

The Lake George Gem and Mineral Club - *Club News*, January, 2010



Regular Meeting of the Lake George Gem & Mineral Club Saturday, January 9, 10:00AM Lake George Community Center

Mike Nelson Will Present a Program Titled "AGATES"

Agates, and the other varieties of microcrystalline quartz, are among the most collected of the semi-precious gems. Specimens are common in all classes of rocks, and many may be collected in stream banks and other alluvial deposits. Although common in the record, several varieties are worth thousands of dollars in the retail market.

Help the Club Treasury: **bring your duplicates for the Silent Auction!**

Coming Events

- Western Interior Paleontological Society talk: "Paleontological and geochronological evidence for the timing and warmth of the last interglacial period: implications for a future warmer Earth", by Dan Muhs, free, 7PM, Ricketson Auditorium, Denver Museum of Nature and Science ... Jan. 4
- Monthly meeting, Columbine Gem & Mineral Society, "Show and Tell; 6:30PM, Shavano Manor, 525 W. 16th (at J St.), Salida ... Jan. 8
- Monthly meeting, Denver Gem & Mineral Guild; "Black Smoke & White Iron—a History of Colorado Kilns, Ovens, Furnaces, and Rails", by William Reich, 7:30PM, Berthoud Hall, Rm. 109, Colo. School of Mines, Golden ... Jan. 8
- Free GPS Map and Compass Class, USGS, Building 10, Federal Center, Lakewood; 9AM to 4PM; call 302-202-4689 for information and reservation. ... Jan. 8
- Northwest Colorado Gem & Mineral Show, Steamboat Springs Sheraton, 2200 Village Inn Court, Steamboat Springs ... Jan. 16-17
- Tucson Gem, Mineral, & Fossil Showcase (various venues) ... Jan. 30-Feb. 14
- Tucson Gem and Mineral Show (Tucson Convention Center) ... Feb. 11-14
- Desert Gardens International Gem & Mineral Show; free; Desert Gardens RV Park, Quartzsite, AZ; info@desertgardensrvpark.net ... Feb. 1-28

<u>Denver Gem & Mineral Guild Show</u> , Jefferson County Fairgrounds, 15200 W. 6 th Avenue, Golden, info: Beth Simmons, cloverknoll@comcast.net	... Feb. 26-28
<u>International Gem & Jewelry Show</u> , Denver Merchandise Mart, \$7 admission	... March 6-8
<u>Fort Collins Rockhounds 48th Annual Mineral Show</u> , Lincoln Center, 419 W. Magnolia St., Ft. Collins; \$3 adult admission; contact Dave Halliburton 970-493-6168 for info.	... March 27-29
<u>Flatirons Mineral Club Silent Auction</u> , West Boulder Senior Center, 909 Arapahoe Ave., Boulder, 7PM, all welcome	... April 8
<u>Colorado School of Mines Museum Garage Sale</u> , 1310 Maple St., Golden; 9AM-4PM	... April 18
<u>Colorado Mineral & Fossil Show</u> , Denver Central Holiday Inn, 4849 Bannock St. (I-25 and I-70), Denver; free admission and parking	... Apr. 23-25
<u>Wichita Gem & Mineral Society 57th Annual Show</u> , "Tri-State Treasures", in conjunction with the <u>Rocky Mountain Federation of Mineralogical Societies Annual Convention</u>	... Apr. 23-25

Club News

❄️❄️ Because the Lake George Community Center's "facilities" were frozen up, we had our **December meeting** at the Florissant Fire Department's excellent facilities. Many thanks to them for their hospitality—the room was already decorated for the holidays. President **John Rakowski** reported that **Pat Lewis** told him that we can use the Lake George Charter School if we need get stranded again.

❄️❄️ At that meeting, about 22 members welcomed guests **Tim and Jane Nichol**, visiting from the U.K. Member **Mike Nelson** showed off a Cretaceous fish fossil from the Niobrara Limestone, near Gove, KS. Several other members brought "show and tell" items, including:

- **Jo Beckwith**, who had some very interesting petrified wood from South Park
- **Marge Breth**, who had quite an assortment of items, including Cretaceous fossils from Monument Creek, aquamarine from Mt. Antero, and "unakite" (granite with epidote) from an uncertain location
- **John Rakowski**, who had a nice topaz crystal from the Taryalls and amazonite/smoky quartz/albite from one of **Joe Dorris's** claims near Crystal Peak
- **Dan Alfrey**, who brought a half dozen topaz crystals found last summer
- **Bob Carnein**, who brought a collection of postcards from the Cripple Creek district

❄️❄️ **Bob Carnein** reported that, although the temperature in Florissant was -13°F on Dec. 8, four Pebble Pups showed up for his talk about physical properties of minerals. More news can be found in the "Pebble Pups Corner", later in this newsletter.

❄️❄️ President **John Rakowski** reported that we may have to abandon the Jump-Start at this year's Gem and Mineral Show because faithful members **Roger & Dee Loest** will not be able to be on-site 24/7 in 2010, as they have been at recent shows. We could

use a volunteer to take their place. This requires camping at the show site, which has no hookups. **Loren Lowe** thanked **John** and the other Club workers for making the 2009 show such a success but, alas, didn't volunteer to man the Jump-Start☺.

✿✿**John Rakowski** also talked briefly about the Colorado Federation of Gem and Mineral Societies, which met at the Colorado Springs show in early December. The Federation's goals are to promote coöperation among Colorado's gem and mineral clubs. Among other things, they plan to have a newsletter-editors' workshop at the Denver show in September, and will share information about programs and sponsor joint field trips. **Mike Nelson** suggested that the Federation might also act as a storehouse and distribution center for information about rules and regulations for collecting on Federal or State land. The next Federation meeting will be Feb. 27-28 at the Denver Gem & Mineral Guild's show. Speaking of which, the Denver Council of Gem and Mineral Clubs has some lighted, fold-up display cases for sale at \$50 each. The LGGMC approved buying 2 cases for Club use.

✿✿**John Rakowski** then reminded members that the deadline for applications for our annual \$500 Earth-science scholarship is March 1.

✿✿**Steve Veatch** noted that there will be a new-members' orientation at the Western Museum of Mining and Industry for our members and those of the Colorado Springs club in late April or early May. He wants to have a very focused 4- to 6-hour program that will be designed to help people like **Maury Hammond**, who generally can't seem to find anything!??



Steve then presented the "short version" of the Victor Study Project program on Victor. Among other things, he mentioned that the 2-hour version of this program will be used at Victor Gold Rush Days to raise funds to support the Victor Museum. He acknowledged help from many sources, including financial support from **Marge Breth**. Nearly 300 people saw the program at the New Mexico Mineral Symposium in November. Among other things, Steve described the following:

- the haunted bird-cage elevator in the Victor Hotel
- the fire that destroyed Victor in 5 hours on August 21, 1899
- signs on old Victor buildings, some of which were painted by JW Stonehouse, who later manufactured mine-safety signs in Denver
- an outline of the geology of the district
- miners and mines of the Victor area
- sources of photographs used in the presentation; and
- minerals of the district, including recent finds at the Cresson open pit.

At the end, Steve presented certificates and copies of the 2009 NMMS abstracts to all key contributors who helped out with the Victor Study club project.

Dan Alfrey, Victor Study co-chair, noted that, in our second year & with nearly three times the participants the project came together so quickly we were able to present in July at the Victor Gold Rush Days instead of September at the Denver Gem & Mineral Show. Next year's group project will focus on the Alma area.

❄️❄️ Best wishes to our Secretary, **Marge Breth**, who is recuperating from surgery just before Christmas.

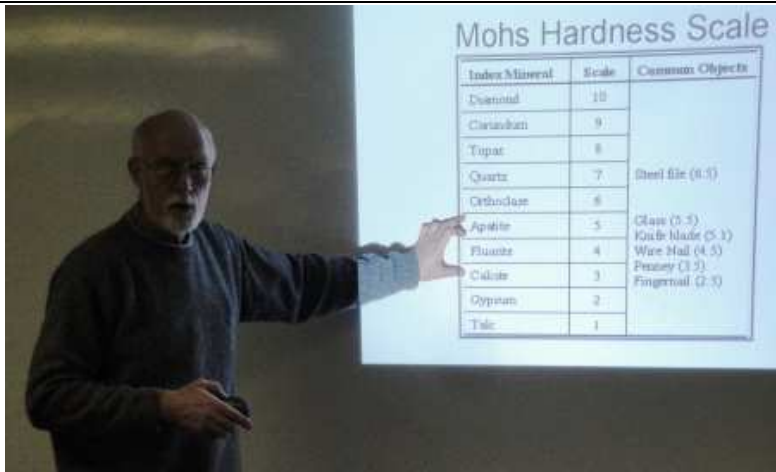
❄️❄️ Dan Alfrey sent the following photo and appreciation for **Dave Wilson**, well-known Colorado Springs faceter and collector, who passed away unexpectedly in December:

"A toast to Dave. Friend. Colleague. Man of generosity. Genius at gem cutting. God be with his family/friends, amen." -*Danny*



Pebble Pups Corner

Another successful Pebble Pups meeting occurred on December 8, despite the coldest weather of the year, with wind-chills in the -20°F range. **Bob Carnein** gave a presentation on basic tools and techniques used to identify common minerals, using several dozen specimens from his own collection to illustrate such properties as luster, cleavage, streak, and crystal habit. He then presented each of the 4 students present with a set of 9 minerals of the Mohs hardness scale (diamond was not included) and asked each student to use the principles learned tonight to identify and label their minerals. The minerals will be checked at the January 12 session, at which time the topic will be common ore minerals. The samples were provided by Bob and **John Rakowski**, with a few bought from Ward's Natural Science Establishment.



Photos thanks to Dan Alfrey

Because of problems with scheduling Pebble Pups get-togethers, Club members have had an ongoing discussion about finding a new meeting time. **Richard Mammenga** reported that Boy Scouts meet at 5PM on the same night as Pebble Pups and that our ending time, which is about 8:15 to 8:30PM, is past the bed-time of his grandson **Auston**. He also thought that we may be losing the Boy Scouts because our meeting is later the same night. We have looked into meeting on a Saturday morning, but the Lake George Community Center isn't available. **Dan Alfrey** has suggested that we explore the possibility of meeting at the Woodland Park Library.

Once again, the Pebble Pups group encourages any members who want to "sit in" to come to the meetings on the second Tuesday of the month, at 7:30PM. We are still looking for specimens to give to the kids at the meetings, so go through that pile of rocks in your garage and see what you can spare. Remember, we're looking for 8 to 10 samples of each.

NOTES FROM THE EDITOR

Bob Carnein, Editor
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Have you seen mammoth hair at shows and wondered whether it's really from somebody's yak or alpaca? This month, it's a pleasure to include an article on recent research at Penn State on mammoth hair, written by our faithful member, **Steve Veatch**. Enjoy!!

Exploring Earth Science at the Frontiers of Discovery: A Lock of Ice Age Hair Aids Scientists in Solving a Mammoth Mystery

By Steven Wade Veatch

Unlike dinosaurs, mammoths once coexisted with man. During the Pleistocene Epoch, man hunted these prehistoric animals using deadly spear points. Prehistoric people also carved figurines from their tusks and left amazing images of these creatures on the walls of caves. The Chauvet Cave in southern France is a masterwork of mammoths and other Ice Age animal art.

Mammoths are extinct. The cause of their extinction is passionately debated by paleontologists. They may have been hunted to extinction; killed off by climate change; destroyed by the impact of an extraterrestrial object 13,000 years ago; or eliminated by some other cause. Mammoths did leave remains, mostly in the frozen ground of northern Canada and Russia. These remains provide clues to their disappearance and to other unanswered questions.

Today, scientists study mammoth DNA extracted from fossil hair (Figure 1). When scientists extract DNA from mammoth bone, it is frequently contaminated with the products of decomposition (including fungi and bacteria). Mammoth hair, enclosed in keratin (the hard part of hair), is a purer source of preserved genetic material. Keratin can be thought of as a kind of biological container that protects DNA and allows hair specimens to be easily cleaned of bacteria and other contaminants. Hair shafts are enriched in mitochondrial DNA, the type of DNA that scientists use to measure the genetic diversity of woolly mammoths.

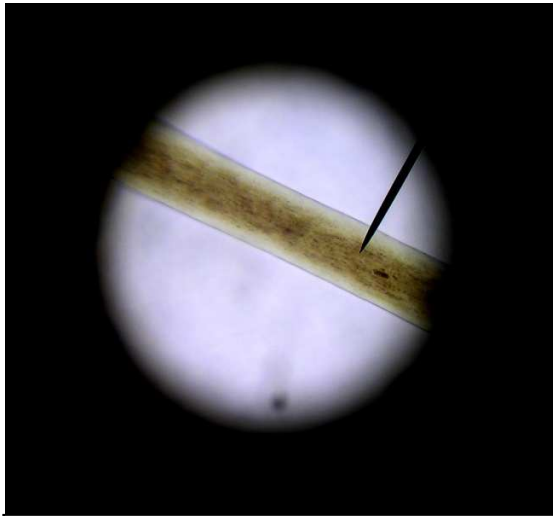


Figure 1. A microphotograph shows the structure of a strand of mammoth hair. Mammoth hair is enclosed in keratin, the hard part of hair. Keratin keeps the DNA in the hair free from contamination. Field of view is 4 mm. S. Veatch specimen, S. Veatch photograph.

Researchers at Pennsylvania State University recently extracted DNA from mammoth hair recovered from the icy permafrost of Siberia. These scientists reconstructed most of the genetic sequence of these prehistoric animals, using next generation DNA sequencing equipment.

Sequencing the DNA uncovers a message from the past that provides insights into the genetic makeup of mammoths before they became extinct. It also helps researchers to understand the relationship between different groups of animals, and sheds more light on the evolution of species.

The genetic study at Penn State was significant in that it revealed: 1) woolly mammoths were not one large homogenous group; and 2) did not have much genetic diversity. Locks of Ice Age mammoth hair

have aided scientists in solving a mammoth mystery—the nature of their extinction. According to Stephan C. Schuster from Penn State University, a leader of the research team, "The population was split into two groups, then one of the groups died out 45,000 years ago, long before the first humans began to appear in the region. This discovery is particularly interesting because it rules out human hunting as a contributing factor, leaving climate change and disease as the most probable causes of extinction."

Because of a warming climate, the permafrost in northern Canada and northern Russia is melting, releasing more specimens from the Ice Age to study. With rapidly receding ice, large amounts of mammoth hair—even hair from an extinct woolly rhino—are becoming available for study. In 2007, this melting world revealed an incredibly well-preserved baby mammoth that was named "Lyuba" by researchers. These new Ice Age fossils and cutting edge scientific techniques are bringing researchers to the frontiers of discovery as they begin to unlock secrets that were once held in the ice.

References:

BBC News (2007, September 27). Mammoth Hair Produces DNA Bounty. Retrieved December 27, 2009 from <http://news.bbc.co.uk/2/hi/science/nature/7016160.stm>

Brown, D. (2008, November 20). Scientists Partially Reconstruct Genome of Extinct Mammoth. *The Washington Post*. Retrieved December 27, 2009 from <http://www.washingtonpost.com/wp-dyn/content/article/2008/11/19/AR2008111902662.html>

Penn State University (2008, June 12). Woolly Mammoth Gene Study Changes Extinction Theory. *Science Daily*. Retrieved December 21, 2009 from <http://www.sciencedaily.com/releases/2008/06/080611161038.htm>

Penn State University (2008, November 20). Woolly-mammoth Genome Sequenced. *Science Daily*. Retrieved December 21, 2009, from <http://www.sciencedaily.com/releases/2008/11/081119140712.htm>

Than, K. (2007, September 27). Woolly Mammoth Hair Yields Fantastic DNA. *MSNBC Technology and Science*. Retrieved December 27, 2009 from <http://www.msnbc.msn.com/id/21015458/>

Another faithful member, **Dick Lackmond**, sent the following biography. I hope others will follow his example!

Brief history of Dick Lackmond

Born in Birmingham Ala., I spent my childhood exploring the wonders of sport--football, track, baseball, etc.

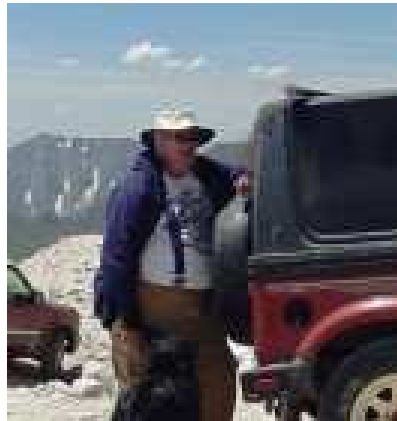
My parents loved to travel and took me to several places across the US to see and learn about our great country. Places like the Smoky Mountains and Glacier Park, the rocky coast of Maine, caves of Kentucky, bayous of the south and many more. As you know, all of these have rocks, and I brought thousands home, to my dad's chagrin. Then my interest changed to sports-car racing, and finally I got into the world of Diagnostic Ultrasound. This led to my becoming the International Marketing Manager for one of the world's leaders in development and selling of ultrasound equipment.

Eventually, I semi-retired to Colorado Springs, and, in taking various sales jobs, I acquired a Suzuki Samurai to use because the gas mileage was so good. Of course, this led to finding out what 4 wheeling was about, and that led back to rocks. So about 5 years ago, I surveyed the state rock clubs and joined the Salida group because they had more field trips than anyone else. Eventually, I was conscripted to be the club president. I then started to join all the clubs I could to enhance my learning experience and gratefully found the Lake George group about 2 years ago, thanks to the rock show . So I now just go and read and dig and join online rock clubs and blogs. I just love rocks!

Note yard rocks in the foreground



Lake George Gem and Mineral Club



January, 2010

DUES ARE DUE!

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Lake George Gem and Mineral Club

Box 171

Lake George, Colorado 80827

2010 MEMBERSHIP APPLICATION

Name(s) _____

Address _____ City _____ State ____ Zip _____

Telephone () _____ - _____ E-mail _____

Names and ages of dependent members: _____

Annual membership - dues Jan. 1 through Dec. 31 are as follows:

- Individual (18 and over) \$15.00
- Family (Parents plus dependents under age 18) \$25.00

Annual dues are due on or before March 31. Members with unpaid dues will be dropped from the roster after this date. **Anyone joining after August 30 shall pay one half the annual dues.**

I hereby agree to abide by the constitution and by-laws of this club.

Signed _____ Date: ____/____/____

I have previously been a member of Lake George Gem & Mineral Club. Yes ___ No ___

My interest areas include:

Minerals ___ Fossils___ Lapidary ___ Micromounts ___
Other _____

I would be willing to demonstrate any of the above for a club program or educational activity? If yes, which: _____

Please indicate which of the following activities you might be willing to help with:

Writing _____ Editor _____ Mailing _____ Local shows _____

Club Officer _____ Programs _____ Field trips _____ Refreshments _____

Questions about the club or club activities? **Contact John Rakowski (719) 748-3861**

www.LGGMclub.org

Lake George Gem and Mineral Club

January, 2010

Lake George Gem and Mineral Club

P.O. Box 171
Lake George, CO 80827

The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography and history of the Pikes Peak/South Park area, Indian artifacts and the great outdoors. The club's informational programs and field trips provide an opportunity to learn about earth sciences, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The club meets the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter we meet at 10:00 AM. From April through September, we meet at 9:00 AM, to allow more time for our field trips.**

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (Parents plus dependents under age 18).

Our Officers for 2009 are:

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January, 2010