

# Little Gems

Volume 2 Issue 7

JULY 2009

## Message from the President

Hey Guys,

Can You believe that it has been six months already? Time does really fly when your having fun and I really have been having fun being your president this year.

The field trips have been outstanding and Gary is always checking out new spots of interest. The campouts could not have been more fun, even the high winds made one trip memorable.

Thanks to Leonard and Jack our programs have proved to be a big success even though we had to go to plan "B" due to last minute cancellations a couple of times.

The lessons on the "Nature of Earth, an Introduction to Geology" will end in August. If there are enough people interested we can start it over again and this time we'll do four lessons each month. If you are not familiar with the classes, we have been doing three half hour DVD lessons on the third Wednesday of the month at the Kingman Library from 6:30 to 8:30 PM come and join us.

Gary and I have been trying to get a G. P. S. class together for a while now, but scheduling has been a problem. As soon as we get a day and place we will post it in the "Little Gems".

To all I want to say thank you for making this first six months so much fun.

"C" Russell  
President

## Regular Meeting

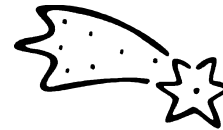
July 14, 2009

Katherine Heidenreich

Senior Center

1776 Airway Ave., Kingman, AZ

Regular Meeting 7 PM



## Special Guest Speakers

Keith & Dana Jenkerson

Meteorite Hunters

Got a space Rock ....

Bring it for Identification

## Inside this Issue



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THINK  
COOL  
THOUGHTS

## ♣ Club Information ♣

The Mohave County Gemstoners' Club is a member of the Rocky Mountain Federation of Mineralogical Societies (RMFMS) and associated with the American Federation of Mineralogical Societies (AFMS).

The purpose of the Mohave County Gemstoners is to:

1. Stimulate interest in Mineralogy and Lapidary Arts
2. Stimulate individual's interest in cutting and displaying of minerals, fossils and gemstones.
3. Stimulate interest in Stonecutting, carving and setting of fine gems and jewelry.
4. Stimulate interest in other areas, such as faceting, jewelry design, jewelry fabrication and metalsmithing of jewelry.

The Gemstoners meet the second Tuesday of each month at Kathryn Heidenreich Senior Center, 1776 Airway Ave., Kingman, AZ at 7:00 PM. In March, June, September and December there is a potluck dinner that starts at 6:30 PM.

Fiscal year for memberships runs from January 1<sup>st</sup> thru December 31<sup>st</sup>. Dues are \$15.00 per person, \$20.00 per couple and \$25.00 for family (residing in the same home). Family sponsored Junior Membership cost is \$8.00. Annual dues are payable on January 1 and are delinquent after the February meeting. Remit payment to Membership Chairman.

Name badges will be required for all members at a cost of \$8.00 for pin type and \$9.00 for the magnetic type each.

*Little Gems* is published monthly. It is available online at [www.gemstoners.org](http://www.gemstoners.org) Submissions are requested to be to the editors by the 15th of each month, preferably by email :

[gemstoners@live.com](mailto:gemstoners@live.com) or @928-263-1480. *Little Gems* is also published via email - if you have internet, please share your address with the editors. This saves the club money (just under \$1.00 per issue per membership) and you will have the newsletter immediately and be able to view it in color. The Newsletter is in PDF format so it will be necessary to download AdobeReader (free program) to view the newsletter.

## ♣ 2009 Club Leadership ♣

Elected Officers:

President - "C" Russell (928) 846-0927  
 Vice President - Pete Hansen (928) 565-4321  
 Secretary - Fred Bunge  
 Treasurer - Dave Sims (928) 692-3797  
 Sergeant At Arms - John Smith  
 Board of Directors:  
 One-Year Position: George Tirpak  
 Two-Year Position: Leonard Deutsch  
 Three-Year Position: Laraine Smith  
 Club Committee Chairpersons

Academic Advisor - Rick Vromen  
 By-Laws - Nan Russell  
 Newsletter Editor - Donna Robinson  
 Education - Open  
 Field Trips - Gary Gann  
 Greeters/Hostess - Cheri Hommel  
 Historian - Leonard Deutsch  
 Jr. Leader - Laurel Nelson  
 Membership - Nan Russell  
 Program Director - Open  
 Publicity - Open  
 Photographer - Melanie Hecht  
 Refreshments - Mary Gann  
 Show Chairman 2009 - Nan Russell  
 Scholarship / Donations - Open  
 Social Director/Special Events - Susi Green  
 Sunshine - Open  
 50/50 - Open  
 Ways and Means - Open  
 Telephone - John and Laraine Smith  
 Webmaster - Leonard Deutsch



Stay up to date, check often  
[www.gemstoners.org](http://www.gemstoners.org)

Mailing Address:

Mohave County Gemstoners  
 P.O. Box 3992  
 Kingman, AZ 86402

## Minutes of the June 2009 General Meeting



The evening started off with our Potluck Dinner. A very large turnout and several new members were also in attendance as well as one Life Member.

Due to unforeseen circumstances, our Guest Speaker was unable to attend our meeting. We were very fortunate to have Ed Huskinson give us a presentation on fossils. Each of the three types of fossils were explained and many exhibits were passed around the room for closer examination by members.

The meeting was called to order at 8:18 PM by our President, "C" Russell. The flag salute was led by the Vice President.

Previous Meeting Minutes: Approved as printed in newsletter.

Treasurer's Report: An accounting of receipts and expenditures was presented.

Sunshine Corner: Bob Nelson is now out of KRMC ICU and is doing much better.

### COMMITTEE REPORTS:

**Field Trip** – Trip to Flagstaff was a pleasurable trip joining their club meeting and going on a joint field trip which garnered petrified wood, agate, jasper and chalcedony. Another trip is being planned for either September or October.

Exploratory Trip led by Stephan was made to an area behind the Nucor Steel Mill where we found a lot of Dendrites. Another trip was led by Jack to the Black Mountains where we collected geodes, chalcedony, agate and obsidian.

**Membership** – No report - New members who were present, introduced themselves.

### OLD BUSINESS:

1. Dues have been paid to the Chamber of Commerce.

2. December Potluck or Dinner? Most venues that have been checked are booked throughout December, so it will be a Potluck Dinner for this December.

### NEW BUSINESS:

1. A water-cooled, gas powered masonry saw has been purchased. The saw will be kept by the Field Trip Chairman and operators will be trained prior to being allowed to operate it.

2. Progressive Dinner – We are seeking volunteers to allow us to visit their homes and look at their equipment/displays and what course you would like to have – Contact "C" as soon as possible.

### FOR THE GOOD OF THE ORDER:

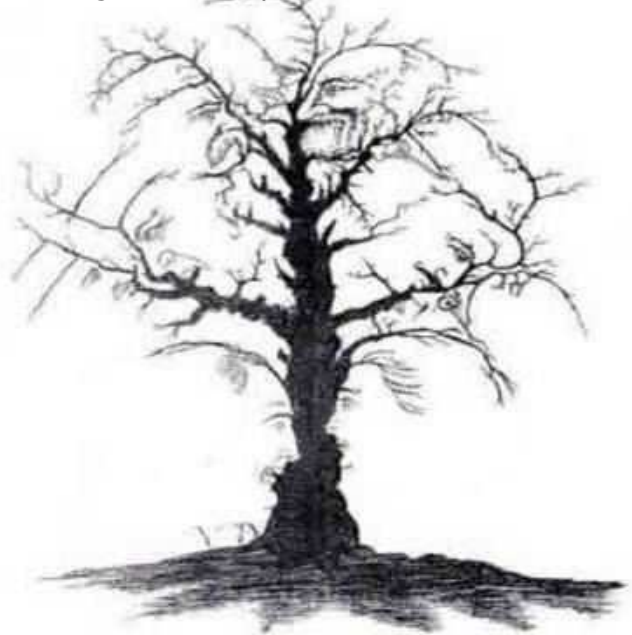
1. New Mexico Outing – Aug. 29 – Sep. 7 with the New Mexico Rock Club. Contact Gary, "C" or Nan if you are interested. Bring rocks/slabs to share with other state members attending.

50/50: Pete Hansen - \$35 and "C" Russell - \$25.50.

As there was no further business, the meeting was adjourned at 8:50 PM.

Respectfully Submitted,

Fred Bunge, Secretary



Can you find the ten (10) faces in this drawing?

Artist unknown

## Field Trip Reports for June 09



Jack Hommel led a group June 7th off Cottonwood Road passing through a vast valley between the Black Mountains. We traveled quite a ways in to an area that had an abundance of chalcedony, geodes and fire agate wannabees. The unusual was seeing thin seams of chalcedony laying on the surface that seemed to pass

through the hills to the other side. The day turned out almost perfect. The weather was A-1, but Bill turned his knee and had to stay seated for the rest of the day.



There are wild burros in the area that looked healthy and happy.



Gann photo

It was nice to have Richard and Pricilla, Bill, and Lynn join us for the day. Their schedules don't always allow them to come.



Wake up Fred someone  
is taking our picture!

Fred knows how to live the good life. A little rock hounding, a little snooze.

Gann photo

Editor manipulation



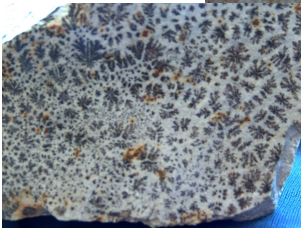
## June 28th Field Trip Report

At 7 AM we met at the Powerhouse to go hunting dendrites. We all figured that we would last until around 11 am, but by 9:30 it was too hot and everyone had found their samples of dendrites. They are excellent specimens. Some are so small they look like leopard spots, but look closer and you can see the fine branching detail.



Shirley and Bill were able to join us for the morning. It was nice to have them along.

Left is a 4" dendrite



Mary calls this leopard spots, but every "spot" is a teeny tiny dendrite

Rockhound Favorite Position



We all should be smarter for the blood rushing into our brain and limber for all the bending over.

## FIELD TRIP GUIDELINES - MCG



**Sign in is 15 minutes before departure.**

- Leader will state approximately how far, road conditions, and if 4WD is required when each member signs in.
  - Each vehicle is to keep the one behind in sight and STOP if the car or truck is not visible (unless otherwise stated by the leader).
  - Always notify the leader if you are hiking or driving to another site and your approximate return time.
- Participants must notify the leader if they are leaving the group and not planning to return and sign out (with time) and return the radio.
- Members are requested to wear name badges.

- Handheld radios: stay on Channel 3



## Field Trip Schedule

### Progressive Field Trip-House to House (4)

When: July 26th, Sunday

Where: New Safeway Parking lot

Time: 9AM

Bring money you might see something different!

It may be an opportunity to pick up some material or tools or finished lapidary.

Nothing is scheduled for August at this time.  
Anybody have a suggestion?

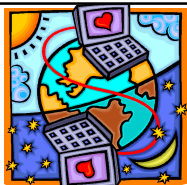


"C" found this guy. He was already dead. Still soft. Maybe a hawk dropped him. He was about a 3 footer.

1. When you get a very fine sticker or thorn in your flesh and you can't see it, press a piece of very high grade duct tape (high grade, because it has the best adhesive) very firmly on the area containing the sticker. Wait 10 seconds and pull the tape. Most of the time the sticker will come right out with no additional pain. If it doesn't work the first time, try again.
2. If you get a minor but painful burn (hot grease, steam, or other) in the kitchen or the camp, spray Banana Boat Sport Spray with SPF30 and enjoy the relief. For some unknown reason it offers immediate and lasting relief. It works on sunburns also, even after you've burned.



From Cheri Hommel



Melanie Hecht is new to the world of Rockhounding. She is moving forward in leaps and bounds.

She bought a great used tumbler has enrolled in classes at MCCC and is constantly searching the web for more information. The following are websites she has found and wants to pass on to fellow members.

1. DesertUSA Rockhounding – Treasure Hunting Gold Prospecting:  
[http://www.desertusa.com/Thingstodo/du\\_ttd\\_treasure.html](http://www.desertusa.com/Thingstodo/du_ttd_treasure.html)

This website has links to a lot of great information about where to go to find rocks. I looked at a couple of them and could hardly stop reading.

2. Rock Collecting Sites:  
<http://www.42explore.com/rocks2.htm>

List of website all over the US that cover rockhounding locations.)

Rock Collecting Around the USA - State by State:  
<http://www.gemandmineral.com/states.html>

3  
<http://www.rockhounds.com/rockshop/table.shtml>

These three URLs probably link to most of the websites on the Internet about rock hounding. If you want me to, I can create a list of URLs for Arizona. Let me know if you want me to do that. Thanks!

<http://www.rocktumblinghobby.com/index.html>

4. Here's another link to the RockHoundBlog:  
<http://rockhoundblog.com/> You have to scroll down to find the Search box and categories. I found them when I did a search for "fire agate". There is a great post with lots of pictures and great information.



### Life Members as of May 2009

Eiko Bosserman  
Betty Busch  
Mildred Page  
Lucille Thompson  
Ruth Tacquard

**Gemstoner**



**Wishes**

To Bob Nelson who is slowly recovering and is out and about, keep up the fight &



Bill Pelter is recovering from knee replacement.

### A Very Warm Welcome to the new members who have chosen to join Mohave County Gemstoners

William & Peggy Moore from Las Vegas



They met the Gemstoners at the Burro Creek outing and decided to join us. Yeah!



## IN THE SPOTLIGHT

Fourth of July At  
Nan and "C" 's

Photos by A. Sanfilippo

It was a truly great evening at the Russell home on the Fourth of July. We had a wonderful mix of Rock and Non-rock folks. Everyone had a fun and comfortable evening. Jack brought along his son Todd and his wife Rhonda from California, I brought my daughter Annemarie and her husband Nick from New England, George brought his friend June. Glenda and Wayne brought a couple of energetic teenagers. I was just a great all around mix of people.

The fireworks show was outstanding. Even though we were a mile or so away, some of the displays looked like they were coming right at you.



## About Dendrites....Two Qualified Opinions

### How do dendrites form?

Anyone who has seen "moss agate" is familiar with the delicate branching structures that look like fossil plants. These features, called dendrites aren't plants, and the processes that form them are essentially inorganic.



Dendrites are fairly common.

They often form on bedding plane and joint surfaces in limestone, shale, granite and other rocks. They frequently develop during the industrial processes of making various alloys. They control the shape of some snowflakes. Most annoyingly, they form as frost on your car windshields on wintry mornings. Dendrite refers to any mineral that grows in a delicate branching pattern. The habit is similar to arborescent, although I use tend to use the term arborescent when the branches are relatively stout, rather than moss-like. Many minerals can take on dendritic forms. These include various iron and manganese hydroxides, copper, gold and silver. How do these structures form if they aren't plants? Dendrites are thought to form when crystallization is rapid and there is a limited amount of what chemical is formed available. These are conditions associated with disequilibrium. Frost on your windshield is a good example. The little frost flowers grow fast, but if there is too much moisture they inter-grow to make a solid sheet of ice without the delicate form showing. Black dendrites on a limestone bedding plane are another example. These make what people often "pyrolusite dendrites", although recent analyses have shown them not to be pyrolusite, but instead other manganese hydroxides such as romanechite, birnesite, coronadite, and cryptomelane. At any rate, a



cryptomelane dendrite

fluid bearing manganese in solution is seeping along a bedding plane surface as little tendrils of liquid. The liquid dries out, becomes supersaturated in manganese compounds and the

dendrites form fast. How-

ever since there isn't a lot of manganese in the tendrils to start with, the manganese hydroxide doesn't form a solid sheet, preserving the fractal patterns of the fast mineral growth. Dendrite formation can be modeled artificially and studied quantitatively. This is done because understanding dendrite growth is an essential part of material

science, especially alloy formation. It turns out that the shape and amount of dendrite growth affects all sorts of properties of materials - such as their flexibility, springiness, stretchiness, electrical conductivity and so forth. NASA did a crystallization experiment on a Space Shuttle mission to study the nature of alloy growth under weightless conditions. A video of growing copper dendrites can be found at

<http://nepp.nasa.gov/whisker/dendrite/index.html>

. Dendrites can be modeled exactly by simple computer programs in which the computer constructs what happens when sticky particles encounter another at random. The way they stick together beautifully generates dendrites. So this random relationship over time turns out to form an elegant pattern. A lot of nature works this way. In minerals dendrite growth isn't quite random. The little atoms (particles in the above experiment) don't stick at random, but do so according to the crystalline structure of whatever mineral they are forming. Thus in ice and snow the branching often takes a hexagonal form and in copper, a lot of branching is at right angles, consistent with copper's cubic crystal structure.

-Dr. Bill Cordua, University of Wisconsin-River Falls

### Caltech News Release via California Geology (10/79)

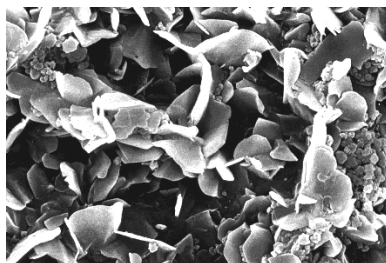
#### **Lithosphere (May 1993); Fallbrook Gem and Mineral Society, Inc.; Fallbrook, CA**

Dendrites, crystalline, black, fern-like patterns that resemble forest scenes have captured the fancy of collectors for centuries. Dendrites, normally deposited on fracture surfaces in rocks, are formed from manganese that has been leached from surrounding rocks and soil by water.

For many years, scientists presumed that dendrites were composed of pyrolusite, a manganese oxide common in ore deposits. However, this mineral identification could not be confirmed because

dendrites are formed from crystals so small that they cannot be characterized by X-ray diffraction, the standard diagnostic tool for analyzing minerals. Recently, California Institute of Technology geochemists George R.

Dendrite Crystals



Rossman and Russell M. Potter applied infrared spectroscopy, an analytical technique that illuminates mineral samples with infrared radiation, to identify the mineralogy of dendrites. Because specific minerals absorb specific patterns of infrared wavelengths, infrared spectroscopy has become a valuable tool for analysis of very fine-grained minerals. Results of infrared spectroscopy analyses demonstrate that dendrites are formed by any one of several manganese oxides -- none of them pyrolusite. Manganese oxides are differentiated on the basis of the internal arrangement of their atoms and the content of some minor elements. For example, the manga-



Todorokite Dendrite. The Dendrite is raised above the surface

nese oxide romanechite forms dendrites in pegma-

tites of the Black Hills region of South Dakota; hollandite dendrites are from Afton Canyon, California; todorokite is found in the gem mines of Pala, California; and cryptomelane is from the southwestern United States. Each dendrite is

formed from a specific manganese oxide. No mixing of manganese oxides within the dendrite was observed in the samples tested.

Infrared spectroscopy has also been applied to the analysis of desert varnish [see [Origin of Desert Varnish](#)]. It was found that desert varnish is about 70% fine clay and 30% manganese and iron oxides. The manganese mineral in desert varnish is the oxide birnessite. In comparison, dendrites contain virtually no clay, and none of those analyzed thus far has contained birnessite.

The preceding article was published in the May 1993 issue of *Lithosphere*, the official bulletin of the Fallbrook [California] Gem and Mineral Society, Inc; Richard Busch (Editor).

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Mohave Desert romanechite dendrite

## Nan & "C"'s Tarantula

This 4th of July guest caused quite a stir as it came out of its burrow to hunt under the outside light.

This guy was maybe four or five inches, ok, Dennis said maybe three, but was oblivious to the crowd that gathered around and was looking at it.

They are one of the good insects. They will not bite humans unless severely provoked, eat good-for-nothing bugs and even baby mice, stay close to the burrow they chose as a spiderling and live long lives. Females can live up to 35 years. Males not so much.

So if you see one, just admire it, do not kill it.



**KINGMAN LIBRARY**  
**DVD SERIES 6:15**  
**3RD WEDNESDAY**

**Wednesday, July 15th@ 6:30 pm**

Damage from Earthquakes  
 Seismology  
 Formation of Mountains

Final in Series

**Wednesday, Aug 19th at 6:30pm**

Organic Styles  
 Economic Geology of Coal  
 Economic Geology of Petroleum

**Happy Birthday**

Mary Lou  
 Deutsch 19th



**Happy Anniversary**

Gordon & Ginger Johnson  
 30th



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 OR TRADE**

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 Biggs Jasper  
 Deshutes Jasper  
 Mushroom Jasper  
 Monarch Jasper  
 Call Roger at:  
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 Or  
 928-757-1052



**In the News-Mohave County**



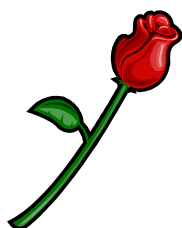
A man riding in a wash noticed the cut barbed wire ahead, assuming it was clear, continued riding through the wash. A stray piece of barbed wire sliced his throat and he was rushed to the hospital with life threatening injuries, Watch out there!

**July Birthstone**

**July Birthstone:**

**Ruby**

Birthstone Color: Red



Like a perfect red rose, the Ruby's rich color speaks of love and passion. Called the "Rajapur" or King of Gems by ancient Hindus, July's birthstone is among the most highly prized of gems throughout history. The Ruby was considered to have magical powers, and was worn by royalty as a talisman against evil. It was thought to grow darker when peril was imminent, and to return to its original color once danger was past—provided it was in the hands of its rightful owner!

Rubies were thought to represent heat and power. Ancient tribes used the gem as bullets for blowguns, and it was said that a pot of water would boil instantly if a Ruby was tossed into it. Ground to powder and placed on the tongue, this crystal was used as a cure for indigestion.

The word Ruby comes from the Latin "ruber," meaning red. It is a variety of the mineral Corundum, and is found as crystals within metamorphic rock. Corundum is the second hardest mineral, after Diamond. It comes in a variety of colors, and is considered a Sapphire in any color

except red, which is designated as a Ruby. Rubies range in hue from an orangey red to a purplish red, but the most prized gems are a true red in color. Large sized Rubies are very rare and valuable.

The history of Ruby mining dates back more than 2,500 years ago. The most beautiful crystals are thought to be from Burma, but quality Rubies are also found in India, Sri Lanka, Australia, Kenya, Tanzania, Afghanistan, Pakistan, and the United States.

It has been said that the Ruby's red glow comes from an internal flame that cannot be extinguished, making a gift of this stone symbolic of everlasting love. With its hardness and durability, it is a perfect engagement gem. And if worn on the left hand, ancient lore has it that the Ruby will bring good fortune to its wearer, too!



# July 2009

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4 
5	6	7 Board Meeting Library 5 PM	8	9	10	11
12	13	14 Regular Meeting	15 Library DVD Series 6:15 PM	16	17	18
19	20	21	22	23	24	25
26 Progressive Outing 9AM	27	28	29	30	31	

# August 2009

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4 Board Meeting Library 5 PM	5	6	7	8
9	10	11 Regular Meeting	12	13	14	15
16	17	18	19 Library DVD Series 6:15 PM	20	21	22
23/30	24/31	25	26	27 New Mexico 27-7	28	29



Little Gems

Mohave County Gemstoners

Editor

P O Box 3992

Kingman, AZ 86402



An organization dedicated to the social activities, education, sharing of information about  
and just plain fun of looking for special “gifts” of beauty abounding on our planet.



Have a safe and fun summer , find somewhere cool!