia's feldspar production is from two granite intrusions: the Siloam granite in Greene County and the Shadydale granite in Jasper County. The Siloam is composed of 75 percent feldspar in the form of 47 percent microcline, 25 percent plagioclase and three percent perthite. Feldspar from both deposits is blended to create a high-potassium product.

(continued on page 10)

Uses

With present world consumption of 22 million tons per year, we should expect feldspar to have a wide variety of uses. Major end uses are in the glass and ceramics industries. In glass manufacturing, feldspar acts as a flux to lower the melting point of silica, thus reducing the amount of energy required to achieve a molten condition. It provides resistance to chemicals and the alumina content of the feldspar increases the hardness of glass. The greatest use is in container glass (jars, bottles, etc.) but feldspar also is used in manufacture of flat glass (plate glass, window panes, automobile glass, etc.).

The ceramics industry is another important consumer of feldspar minerals. Ceramic products such as tiles, porcelain and chinaware ranging from dishes to commodes and sinks have feldspar mixed with the clay from which they are made. The feldspar lowers melting temperatures and acts as a cement in the crystalline phase of other ingredients. Much of the clay itself is a weathering product of the feldspar component of granite. Ceramic glazes are principally albite feldspar that fuses to a glass-like finish on ceramic items. Other important uses are as fillers in paper, textiles, plastics and rubber. The coating on welding rods is made with feldspar which also forms a part of urethane and latex foam. Feldspar is used as a bonding agent in manufacturing grindstones. A surprising use is for poultry grit. Labradorite and anorthosite, an igneous rock composed almost totally of plagioclase are slabbed, polished and used for decorative building stones.

marq.wikispaces.com/Moonstone



Both potash and plagioclase feldspars find use as gemstones. Moonstone, known for its bluish adularescence is a mixture of albite with oligoclase or orthoclase. The adularia moonstone is a variety of orthoclase. It may be transparent and colorless. High quality New Mexico moonstone may have a tan to light brown if colored. The best moonstone is said to be from India and Sri Lanka. Amazonite is a green microcline popular for gems and carving. The blue to green color may be due to trace amounts of lead plus water. However, there is some evidence that traces of rare earth metals may have a role in the color. Sodium impurities in microcline may separate by exsolution into layers of albite, the thin white banding frequently visible in amazonite. In the U.S., excellent amazonite occurs in pegmatites in the Pikes Peak area of Colorado and at Amelia County, Virginia.

At present, the most desirable feldspar is the faceting grade sunstone from Oregon. It is an orange to red labradorite colored by nano-size inclusions of metallic copper. The best faceted sunstones presently retail at \$100.00 to \$500.00 per carat depending on color and size. Labradorite from this area also occurs in colorless to yellow and green transparent crystals. It should be noted that labradorite and andesine from Mongolia reportedly are being artificially infused with copper to produce a red, green or bi-colored gemstone which is being introduced as sunstone to unwary buyers.

Andesine, bytownite, orthoclase, oligoclase (orthoclase and oligoclase also form varieties of sunstone), anorthoclase and albite may occur in transparent, colorless to tinted crystals from which attractive gems may be faceted.

The "mixability" of the feldspars leads to exsolution and subsequent forming of thin laminations (lamellae) within a common crystal. The lamellae vary in refractive index between the very thin layers of feldspar types, a condition leading to a play of colors in some specimens and the labradorescence in labradorite. The best of this labradorite is marketed as "spectrolite."

Polished Spectrolite
<http://en.wikipedia.org/wiki/Spectrolite>



Suggested reading

- Bateman, Alan M., 1950. *Economic Mineral Deposits*: New York, John Wiley & Sons, p. 706 – 708.
- Kraus, E. H., Hunt, W. F., & Ramsdell, L. S., 1959. *Mineralogy – An Introduction to the Study of Minerals and Crystals*: New York, McGraw-Hill Book Co., p. 405 – 413.
- Merschat, Carl E., 1997. *Geology of Yancey County*. Raleigh, North Carolina Geological Survey, Geologic Note No.5, 22p. (www.geology.enr.state.nc.us/yancey.../Geology_of_Yancey_County.doc).
- O'Donoghue, Michael., 1988. *Gemstones*: Cambridge, Eng., University Press, 372p.
- Potter, Michael J., 2006. Feldspars in Kogel, J.E., Trivedi, N.C., Barker, J.M. & Krukowski, S.T., eds. *Industrial Minerals and Rocks: Commodities, Markets and Uses*: Littleton, Colorado, Society of Mining, Metallurgy and Exploration, p. 451 – 461.
- [http://: www.minerals_n_more.com](http://www.minerals_n_more.com) contains a list of feldspar minerals.



Member Birthdays

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



September:

- 01 Caelan Schuman
- 04 Pat McCombs
- 07 Robert Carr
- 08 Diane Degood, Tony McClafin
- 09 Miklos Lorik
- 10 Joyce Weisbrod
- 13 Venetta Nutter, Jim Meier
- 16 Tex Gough
- 17 Diana Whisler
- 20 Steve Hurlock
- 21 Marvin Lundquist
- 22 Elizabeth Hixon



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.



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; Fri. and Sat., contact Carolyn Tunnicliff, 1130 Francis St. #7010, Longmont, CO 80501, (720) 938-4194; e-mail: ctunnicliff@comcast.net; Web site: 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; contact Sara Brasel, (918) 458-0801; e-mail: crosstimbersrd@earthlink.net

20-22 LAKE GEORGE, CO: Lake George Gem & Mineral Club, U.S. Hwy 24, 8a-5p, free admission; contact Becky Blair 719-748-3030, blairra@hotmail.com or John Rakowski 719-748-3861, rakgeologist@yahoo.com

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; contact Edward Hakesley, 821-1 Alexis Circle, Mountain Home, AR 72653, (870) 424-0956; e-mail: edscamp3@yahoo.com; Web site: www.ozarkearthscience.org

SEPTEMBER:

2-5—CRAWFORD, NEBRASKA: 25th annual show; Northwest Nebraska Rock Club; Crawford City Park, Main St.; Fri. 8-6, Sat. 8-6, Sun. 8-6, Mon. 8-6; free admission; agate bed field trips, 13th annual Agate Collectors presentations, buy, sell, trade, rocks, fossils, artifacts, jewelry; contact Wade Beins, PO Box 569, 120 Gordon Ave., Chadron, NE 69337, (308) 430-1399; e-mail: agates@bbc.net

3-5—SILVER CITY, NEW MEXICO: 28th annual show; Grant County Rolling Stones Gem & Mineral Society; Grant County Business and Conference Center, Hwy. 180E, next to Ace Hardware; Fri. 10-5, Sat. 10-5, Sun. 10-4; free admission; contact Marcia Andre, (575) 534-0006; e-mail: rollingstonesgmsshow@gmail.com; <http://rollingstonesgms.blogspot.com/>

16-18—ENID, OKLAHOMA: Annual show and sale; Enid Gem & Mineral Society; Oak Wood Mall, 4125 W. Owen K. Garriot Rd. (Hwy. 412W); Fri. 10-9, Sat. 10-9, Sun. 12-6; free admission; contact Billy Wood, (580) 234-5344 or (580) 402-5568; e-mail: baronladislaus@att.net

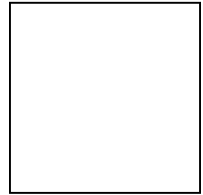
24-25—SOUTH SIOUX, NEBRASKA: 46th annual show; Siouxland Gem & Mineral Society; South Sioux City Senior Center, 1501 W. 29th St.; Sat. 9-6, Sun. 10-4; adults \$1.50, students 12 and older 50 cents, children under 12 free; contact Bob Powell, (712) 378-2775



WICHITA GEM & MINERAL SOCIETY, INC

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TIME VALUE
DO NOT DELAY

Next Meeting:

Saturday, August 27th

Community of Christ Church
3500 S. Web Rd

9:30 am Rock Swap/Sale
12:30 pm Pot Luck
1:30 pm Auction

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

Bring a covered dish. See you there!

What's in this Issue

Page	Club Business	Page	Special Interest
2	About Our Club	7	AFMS News: Field Trip Updates
3	Calendar - WGMS Events	7	RMFMS News: RMFMS Bulletin Contest Winners
6	Field Trips		
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11	Member Birthdays	6	Labor Day Field Trip Idea
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5	Show Report	cover	WGMS Rock Sale and Auction

Quarry Quips Article Deadline: Friday, August 2nd
Send articles to Carolyn White. Contact information at top of page.
Material in this newsletter may be used if proper credit is given.

