



Colorado Scientific Society

The objective of the Society is to promote the knowledge and understanding of Earth science, and its application to human needs

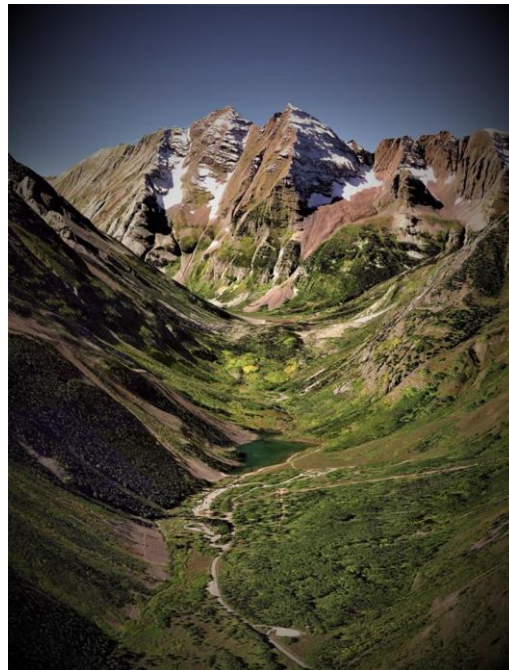
***March Meeting – All are always invited!
Thursday, Mar. 21, 2019, 6:30 p.m.***

social time 6:30 p.m., program at 7:00

Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood

A Cook's Tour of Colorado's Glacial Landscape

Dr. Vince Matthews



This is probably not the first time you have seen a similar image of these majestic peaks. Hordes of people ride the bus each summer to gaze upon the iconic Maroon Bells. But, how many of them realize that one reason they are so spectacular is because the bells are framed by a U-shaped glacial valley with faceted spurs and hanging valleys along its sides? And— how many of those realize that the valley was once filled with nearly 2,000 feet of ice? And— how many notice the rock glacier pouring out of the hanging valley below North Maroon Peak? And— how many of those realize that the rock glacier is flowing at 2.2 feet per year?

Throughout most of Earth history, glaciers did not exist on Earth. We

are fortunate because we live in a time when glaciers reside on nearly every continent, even though we are in a warmer interglacial stage. Why is this a big deal?

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Without glaciers to observe elsewhere on Earth, we might not be able to figure out what caused some of our most interesting landforms in Colorado. Suppose alpine glaciers did not exist on Earth today. Would we then be smart enough to propose that some valleys in Colorado had once been filled with ice thicker than the One World Trade Center is tall (1,776)? ...

Dr. Vincent Matthews III has had a long and varied career in geology, in industry and academia. He was the Colorado State Geologist and Director of the Colorado Geological Survey from 2004-2012. Vince was the author of *Messages in Stone, Colorado's Colorful Geology* (two editions, 2003 and 2009). Though he now resides in Wisconsin, Vince is on the Board of Directors of the National Mining Hall of Fame and Museum, Leadville, CO; he writes a periodic blog via Facebook on "Leadville Geology", and he is working on a forthcoming book, "*Land of Ice: A Guide to Colorado's Glacial Landscape*".

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A peek at our upcoming meetings & field trips in 2019: "Save the Dates!"

Thurs., March 21, Vince Matthews, past Colorado State Geologist, "**A Cook's Tour of Colorado's Glacial Landscape**".

Thurs., April 18, Colo. Sci. Soc. April Meeting & **Past Presidents' Dinner** featuring a dual presentation: Don Becker (USGS) and Jeff Sloan (USGS) **Kilauea's 2018 eruption - new methods and perspectives for monitoring volcanic eruptions**. Planned for the Mount Vernon Canyon Club (formerly, Mt. Vernon Country Club), Lookout Mountain, Golden, CO.

Tuesday, May 14, Colo. Sci. Soc. annual Emmons Lecture and May meeting, to take place in conjunction with a 2.5-day USGS-CSM-CGS joint Mineral Resources Forum. The lecture will be a presentation by Dr. Mark Barton, Univ. of Arizona, Lowell Institute for Mineral Resources. Mark's presentation title and the exact location (on the CSM campus) are still TBA. More info will be forthcoming!

Sunday, May 19, CSS Spring Field Trip: "**Quaternary Geology of the Denver Basin**". "A one-day field trip (about 9 a.m. to 4 p.m.) starting at the Morrison exit/Woolly Mammoth Park & Ride, with 4 to 6 field stops relating to the Quaternary/Pleistocene geology of the Denver Basin. The trip will include a visit to the Magic Mountain archeological site, which has recently been in the news because of recent excavations by DMNS.

Sat.-Sun., Sept. _____ (exact weekend date still TBD), **Geology and Geoheritage of the Florissant-Cañon City-Florence area**; a two-day field trip with an overnight in Cañon City. "Florissant Fossil Beds Nat. Mon.; Skyline Drive; Royal Gorge; Florence coal, oil, and gas basin; Cope-Marsh quarries."

Fall 2019 CSS planned meeting dates: Sept. 19, Oct. 17, Nov. 21, Dec. 19. Details to come.

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Colorado Scientific Society dues are \$25 for regular members, **\$20 if dues renewals are paid before Jan. 31 of each year**, \$10 for corresponding members (outside the Colorado Front Range area) and only \$5 for students. A Lifetime Membership is now available, for \$395.00. Mail a check to the CSS or pay with a credit card using PayPal on the CSS website. Please contact CSS Treasurer Don Sweetkind at 303-236-1828 or dsweetkind@usgs.gov if you are uncertain of your dues or membership status. Extra payments to contribute to our Memorial Funds or Endowment Fund are always most welcome; you'll see a list of them on the membership form attached to this newsletter, or see our website at <http://coloscisoc.org/membership-payment/>. Or see <http://www.coloscisoc.org>. To pay by mail, send payments to: **Colorado Scientific Society, P.O. Box 150495, Lakewood CO 80215-0495**

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Calendar of Coming Events

Through March 31: The Conifer Historical Society hosts a special exhibit on “**Mining in Jefferson County**” at Conifer’s “Little White School House” meeting place at 26951 Barkley Road, Conifer. The exhibit will be open (no admission charge; donations accepted) just one day a week, every Sunday from 11 a.m. to 3 p.m. The exhibit/display are really superb and I’m sure you will enjoy seeing it! There are only 2 more Sundays to see this exhibit, 3/24 & 3/31. For more information about the Historical Society and the exhibit, see <https://www.coniferhistoricalsociety.org/events/> .

Wed., Mar. 20, 4:00 p.m., University of Colorado Earth Sciences Colloquium, “**Glaciers**”, by Ian Willis, Cambridge. Benson Earth Science Building, Room 180, all are welcome; refreshments follow.

Thurs., Mar. 21, 4:00 p.m., Colorado School of Mines Van Tuyl Lecture, **Reconstructing Deep Ocean Circulation during Cenozoic Climate Transitions from the Marine Sediment Record**, by Brian Romans, Virginia Tech; 241 Berthoud Hall, all are welcome.

Thurs., Mar. 21, 7:00 p.m., “**A Cook's Tour of Colorado's Glacial Landscape**” by Dr. Vince Matthews. Monthly meeting of the Colorado Scientific Society, Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood; all are welcome.

Fri.-Sat.-Sun., Mar. 22-24, Fort Collins Gem & Mineral Show; at Thomas M. McKee Building, at The Ranch/Larimer County Fairgrounds, 5280 Arena Circle, Loveland, CO (I-25 exit 259); hours 4-8 Fri., 9-6 Sat., 10-5 Sun. Sponsored by the Fort Collins Rockhounds Club.

Sat.-Sun., Mar. 23-24, WIPS (Western Interior Paleontological Society) semi-annual Founders Symposium, “**Lagerstätten: Exceptional Preservation, Extraordinary Fossils**”. To be held at Lowry Conference Center, 1061 Akron Way, Denver. Two days of lectures, educational exhibits, displays of fossils, paleo art show and sale with over a dozen artists. See https://www.westernpaleo.org/symposiums/2019_pages/about-2019.php .

Mon., Apr. 1, 7:00 p.m., **The Leadville Limestone-The Magic Rock of Central Colorado**, by Ed Raines, Collections Manager, Colorado School of Mines Geology Museum; at the Western Interior Paleontological Society meeting, Lowry Conference Center 1061 Akron Way, Denver.

Tues., Apr. 2, 10:30 a.m., USGS Rocky Mountain Science Seminar, “**Dynamics of mud volcanoes and geysers**”, by Max Rudolph, Univ. of California-Davis. Building 25 auditorium, Denver Federal Center; visitors are welcome. Enter Building 25 at entrance E-14, by the security guard’s station.

Wed., Apr. 3, 3:00 p.m., Denver Museum of Nature & Science, Earth Sciences Colloquium, “**The evolution of plant-mite mutualisms: Clues from the DMNS collections**”, by Gussie MacCracken, Univ. of Maryland. VIP Room, DMNS; all are welcome, museum admission is not required.

Fri., Apr. 5, 3:00 p.m., Denver Museum of Nature & Science, Earth Sciences Colloquium, “**Exceptional fossils in carbonate concretions: Why they form and what they can tell us**”, by Tory McCoy, Univ. of Leicester. VIP Room, DMNS; all are welcome, museum admission is not required.

Fri., Apr. 12, 6:45 p.m., **North Jeffco Gem & Mineral Club Silent Auction;** all welcome (setup begins at 5:30). APEX Community Recreation Center, 6842 Wadsworth Blvd., Arvada. For more info, Bill Jones, 303-503-6288

Fri.-Sat.-Sun., Apr. 12-14, Colorado Mineral and Fossil Spring Show, Crown Plaza Hotel /Convention Center, 15500 E 40th Ave., Denver, Colorado, 10-6 Fri. & Sat., 10-5 Sun., free parking & admission.

Sun., May 19, Friends of Mineralogy, Colorado Chapter, Silent (+Vocal) Auction. Noon to 4 p.m., Clements Community Center, 1580 Yarrow St., Lakewood CO. All are welcome to attend.

Fri.-Sat.-Sun., May 31-June 2, Pikes Peak Gem & Mineral Show, Norris-Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs, CO 80905. Sponsored by the Colorado Springs Mineralogical Society.

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For more lecture series during the year see:

Colorado Beer Talks (2nd Tuesday, 6-8 p.m.), Windy Saddle Café, 1110 Washington Avenue, Golden, “Golden’s grassroots version of TED talks, Expand your mind with a beer in your hand”, <http://goldenbeertalks.org/>

Colorado Café Scientifique in Denver, monthly lectures on science topics held either at Blake Street Station or Brooklyn’s, Denver; open to the public, no charge other than refreshments you may choose to purchase; see <http://cafescicolorado.org/> .

Colorado Scientific Society (3rd Thursday, 7 p.m.), see <http://coloscisoc.org/> . Meets at Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood CO, except when noted.

CU Geological Science Colloquium (Wednesdays, 4 p.m.) see <http://www.colorado.edu/geologicalsciences/colloquium>

CSU Dept. of Geoscience Seminars (Fridays, 4 p.m.), see <https://warnercnr.colostate.edu/geosciences/geosciences-seminar-series/>

Van Tuyl Lecture Series, Colorado School of Mines, (Thursdays, 4 p.m.): <https://geology.mines.edu/events-calendar/lectures/>

Denver Mining Club (Mondays, 11:30), see <http://www.denverminingclub.org/> .

Denver Museum of Nature and Science, Earth Science Colloquium series, 3:00-4:00 p.m., VIP Room unless noted, day of the week varies. Museum admission is not required; see <http://www.dmns.org/science/research/earth-sciences/>

Denver Region Exploration Geologists Society (DREGS; 1st Monday, 7 p.m.), <http://www.dregs.org/index.html>

Florissant Scientific Society (FSS); meets monthly in various Front Range locations for a lecture or field trip; meeting locations vary, normally on Sundays at noon; all interested persons are welcome to attend the meetings and trips; see <http://www.fss-co.org/> for details and schedules.

Nerd Night Denver is a theater-style evening featuring usually 3 short (20-minute) TED-style talks on science or related topics; held more-or-less monthly at the Oriental Theater, 4335 W. 44th Ave., Denver; drinks are available; for ages 18+. Admission is \$6 online in advance, \$10 at the door. See <https://www.nerdnitedenver.com/> .

Rocky Mountain Map Society (RMMS; Denver Public Library, Gates Room, 3rd Tuesday, 5:30 p.m.), <http://rmmaps.org/>

Western Interior Paleontological Society (WIPS); beginning January 2019, WIPS will meet on the 1st Monday of the month, 7 p.m., at Lowry Conference Center, 1061 Akron Way, Denver. See <http://westernpaleo.org/> .

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2019 Colorado Scientific Society Officers, Councilors, and Committee Chairs

Officers

President..... Tom Casadevall, tcasadev@gmail.com, 720-244-7052
President-elect Jim Paces, jamespaces@comcast.net
Past President..... Bob Raynolds, bob.raynolds@dmns.org
Secretary..... Lisa Fisher, 303-215-0480, lisa.fisher@alumni.mines.edu
Treasurer..... Don Sweetkind, 303-236-1828, dsweetkind@usgs.gov, or
dsweetkind@gmail.com

Councilors

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2019-2021: Linda Barton Cronoble, lbarton1611@gmail.com, 720-338-1237
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Committee Chairs

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GSA Meeting Co-chairs, Lisa Fisher & Libby Prueher
History Chair: Beth Simmons, cloverknoll@comcast.net
Hospitality Chair: Mary-Margaret Coates, geotechedit@gmail.com
Membership Chair: Bob Raynolds, bob.raynolds@dmns.org
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Outreach: Linda Barton Cronoble, lbarton1611@gmail.com, 720-338-1237
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The CSS website is www.coloscisoc.org. Anyone can also view our facebook page, whether you have a facebook account or not, at <https://www.facebook.com/groups/511533159044226/>. If you use facebook—please go there and “like” the CSS! (Just search there for Colorado Scientific Society.)

And once more: to pay dues online, please go to:

<http://coloscisoc.org/membership-payment/>

Thank you!