



Jacksonville Gem and Mineral Society, Inc.

Vol. 48 No. 11 Jacksonville Florida, November 2008

JGMS Website: <http://www.jaxgemandmineral.org/>

AFFILIATED WITH



WINNER- SFMS
Small Bulletin
1st Place 2001,
2006
2nd Place 1999,
2000, 2003

AFMS
Honorable
Mention 1999,
2001, 2003
4th Place 2006

Jacksonville Gem & Mineral Society

2008 Officers

President	Jason Hamilton	786-7605	jasons.designs@comcast.net
Vice President	Tom Frame	737-9867	tomframe@comcast.net
Secretary	Tina Jacobs	781-4443	jacobcb@bellsouth.net
Treasurer	Harriet Rose	509-3346	RosebiltInc@aol.com
Director (2008)	Earl Carlson	731-8180	
Director (2009)	Mickey Cecil	783-4602	helpcecilhelp@juno.com
Director (2010)	Cheryl Ashley	725-6198	ceashley@bellsouth.net

2008 Committee Chairpersons

Membership	Frank Hopkins	262-5458	aartworks@earthlink.net
	Amy Johnson	233-6394	kbear530@earthlink.net
Library	Lynn Hoffmann	923-9525	lynnhoffmann53@yahoo.com
Fair & Exhibits	Craig Hamilton	731-1287	chshell43@bellsouth.net
Club Show	Tom Frame	737-9867	tomframe@comcast.net
Building Committee	Harriet Rose	509-3346	RosebiltInc@aol.com
Social Concerns	Mary Lou Roberts	307-3368	
Field Trips	Mickey Cecil	725-6198	helpcecilhelp@juno.com
Publications	Chuck Sederholm	992-7162	chucksederholm@bellsouth.net
Programs	Cheryl Ashley	731-8180	ceashley@bellsouth.net
Federation Liaison	Jason Hamilton	786-7605	jasons.designs@comcast.net
Education	Jacki Jordan	(352)494-8501	jacki@everything-jewelry.com
Workshop	Doug Kryszak	924-3911	dougjax@yahoo.com
Refreshments	Karyn Bee	282-9275	webee7@aol.com
Scholarship Awards	Linn Dew	221-8477	linndew@aol.com
Canceled Stamps	Jacki Jordan	(352)494-8501	jacki@everything-jewelry.com
Youth Activities	Amy Ellis	710-3316	notthenice1@bellsouth.net
Web Master	Mickey Cecil	725-6198	helpcecilhelp@juno.com

Mailing address:	Meeting Place: First Thursday of every month
JGMS	Riverside Avenue Christian Church
6653 Powers Ave, Suite 132	2841 Riverside Avenue
Jacksonville, FL 32217	Jacksonville, FL 32205

Dues: \$20.00/yr Individual \$30.00/yr Family

Purpose: The purpose and objective of this corporation is to stimulate interest in rocks and minerals for furtherance of the activities of the members of this society in the earth sciences; to disseminate knowledge, methods and procedures for the collection, identification, cutting, polishing, setting and mounting of specimens for these activities: to promote good fellowship, proper ethics and conduct in the relationship of the members with each other and with the members of other Earth science societies in pursuit of these activities.

Officers and Committee Members of the Southeast Federation of Mineralogical Societies, Inc. or American Federation:

Jim Robinson SFMS Past President, Canceled Stamp Chairman, Past AFMS Regional Vice President, Past AFMS President
 Barbara Tuttle Mayo Education Foundation Past Director. Barbara, Director of Wild Acres 2005 SFMS Weeks
 Dianne Johnson SFMS Uniform Rules Committee Chair 2006, 2007, 2008
 Ed Johnson SFMS Bulletin Contest chair 2007, 2008

Bring canceled stamps to the meetings to support the Federation program providing scholarships to Federation workshops at William Holland in Young Harris, Georgia, or at Wild Acres in North Carolina. For every 100 stamps, your name goes into a drawing for a chance to win a scholarship.

Working at club function earns points toward a chance to win a scholarship to William Holland, Stewart and Shirley Roberts Award is for JGMS members with less than 2 years membership. The Bill and Maurine Meadows Award is for JGMS members with over 2 years membership.

JGMS Website <http://www.jaxgemandmineral.org/>

PRESIDENT'S MESSAGE



Welcome new members to the Jacksonville Gem and Mineral Society. At our November meeting you were exposed to our Annual Voice auction and a chance participation into the inner workings of club business where we unanimously passed the amendments to our Articles of Incorporation and By-laws in preparation for submission of the 501c3 to the state. During this month, I challenge you to spend time visiting and reviewing the JGMS Web site to better acquaint yourself with your new organization. If possible, go on a dig! See details in this news letter. Check out past news letters, upcoming events, digs and classes. I want to make you feel at home and eager to participate in the many activities. Above all, get to know your fellow members! Sharing and participating in activities is what builds a strong bond between members and the society and is the quickest way to get involved and find out how things work.

The annual voice auction raised an estimated \$1,500.00. I'm not sure if that's a record, but it sure was spectacular. A **HUGE THANK YOU** to everyone that donated the beautiful items that made this event a great success.

On behalf of the Fair and Exhibits Committee, another HUGE THANK YOU to the volunteers that made the fair event a great success. There were almost enough members to man the JGMS welcome table. Everyone that volunteered to sit and answer questions at the JGMS welcome table had great stories about the little kid that spend 30 minutes trying to decide what free tumbled rock they wanted or the couple that did a little gem mining while on vacation in the Carolinas. I personally enjoyed the time I got to spend with my fellow members talking about our society. There were some very nice displays entered by our members but participation was low. I hope in the coming year we can rally established and new members to become more involved in displaying in our show cases. I challenge each and everyone of you to find out more about entering a display and what it means to you as a club member.

There are several opportunities in the coming months where your volunteer efforts will be needed. The Annual Christmas party decorating committee headed up by Karyn Bee on Dec 6, 718-1528. January, annual work shop clean up day, contact Doug Kryszak 924-3911. February, annual work shop open house, contact Jason Hamilton 294-4744. March 28, annual Junior day, contact Amy Ellis 710-3316.

Last but not least are the upcoming elected offices for JGMS. It's not to late for you to volunteer to give back to an organization that does so much for you. If you have any hesitations, you shouldn't. With the restructuring efforts and the spreading out of jobs through out the society, it is easier then ever to take on a position. As president, I have been greatly satisfied serving you and hope to continue to do so for one more year. Any one interested in running for any of the elected positions as President, President-Elect, Vice President, Secretary or Treasurer should contact the Nominating Committee, Karyn Bee 718-1528 or Lynn Hoffmann 923-9525.

I hope to see you around this month either at the work shop or on one of the field trips. Arrive a little early before the next meeting (say 6 pm) to help set up for the meeting and get a better opportunity to know one another. Have fun and be safe.

Respectfully, Jason Hamilton

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MINUTES OF THE NOVEMBER 6th, 2008 MEETING

The monthly meeting of the Jacksonville Gem and Mineral Society was held at The Riverside Christian Church, 2811 Riverside Ave., Jacksonville, Florida on November 6th, 2008. President, Jason Hamilton, called the meeting to order at 7:35 pm. Josh Krovicka led us in the Pledge of Allegiance.

YOUTH ACTIVITIES: Jason directed the Juniors to their activity with Amy Ellis. The Juniors are having a fund raiser selling calendars.

TREASURER'S REPORT: Harriet Rose gave the treasurer's report and advised us that we had taken in over \$1000.00 in lab fees the preceding month.

SOCIAL: Karyn Bee announced that our annual Christmas Party will be held on Dec. 6th at 6:00pm at the Church. The main course, punch and set ups will be provided. Members are asked to bring a side dish and a wrapped gift whose value does not exceed \$25.00.

FIELD TRIPS: Mickey Cecil announced that there would be a field trip on Nov. 15th looking for multi colored chert. There will be a DMC trip to Jackson Crossroads on Dec. 6th. On Nov. 19th -21st, there will be a trip to Crabtree Emerald Mine and to Ruck's Pit at Fort Drum.

CLUB SHOW 2009: Tom Frame alerted us that we are in preparation of our September 2009 Show at the Moroccan Temple. We have decided to stay with the third weekend in September. Volunteers for preparation of the show are needed now. Tom also announced that we have agreed to host the SFMS Annual meeting the weekend of the show.

MEMBERSHIP: Frank Hopkins announced that after four years he and Amy Johnson would be retiring as membership chairs at the end of this year.

JACKSONVILLE FAIR: Craig Hamilton thanked everyone who had participated and volunteered to help with the Fair, and volunteers are still needed this weekend. Ed and Linda Price were thanked for judging. Three members of our club won a first, second and third prize in the special Jewelry contest. Melissa Siver took best in show for the junior category and Katie Raven took best in show for the adults. Craig reminisced over the many years of participation in the Fair. He also reminded us that 2009 will be our Club's 50th anniversary!

NEWSLETTER: Editor, Chuck Sederholm said that all was going well with the Newsletter and that Dana Brooks would take over the Mineral of the Month column.

EDUCATION: Jackie Jordan announced that we have new classes: Coin Piercing as well as a casting class.

OLD BUSINESS: Jim Robinson stated that as members of 501c.3, our club can make and take donations without paying taxes. Jim expressed his opinion that we should be charging more for our classes at the lab. Lynn Hoffman announced that we still have T-shirts for sale.

NEW BY LAWS: Jim Robinson asked for a vote on the By Laws which were published in the Newsletter last month. They were unanimously approved by the Membership. A motion was made to elect a delegate to SFMS on the 13th and 14th. Jim Robinson was elected unanimously.

The Meeting was adjourned for a voice auction. The auction took in \$1755.00

Respectfully submitted, Arden Sederholm for Tina Jacobs

SOCIAL CONCERNS

In Memory of Robert E. Erdlitz (1906-2008)

Robert E Erdlitz: 92, passed away on October 7, 2008. He is survived by his wife, Gwen, children Karl, Richard, Ann Gwyn, 4 grand children, and 5 great grand children. He was a long time member of the Jacksonville Gem and Mineral Society.

Bobby Brown: Had surgery – Is recovering nicely.

Alice Gundlach: She is being tested for sleep apnea.

Mary Lou Roberts: She is having tests for high blood pressure.

BIRTHDAYS

Phil Sinnett	11/3
Randy Snyder	11/7
Betty Kendall-Jones	11/8
Tina Jacobs	11/11
Caleb Sutherland	11/13
Jeanne Applegate	11/16
M. Denise Young	11/22
Karen Carter	11/24
Alex Taylor	11/30

Blain Zewdalem	11/4
Elanore Osburn	11/7
Jen Frantz	11/9
Leslie Urban	11/11
Roger Taylor	11/12
Cynthia Guthrie	11/19
Lynn Hoffmann	11/23
Gene Barton	11/28

The picnic was a blast – A great time was had by all!



MINERAL OF THE MONTH

TSAVORITE

Tsavorite or tsavolite is a variety of the garnet group species *grossular*, a calcium-aluminum garnet with the formula $\text{Ca}_3\text{Al}_2\text{Si}_3\text{O}_{12}$. Trace amounts of Vanadium or Chromium provide the green color. Green grossular had been rare until 1967, when British gem prospector and geologist, *Campbell R. Bridges* came across a deposit of the mineral in the mountains of north-east Tanzania. The specimens he found were of very intense color and high transparency. The find interested the gem trade, and attempts were made to export the stone, but the Tanzanian government did not provide permits.

Believing that the deposit was a part of a larger geological structure, extending possibly into Kenya, Bridges began prospecting in that nation. He was successful a second time in 1971 when he found the mineral variety there, and was granted a permit to mine the deposit. Until 1974, the mineral was only known to mineral specialists; in that year Tiffany and Company mounted a marketing campaign which brought broader reception of the stone.

The name Tsavorite was proposed by Tiffany and Company president, *Henry Platt* in honor of Tsavo National Park in Kenya. Apart from the source locality in Tanzania, it is also found in Toliara (Tulear) Province, Madagascar, but so far no other occurrences of gem material have been discovered.

Rare in clean gems over 1 carat in weight, tsavorite has been found in sizes yielding up to 15 carat stones

Chemical formula:	$\text{Ca}_3\text{Al}_2\text{Si}_3\text{O}_{12}$.	Color: light to deep green
Crystal structure:	cubic	Hardness: 7.0-7.5
Refractive index:	1.74	Optical properties: single refractive
Dispersion:	0.028	Specific gravity: 3.60-3.68

GOLD MAGIC

Can bacteria grow gold nuggets? Apparently they can according to some scientists. For decades scientists have wrestled with the puzzle of how placer gold—the flakes and nuggets that lie mixed with river sand in gold rich country like Northern California also can be formed in areas where only low-grade gold are is present. Now, in an unexpected discovery, they've found that bacteria form the nuggets!

According to the US Geological Survey research chemist John Watterson, the bacillus cereus actually crystallizes dissolved gold out of water surrounding itself with an 8 or 12 sided gold crystal layer.

Watterson and his colleagues, J.C. Antweiler and W.L. Campbell, wanted to know why certain, remote river beds in Alaska were rich with gold nuggets while all the land upstream consisted of a gold-poor rock called chert.

Some of the nuggets weighed as much as one ounce, while the rocks upstream contained gold only in milligram-sized flakes. Watterson told scientists at the recent international symposium on Environmental Biochemistry in Santa Fe, NM, that he took a weak solution of gold dissolved in water, added some bacillus cereus and waited 36 hours.

When he examined the tiny bacteria he found each one had coated itself with a thin layer of gold crystal. Some crystals already were 25 times the diameter of the original spore, which was still trapped inside. Once the crystal is formed in a solution, Watterson said, it continues to grow indefinitely, long after the original bacteria has died..

Watterson and his colleagues are sure these "bug-nuggets" formed in the river gravel rather than washing down from rich gold veins because the nuggets are almost perfectly undisturbed gold crystals. If the gold washed down from an upstream vein, they said, the soft metal would have a rounded, polished look. But gold flakes and nuggets found in placer deposits worldwide have flat, unscratched crystal faces..

"They must have been formed right there in the gravel," said Watterson. "Natural gold is very soft and registers abrasion if it is moved any distance. For years the miners have been saying the placer gold had to come from somewhere other than upstream."

"It's been a common observation that old placers reconstitute themselves. Take an old placer, mine it, wait 20 or 30 years, and a new bed of gold will have grown." Though he hasn't yet examined placer from California's Mother Lode, results from Alaska, Brazil and British Columbia all confirm Watterson's discovery. When a gold nugget of crystal is cut open, remnants of bacteria are found inside.

Because California has the rich, gold-bearing Mother Lode, Watterson speculated the placer gold in rivers here is a combination of bacterial crystallization and natural erosion. "I haven't looked at California gold," he said, "but I would be happy to study it if someone would send some to me."

Watterson said biology works in at least two ways before gold has to be dissolved in river water.

Many rocks contain trace amounts of gold, but an acid is usually required to leach it out. Nature provides that acid. Fungi and microorganisms living in the soil are known to produce acids that release soil minerals. Also humic acid is produced by decaying plant matter. It is even possible, that in the past few decades acid rain has contributed to the leaching process.

As gold-laden water cascades down rivers and streams, a number of bacteria use it in a never ending struggle against one another. "Gold," Watterson said, "is something of an antibiotic. If a bacteria can find a way to become tolerant to the metal, it may then accumulate the metal to use as a poison against other, non-tolerant bacteria it competes against."

Watterson speculates that bacillus cereus has learned to build its own "time-capsule." When covered with gold, the bacteria cannot germinate until something eventually dissolves away the gold. "That," according to Watterson, "could take a long, long time."

Could the bacillus cereus have evolved this mechanism to protect its species against drought, predation or disease? No firm scientific evidence exists to prove the point, but bacillus cereus is remarkably hardy. It is found in both the Arctic permafrost and in the tropical Amazon River basin.

"For a long time, gold was thought to be inert," Watterson said, "but it is extremely biologically active and has some interesting properties." He discovered some of gold's properties entirely by accident while measuring the "inhibition zones"-where bacterial will not grow around various metals.

"We were all set up to do these tests and a guy I was working with said, 'Want to use gold?'. We threw it in just for the heck of it and we noticed these high inhibition zones around the gold. Gold was acting like a bacterial contraceptive," he said. Watterson did the inhibition zone experiments on his own time, for the sheer joy of it. "It's just something I do for fun," he said

Fun or not, bacterial processes can be used to extract metals for profits too. About 20% of US copper is extracted using a bacterial process to absorb low grade ores.

"The Russians have set a fairly elaborate study group to look at microorganisms for mining gold," said Watterson. "But so far, we aren't that imaginative."

(CENTER FOR SCIENCE REPORTING by Brian Bashin. Reported by David Phillips via ROCK WRITINGS May 1994. Nevada County (CA) GMS, Donna Starr, Editor)

Murphy's Law for Rock Hounds

By Teresa Anderson

November 1994 Cobb-L-Stoned

The one rock you decide not to keep will always turn out to have been a rare gem. The one time you incorrectly identify a fossil will always be in the presence of the director of the local museum. You will always find the perfect specimen to complete your collection on the last day of the Gem Show – after you have spent all of your money. You will never be able to convince the judge that you were aiming at that mound of gravel when you accidentally hit your spouse with that pick ax. It never fails – on those really out of the way field trips, the more urgently you need to go to the bathroom, the further away the public facilities will be. On every rock trip where you say “I feel lucky today!”, you will go home with nothing more than a back ache and a rusty piece of tin in the shape of a snail. You will always pick the wrong place to dig while your fellow rock hound, digging six inches to your right, always hits the Mother Lode. You will never have enough space in your home for your collection. That mastodon bone you’ve spent four hours trying to dig out of Mother Earth will always turn out to be an old discarded tire. It will always be too late when you discover that the unused piece of driftwood you just found is actually a snake.

An Official Field Trip of Jacksonville Gem and Mineral Society

Saturday November 15, 2008

9:00 a.m. CST

Dothan, Alabama

JGMS has been invited to join Herb Whittington and the Dothan club on a field trip to Dothan, Alabama to collect multi-colored chert and chert fossils in a quarry used for the Dothan landfill.

What: Multi-colored chert, druzy quartz and chert fossils

Meet: Meet at 9:00am CST (Dothan time), which is of course 10:00 A.M. EST. At exactly 9:00 am, we will leave our meeting location and head to the dig site. If anyone should be late, they need to call us on our cell phone (334) 803-4607, so we can give them directions to the dig site, which is approximately two miles from the meeting location. We will meet at the McDonald's which is caddy-cornered from the Southeast Alabama Medical Center located at the intersection of highway 84 EAST and Ross Clark Circle...about 12 miles from the Georgia State line.

Fee: There is no charge for the material.

Wear: It is best to wear long jeans as the chert and jasper material is very sharp when broken off in flakes. A good idea from a safety standpoint is to wear some eye protection. I wear a little welder's face shield which is clear plastic attached to a headband.

Tools: Some of the boulders are as big as cars; others are the size of a basketball. You will only need to bring a sledgehammer, a rock hammer and buckets. Bring a pry bar if you have one. Hope to see you.

Bring: It is always a good idea to bring a change of clothes, food and water and some first aid supplies.

Directions: Take I-10 approximately 232 miles to exit #130 which is US Highway 231 N (west of Marianna). Take US 231 N Dothan (bypass), go east to the intersection of Ross Clark Circle (US 231 Bypass) and US 84. Meet at the MacDonald's restaurant. Plan for 4.5 to 5 hours of driving time.

Herb Whittington
Cell phone (334) 803-4607

Jax Gem & Mineral Society Class Schedule

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DECEMBER 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 6-9 Open Silver Hamilton	2 6-9 Open Silver Hamilton	3 6-9 Open Silver Hamilton	4 Club Meeting 7:30	5	6 10-1 Setup for Christmas Party 6-9 Annual Christmas Party
7	8 6-9 Silver Project Bracelet Hamilton	9 6-9 Silver Project Bracelet Hamilton	10 6-9 Silver Project Bracelet Hamilton	11 6:30-9:30PM Bead Embelishment Ashley	12	13
14	15	16	17	18 7:30-9:30 Board Meeting	19	20 9:30-2:30 Beadmaking Sederholm
21	22	23	24	25 Christmas	26	27
28	29	30	31	1 New Year Day	2	3

<u>TEACHERS' PHONE NUMBERS</u>					
Applegate	519-6769	Ashley	731-8180	Bailey	346-0083
Brown	389-5378	Ellis	710-3316	Jordan	352-494-8501
Frame	737-9867	Hamilton	294-4744	Hopkins	262-5458
Mattison	388-0409	Robinson	221-5038	Sederholm	992-7162

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Sun	Mon	Tue	Wed	Thu	Fri	Sat Nov 1
2	3	4	5	6 Club Meeting Annual Voice Auction 7:30	7	8
9	10 6-9 Project Necklace Hamilton	11 6-9 Project Necklace Hamilton	12 6-9 Project Necklace Hamilton	13 6:30-9:30PM Bead Embellishment Ashley	14	15
16	17 6:30 - 9:30PM Robinson	18 6:30 - 9:30PM Robinson	19 6:30 - 9:30PM Robinson	20 7:30-9:30 Board Meeting	21	22 9:30-2:30 Beadmaking Sederholm
23	24 6:30 - 9:30PM Robinson	25 6:30 - 9:30PM Robinson	26 6:30 - 9:30PM Robinson 6:30-8 Casting Hopkins	27 Thanksgiving	28 6:30-8 Casting Hopkins	29 10-4 Casting Hopkins
30 2-4 Casting Hopkins 2:30-5:00 Gem ID Jordan	Dec 1	2	3	4 CLUB MEETING 7:30	5	6 Annual Christmas Party from 6-9

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