

The Lake George Gem and Mineral Club -

Club News

April, 2018



Program for the month: **Saturday April 14, 2018, 9:00AM.** Vice President John Rakowski will talk about:

“Rockhounding 101: the geology, the minerals, the equipment, the technique.”

Basics and a good review of how to recognize the formations, the minerals, and how to extract them.

Note time change; from April through October, we meet at 9AM.

We will also continue a **silent auction for some cool specimens** and other items donated by Club members. The specimens will be displayed at the back/side of the room with “bid sheets”. Each item will have a minimum starting bid. You write your bid and initials in a blank space on the sheet and then watch to see if others outbid you. You can keep on bidding until the President says bidding is closed. So, bring some CASH and be prepared for the fun!

We are still looking for a place to set up our club’s lapidary equipment, which is now in storage. If you know of a place that has water, electricity (including 220V), and heat, please contact one of the club officers.

✓ ✓ Here’s a message President, **Robert Baker**: **GEMS FROM THE PRESIDENT**

As we begin our field collecting season let us remember the **Code of Ethics** we agreed to in our membership application. Be courteous to the host, the field trip leader, and to each other. Leave your site in a condition at least as good as you found it. Thank your host and field trip leaders.

Hopefully you have learned something new and had a good time.

Keep looking forward, there may be a gem right in front of you.

Upcoming talks include:

May- **Paul Combs**, The Bone Wars: Were Professors Marsh and Cope respected paleontologists out to study Colorado dinosaur fossils, or is this story much more dramatic with gun violence, theft and bribery?

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June- **Bob Carnein**, Mineral Association: What minerals are commonly found together? Would you expect to find garnets with amazonite? How about amazonite with baryte? Knowing the reasons why can help you to hone your mineral identification skills.

July- **Loren Lowe**, Gold Panning in the Pikes Peak Region: "There's **GOLD** in them thar hills." But where? And how do you get it?

Coming Events

✓ ✓ Several mineral, fossil, and geology clubs meet relatively nearby and encourage visitors. These include:

>**Cañon City Geology Club**, meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City;

>**Colorado Springs Mineralogical Society**, meets on the 3rd Thursday of each month at 7PM in the Mt. Carmel Veteran's Service Center, 530 Communication Circle, Colorado Springs;

>**Columbine Gem & Mineral Society**, meets on the 2nd Thursday of each month, 6:30PM in the meeting room, Mt. Shavano Manor, 525 W. 16th (at J St.), Salida;

>**Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

✓ ✓ **Pete Modreski** and others suggest **following upcoming events**:

Apr. 3, 10:30 a.m., USGS Rocky Mountain Science Seminar, Building 25 Lecture Hall, Denver Federal Center, "Three ways to evaluate how well we know the carbon cycle", by Mary Whelan, Carnegie Inst./Stanford Univ.

Apr. 4, 4:00 p.m., CU Geological Science Colloquium, Emplacement and exhumation of a Laramide subduction complex in western Arizona, John Singleton, CSU. Benson Earth Sciences Building Auditorium 180; social hour with refreshments follows in Benson 185. All are welcome.

Apr. 5, 4:00 p.m., Van Tuyl lecture at Colorado School of Mines, Precambrian Layered Mafic Intrusions (?) of the Zimbabwean Craton: Their Economic Importance and Origin, by Jeff Chaumba, University of North Carolina at Pembroke. Berthoud Hall Room 241; all are welcome.

April 6-8: Ft. Collins Rockhounds Gem & Mineral Show, Larimer Co. Fairgrounds, 5280 Arena Circle, Loveland.

Apr. 12, 4:00 p.m., Van Tuyl lecture at Colorado School of Mines, Alpine Hydrogeology: The Critical Role of Groundwater in Sourcing the Headwaters of the World, by Masaki Hayashi, Univ. of Calgary. Berthoud Hall Room 241; all are welcome.

Apr. 12, Colorado Scientific Society's annual Past Presidents' Dinner, to be held at Mt. Vernon Country Club, featuring a presentation on Colorado's Exciting New Dinosaurs by Dr. Joe Sertich, Denver Museum of Nature and Science. Details will be announced.

Apr. 13, 4:00 p.m., CU Geological Science Colloquium, Masaki Hayashi, Darcy Distinguished Lecture, Univ. of Calgary (title TBA). Benson Earth Sciences Building Auditorium 180; social hour with refreshments follows in Benson 185. All are welcome.

Apr. 13, North Jeffco Gem & Mineral Club Silent Auction, APEX Community Recreation Center, 6842 Wadsworth Blvd., Arvada. Auction begins at 6:45 p.m.; all are welcome. For more information call Bill Jones at 303-503-6288 or email at sidewindermin@comcast.net.

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Apr. 13-15, Colorado Mineral & Fossil Spring Show, Crowne Plaza Hotel DIA, 15500 E 40th Ave., Denver CO. Free admission; hours 9-6 Fri. & Sat., 10-5 Sun.

Apr. 14, Denver 2018 March for Science; see <http://marchforsciencedenver.org/> .

Apr.15, a Colorado Scientific Society Spring Field Trip: "Mysterious Front Range Gravels", led by Cal Ruleman & Bob Raynolds. Details TBA.

Apr. 17, 10:30 a.m., USGS Rocky Mountain Science Seminar, Building 25 Lecture Hall, Denver Federal Center, "Emplacement and exhumation of a Laramide subduction complex in western Arizona", by John Singleton, CSU.

Apr. 22, Earth Day Geology Hike, in Red Rocks Park (1 p.m.) with optional (12 noon) shared potluck lunch at the Discovery Center at Dinosaur Ridge. Meet at the Discovery Center, 17681 W. Alameda Parkway. At about 1 p.m. we'll drive to the Geologic Marker and hike the new Geologic Overlook Trail—a short, 3000' (3/5 mile) round trip, 240' elevation gain. We'll also demonstrate use of the "ROCKD" geologic map app. This will be a joint "general public" + Florissant Scientific Society event; all interested persons are invited. Contact Pete Modreski, pmodreski@aol.com, or call 720-205-2553.

Apr. 25-26, Robert Hazen, of the Carnegie Institution of Washington, will give several talks at Colorado School of Mines on the theme of Mineral Evolution, Mineral Ecology, and "Big Data". Details will be announced

April 29-30: Please mark your calendars! On behalf of the Friends of the Colorado School of Mines Geology Museum, you are cordially invited to visit the upcoming Geology Museum "garage/book sale" on Saturday, April 28, (Friends members only sale 9:00 am to noon; Public sale goes from noon to 4:00 pm.) and Sunday, April 29, 9:00 am to 4:00 pm.

The sale will have a large selection of rocks and minerals (some recently deaccessioned from the Museum's collections), books, maps, journals, fossils, etc.. The sale will be held in the large conference room across the hall from the Museum's main entrance (General Research Lab (GRL) building, [1310 Maple Street, Golden, Colorado](#)). Prices will vary by item or flat and most prices will be decreased throughout the event. For more information, please see the attached flyer or call [303.273.3815](tel:303.273.3815).

May 3, 7:00 p.m., First Thursday lecture series of the Friends of the Colorado School of Mines Geology Museum, The Colorado-Wyoming State Line Kimberlite District, by Philip Persson. All are welcome. Expected location: Ben H. Parker Student Center, Ballroom "E", Maple Street, Golden

May 5, 11 a.m. – 2:45 p.m., Colorado Mineral Society Silent Auction, Holy Shepherd Lutheran Church, 920 Kipling St. (3 blocks north of West 6th Ave.) Lakewood

May 10, 7:30 p.m., Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakewood Event Center, 7864 W. Jewell Ave.: Speaker Markus Raschke on "Five Days on Xuebaoding Mountain, Sichuan Province, China: minerals and geology", by Markus Raschke.

June 1-3: Pikes Peak Gem & Mineral Show, Norris Penrose Event Center, 1045 Lower Gold Camp Rd., Colorado Springs.

June 7-10: Fairplay Gem, Mineral, and Jewelry Show, Platte Drive, Fairplay, CO.

June 15-17: Victor Gem and Mineral Show, downtown Victor, CO.

August 9-13, 2018: Contin-Tail outdoor show, Buena Vista Rodeo Grounds.

August 17-19: 19th Annual Lake George Gem & Mineral Club gem and mineral show. Details to come!

✓ ✓ **Dan Alfrey** sent this important notice for visitors to the Club claim:

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I wish to politely remind members of the 'REPORTING' portion of our Club-Claim Guidelines that is 'REQUIRED' (every time), and clarify that it is for '**AFTER**' your visit.

- it is okay if we are notified prior to your planned visit. **But, that does NOT satisfy the Requirement at all.**
- it is also okay if we are **not** notified prior to your visit!:)

✓ it is **Mandatory to Report the following After your visit**:

- **Who** visited;
- the **Date of the visit**;
- Approx. number of **Hours** spent at the claim.

✓ ✓ Here's an article from **Steve Veatch** about a Pikes Peak Pebble Pup:

Pebble Pup Wins First Place at the Pikes Peak Regional Science Fair

Jenna Salvat, a member of the Colorado Springs Mineralogical Society and the Pikes Peak Pebble Pups won many awards at the Pikes Peak Regional Science Fair held February 24th at the University of Colorado at Colorado Springs. The Awards Presentation was held on Tuesday, February 27th in the R.F. Celeste Theatre in the Cornerstone Arts Center on the campus of Colorado College. Jenna won the following awards:

- 1st Place Senior Division Physical Science
- Grand Award Runner-Up Winner (This means that she almost won the entire fair)
- Northrop Grumman Excellence in Science and Engineering Award
- 2018 Naval Science Award for Senior Division Projects
- The UCCS Department of Chemistry and Biochemistry Award
- Rocky Mountain AFCEA Chapter 3rd Place Award
- American Association of University Women Award
- Society for Women Engineers Award
- United States Air Force Certificate of Achievement

Jenna also won first place in Rocks and Minerals at the Science Olympiad competition held earlier this month. Jenna has been a pebble pup since 5th grade. Jenna is in 11th grade at Coronado High School. She plans a career in the geosciences.

✓ ✓ Here's a report from photographer par excellence **Frank Rosenberg** about our March meeting:

At our standing room only 2018 March meeting, Steven Veatch and Pikes Peak Earth-Science Scholar, Ben Elick, gave an interesting and informative presentation on Cripple Creek High Grading: The untold Stories.



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March speakers Steven Veatch and Ben Elick (Frank Rosenberg photos)



Our enthusiastic field-trip coordinator, Billy Bell; Bob Carnein talking about museum internships. (F.R. photos)

✓ ✓ Field-trip coordinator **Billy Bell** is working on a great schedule of trips for this spring and summer. So far:

2018 Field Trips	Location/Looking For?	Difficulty	Trip Leaders
April 18 - Wed	Arroya Gulch - Garnets	Easy	Billy B
April 21 - Sat	Baculite Mesa - Fossils	Easy/Med	Bob B
April 28 - Sat	Harvey Blue Barite Mine	Easy	Linda W
May 2 - Wed	Baculite Mesa - Fossils	Easy/Med	Billy B
May 12 - Sat	Patience/Piety - Smky Qtz/Flourite	Easy	John S
May 16 - Wed	Shelf Road	Easy	Paul
May 23 - Wed	Harvey Blue Barite Mine	Easy	Linda W
May 26 - Sat	Bob Carnein Florissant Fossil Beds Tour/Fossil Quarry Dig (\$17.00)	Easy	Bob C
June 6 - Wed	Badger Flats - Magnetite/Fluorite/Barite/Malachite	Easy/Med	Linda W
June 9 - Sat	Smoky Hawk Claim - Amazonite/Smky Qtz (Dorris Claim)	Med/Hard	Linda W
June 16 - Sat	Blue Moon - Smoky Quartz/Amazonite - (Karen Vogl claim)	???	Linda W
June 20 - Wed	Trinidad Lake State Park - \$7.00 Entrance Fee - (K-T Boundary)	Easy	Bob B

✓ ✓ **Wayne Orlovsky** sent some more interesting links:

****Darren Aronofsky, Will Smith, and experienced astronauts join forces to tell the extraordinary story of why life as we know it exists on Earth. Premieres March 26 on the National Geographic Channel.**

http://channel.nationalgeographic.com/one-strange-rock/?code=EMEDITHOL17?utm_source=NatGeocom&utm_medium=Email&utm_content=WatchThis_20180323&utm_campaign=Ngdotcom&utm_rd=17167166

****Imagine you're a paleontologist in the late 1800s and find a huge coil of hardened sand stuck deep in the earth. Curious what caused these giant corkscrews? Learn more with PBS Digital Studios and [Eons • PBS](#).**

<https://www.facebook.com/pbs/videos/551206158588139/>

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Great trace fossils and a nice presentation

**Can not remember if I have already sent this out but it is comprehensive and worth a second look. If you haven't seen this - well worth it. Carol and Jim Sharp, our neighbors in Colorado, have a son-in-law who owns a company located in Austin who did computer visualization work on the core.

<http://www.pbs.org/video/day-the-dinosaurs-died-rooax3/>

✓ ✓ Collectors' Edge Minerals, who brought the great rhodochrosites out of the Sweet Home mine a decade ago, are now developing a new mine at the Detroit City project above the Sweet Home. Here's a link to their website, with the latest news about the project:

<https://collectorsedge.com/blogs/detroit-city-mine-updates/detroit-city-another-chapter-in-the-www.spam.org-of-sweet-home-rhodochrosite>

✓ ✓ **Bob Baker** asked your editor to write up a brief summary of his "speechifying" at the March meeting. Here, for your edification, it is:

Each year, the LGGMC offers one or two scholarships to students from Park and Teller counties who intend to study the geological sciences in college. And each year, we seem to have a harder time finding a candidate. We sometimes give the money to the only candidate who applied; other years, we don't have a single applicant.

I started collecting minerals at age 12, when my family moved to Connecticut. The first public mineral collection I ever saw was at the Academy of Natural Sciences, in Philadelphia. From then on, museums have been one of my favorite places—I still enjoy visiting the Colorado School of Mines Geology Museum, the Museum of Nature and Science (Denver), the Smithsonian Institution, and even smaller, local museums such as the Museum of Mining and Industry in Colorado Springs. Unfortunately, I've also seen museum mineral collections decimated by uncaring trustees and curators. For example, the Academy of Natural Sciences collection was sold off to a group of dealers about 15 years ago and is now scattered to the winds. Similarly, the Penn State University's geology museum was dismantled in the early 2000s to make room for a nanotech facility that was never completed. The collection was packed up and scattered into closets and cubbyholes wherever room could be found; some parts of the collection were simply discarded. Small museums are even more vulnerable to the whims of thoughtless, poorly paid and poorly trained "curators" who may have no appreciation for minerals. Unless we clearly make our interest felt, a collection may disappear before we can do anything about it.

Because ALL museum collections are vulnerable, mineral collectors need to be proactive about supporting these important facilities. I believe they provide us with a valuable service that we too often take for granted. One way to support a museum is to donate parts of our collections. However, few museums really appreciate this; they often don't have the resources to deal with a big influx of mineral specimens, especially if they are poorly documented and of mediocre quality. Often, what museums really need is money to support their curation, storage, and research programs.

It seems to me that relatively affluent mineral clubs can AND SHOULD provide monetary support when they can. I also believe that we can get the biggest "bang for our bucks" by supporting curatorial interns, specifically in the geology departments of those institutions. In the case of the LGGMC, I propose that we support interns in our local museums, such as the WMMI or Cripple Creek District Museum, and in regional mineral repositories such as the Colorado School of Mines Geology Museum and the Museum of Nature and Science in Denver. Such financial support might help to raise the profile of mineral collections and make them more secure, in the face of hard times.

I proposed at the March meeting that we broaden our scholarship program to include support for geology curatorial interns at local or regional museums. We would also continue to support college geology students, when good candidates are available. Thanks to the club members at the March meeting for agreeing. We are now looking into how we can do this. --Bob Carnein

✓ ✓ President **Baker** also sent the following information about our April 21 trip to Baculite Mesa:

Collecting at Baculite Mesa

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The location is level and the walking is easy. Those who wish to venture further can encounter gently rolling hills to steep cliffs. The cone shaped structures you see to the north and east are Teepee Buttes, fossilized remnants of large clam colonies that formed around methane seeps in the shallow waters that covered this site 70 million years ago.

You will be able to find baculite segments about 3" long and cylindrical. Most are grey reflecting the Pierre Shale. The prize specimens will have some fossilized shell from the original baculite or suture patterns. Last year we found several small (3/4" in diameter) "ammonites"; we were partially correct as baculites are ammonoids, but these specimens are really juvenile baculites which start their life cycle as tightly coiled and later straighten as they mature. Baculites can grow to many meters long but are rarely found intact as they tend to break at their septa (chamber wall). Harvey Smith, the owner of the property, located a 1 meter long specimen while walking across his land but has failed to relocate this spectacular find so **you may be the lucky one.**

Hazards include rattlesnakes which may be active with our warmer Spring temperatures. Harvey recommends leather high top shoes and loose fitting jeans. Of course, Harvey has seen many rattlesnakes on his property, but we have been fortunate and not encountered any. If you bring kids along **Remember: Keep them close and be vigilant.**

✓ ✓ And here is the latest installment of "**Bench Tips**" by **Brad Smith** (www.BradSmithJewelry.com):

NO - MAR PLIERS



Pliers can often leave nicks and scratches on your work. If this is giving you a problem, first take a close look at the plier jaws. New tools can be a little rough. I typically relieve any sharp edges, sand away any tool marks, and give working areas a quick polish. If that doesn't solve the problem, you probably need to cover the jaws. Plastic electrical tape provides a quick fix but can leave messy adhesive on the jaws, and dips don't seem to last very long.

A quick and easy solution is to slip a length of 1/8-dia vinyl tubing over each jaw. It works well and leaves no sticky residue. The tubing can be found in a store that sells aquarium supplies. Note that this will increase the size of the plier jaws a bit, but I haven't found that to be a problem.

PATINA RECIPIES

Sometimes it's fun to explore some new patinas. If this appeals to you, here are a couple web sites that have ideas particularly for copper and bronze.

The first is The Science Company at <http://www.sciencecompany.com/Do-It-Yourself-Patina-Formulas-W12C672.aspx> with plenty of formulas for a variety of colors. And there are more formulas at Tim McCreight's Brynmorgen Press web site at <http://www.brynmorgen.com/resources.html>

Small quantities of chemicals for making your own patinas are available from The Science Company at <http://www.sciencecompany.com/Patina-Chemicals-Patina-Book-C672.aspx>

If you prefer to buy the patinas ready for use, one of the best sources I've come across is Sculpt Nouveau at <http://www.sculptnouveau.com/> Don't miss all the instructional pdf's on the site and be sure to take a look at the videos showing how to use the products at <http://www.youtube.com/sculptnouveau>

See all Brad's jewelry books at Amazon.com/author/bradfordsmith

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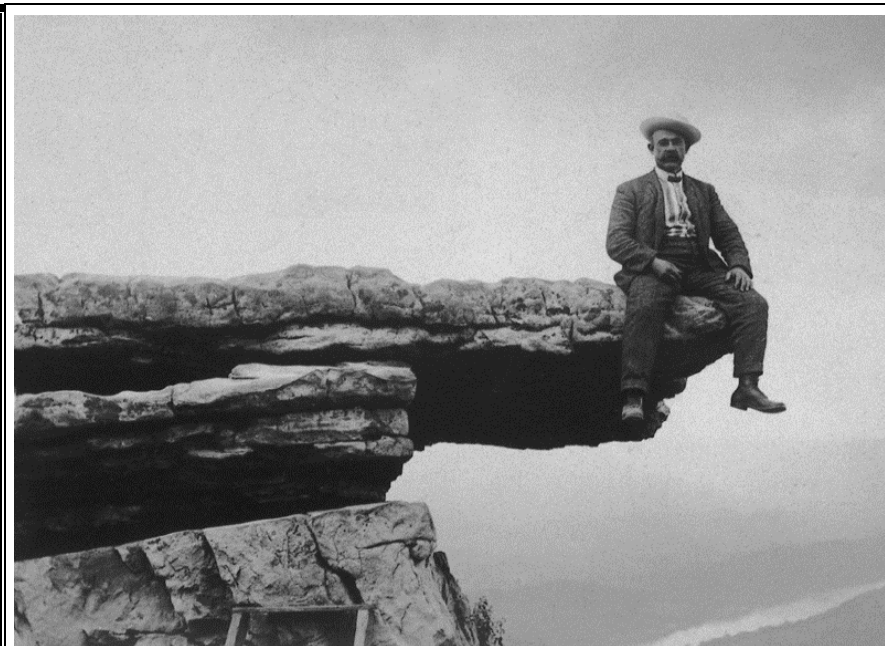
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Notes from the Editor

Bob Carnein, Editor

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Thanks to **Steve Veatch**, who sent in this interesting article about Leonardo da Vinci's connection to geology.

Geology of Leonardo's *Virgin of the Rocks*

By Steven Wade Veatch

Leonardo da Vinci (1452-1519), considered to be one of the greatest painters of all time, used his knowledge of geology to inform his art. Leonardo was also noted for his work in sculpture, anatomy, mathematics, architecture, and engineering during the Italian Renaissance (about 1330 to 1450).

From a geological perspective, Leonardo da Vinci's paintings present a realistic portrayal of nature. In his *Virgin of the Rocks* (1483-1486), on display in the Louvre in Paris, the geological accuracy is striking (Pizzorusso, 1996). The painting's subject is both the Virgin and the rocks. The Virgin sits in front of a grotto or cave. Various aspects of the grotto, according to geologist Ann Pizzorusso (1996), "are rendered with astounding geological accuracy. Leonardo has painted a rich earthscape of rock eroded and sculpted by the active geological forces of wind and water. Most of the rock formations . . . are weathered sandstone, a sedimentary rock." What looks like basalt, an extrusive igneous rock formed by the cooling of lava, appears above Mary's head and at the top right of the picture. Leonardo even painted the columnar joints formed by the cooling of the rocks. Also, just above her head is a precisely painted seam between the sandstone and igneous formations, and a rock joint runs horizontally to the right of her head. Art historians believe that the landscape in this painting is not an actual place, but one conjured up by Leonardo's experience, understanding of geology, and observation (Issacson, 2017).

A second version of the painting, also called the *Virgin of the Rocks* (1495-1508), is exhibited in the National Gallery in London. This painting fails to depict such a faithful rendering of geology as the one in Paris. Despite decades of analysis by scholars, there are doubts that it is an authentic da Vinci painting, but rather a copy of the original painting by another artist.

Leonardo da Vinci was ahead of his time in his understanding of geology, and he meticulously recorded his observations in notebooks and journals (Bressan, 2014). After his death, his notebooks ended up on the bookshelves in libraries and private collections throughout Europe, while other notebooks disappeared into history (Waggoner, 1996).

Da Vinci wrote in one of his notebooks, the *Codex Leicester*, about the fossils he found as he walked the countryside. Da Vinci recognized that fossils were the remains of once-living organisms and relics of former times and other worlds—traces of a past hidden to other thinkers of the time. Da Vinci also observed that distinct layers of rocks and fossils covered large areas, and the layers were formed at separate times—not in the single biblical flood (Issacson, 2017). And centuries before Darwin, Leonardo conjectured through his understanding of rocks, fossils, and the slow processes of erosion and deposition that the world is much older than what church fathers proclaimed (Jones, 2011).

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Leonardo da Vinci's *Virgin of the Rocks* (1483-1486). From his studies of geology, Leonardo learned how the Earth works and improved the realism of his paintings. Location: Louvre, Paris. Oil on panel transferred to canvas. Height: 199 cm (78.3 in). Width: 122 cm (48 in). Image is in the public domain.

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Leonardo da Vinci's observations of fossils found on the tops of mountains wore a path through his thoughts. Since fossils are found in the mountains, the surface of the Earth, Leonardo posited, has changed over time. For example, an ancient sea is now dry land (Jones, 2011). Leonardo concluded that as mountains formed, they lifted marine sediments—carrying fossil-bearing rocks skyward to become mountain peaks. Today, geologists know that tectonic plates and other geological processes form mountains.

In another of his notebooks, the *Codex Arundel*, now housed in the British Library, Leonardo describes graded bedding in layers of sedimentary rocks (Pedretti, 1998). He also had a basic understanding of the superposition of rock strata, where the oldest rocks in a sequence of sedimentary rocks are at the bottom. This concept would not be recognized until the second half of the 17th century when Danish geologist Nicolas Steno, carrying the light of learning, took up the subject in 1669, laying the foundation for modern stratigraphy and geological mapping (Capra, 2013).

Da Vinci never published his theories. He only wrote his observations in his notebooks, which ended up scattered or lost. For more than three hundred years, his notes were not part of the progression of science. It was left for future scientists to rediscover Leonardo's observations on the vastness of geological time, sedimentary layering, and the significance of fossils, and to make these discoveries part of science.

Leonardo da Vinci's endless curiosity and boundless creativity made him the quintessential Renaissance man. He was a keen observer of nature whose interest led him to paint nature not only beautifully, but accurately.

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Monthly Mineral Quiz

Answer to last month's quiz: Fluorapatite

Fluorapatite is the commonest member of the **apatite group** in granite pegmatites and other igneous and metamorphic rocks, as well as in hydrothermal veins. A variety containing Mn^{+2} (sometimes called *manganapatite* or *manganoan* apatite) occurs in granitic pegmatites (such as those near Guffey) and usually fluoresces yellow to orange in shortwave UV. Without Mn^{+2} or with more than 4 wt. percent Mn^{+2} , fluorapatite doesn't usually fluoresce.

This month's unknown "mineral", pictured below, is actually a metamorphic rock. The blue mineral is a complex silicate that usually occurs mixed with several other minerals. Its hardness is similar to that of a knife blade or glass; specific gravity is only 2.4; and it has a poor cleavage. Leonardo DaVinci was very familiar with it—in fact, he supposedly was asked to sign a contract promising to use an expensive blue pigment made by

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crushing this semiprecious gemstone and mixing it with one of several liquids. Its use for this purpose goes back at least 1600 years, but its use for adornment began for at least 9000 years. Most of it comes from a high, steep sided canyon in Badakhshan, but Siberia, Chile, and even Colorado have produced high quality material. What is it? (Answer next month.)



www.list-of-birthstones.com

RMGM PROMOTIONS PRESENTS

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An illustration of several purple and pink gemstones, possibly amethysts, set against a dark, splattered background. The stones are depicted with sharp, faceted edges and a translucent quality.

Lake George Gem & Mineral Club
PO Bo 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 opportunities to learn about Earth science, 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 on 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 10:00AM. From April through October, we meet at 9:00AM, 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).

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