



Founded in 1882, the objective of the Society is to promote the knowledge and understanding of Earth science, and its application to human needs. Samuel Franklin Emmons, 1841-1911, was “Geologist in Charge” of the Colorado Division of the U.S. Geological Survey when it was established in 1879 and was the first president of the Society.

December 2023 Colorado Scientific Society Newsletter

CSS December Annual Meeting and Presidential Address

The Central City Gravel and Regional Revelations

Tuesday, December 12, 2023 – *Note: Tuesday*
Cal Ruleman, US Geological Survey

“Neogene Tectonomagmatic Fragmentation and Middle Pleistocene Glaciofluvial Integration of North American River Systems: New Chronologies Reveal Elusive Neotectonics, Profound Unconformities, and the Reality of Fascinating Landscapes and Amazing Geologic Processes”

Meeting includes a potluck dinner at New Terrain Brewery, 16401 Table Mountain Parkway, Golden
5:30 pm – Social Time and Potluck Dinner starts
7:00 pm – CSS Business Meeting and Cal Ruleman’s Presentation

The CSS Business Meeting and Cal Ruleman’s presentation will also be available on Zoom. A link will be available here so people can Join the Zoom meeting. New Terrain Brewing company is southeast of North Table Mountain, off Table Mountain Parkway, which is north of W. 44th Ave.

CSS Potluck Dinner – after 5:30 pm

- Bring a main course entree, a side dish, salad, or desert, etc. to share with other CSS members. CSS Council members will provide a spiral cut ham and rolls
- We will not be able to cook at New Terrain Brewery. We should be able to warm up dishes.
- CSS will provide plates, bowls, cups, dishes, napkins and eating utensils.
- CSS will provide some soft drinks. You can purchase a selection of beers and ales from New Terrain (and help cover our expenses for the night). Please do **not** bring your own alcoholic beverages.

Colorado Scientific Society Annual Business Meeting – 7:00 pm

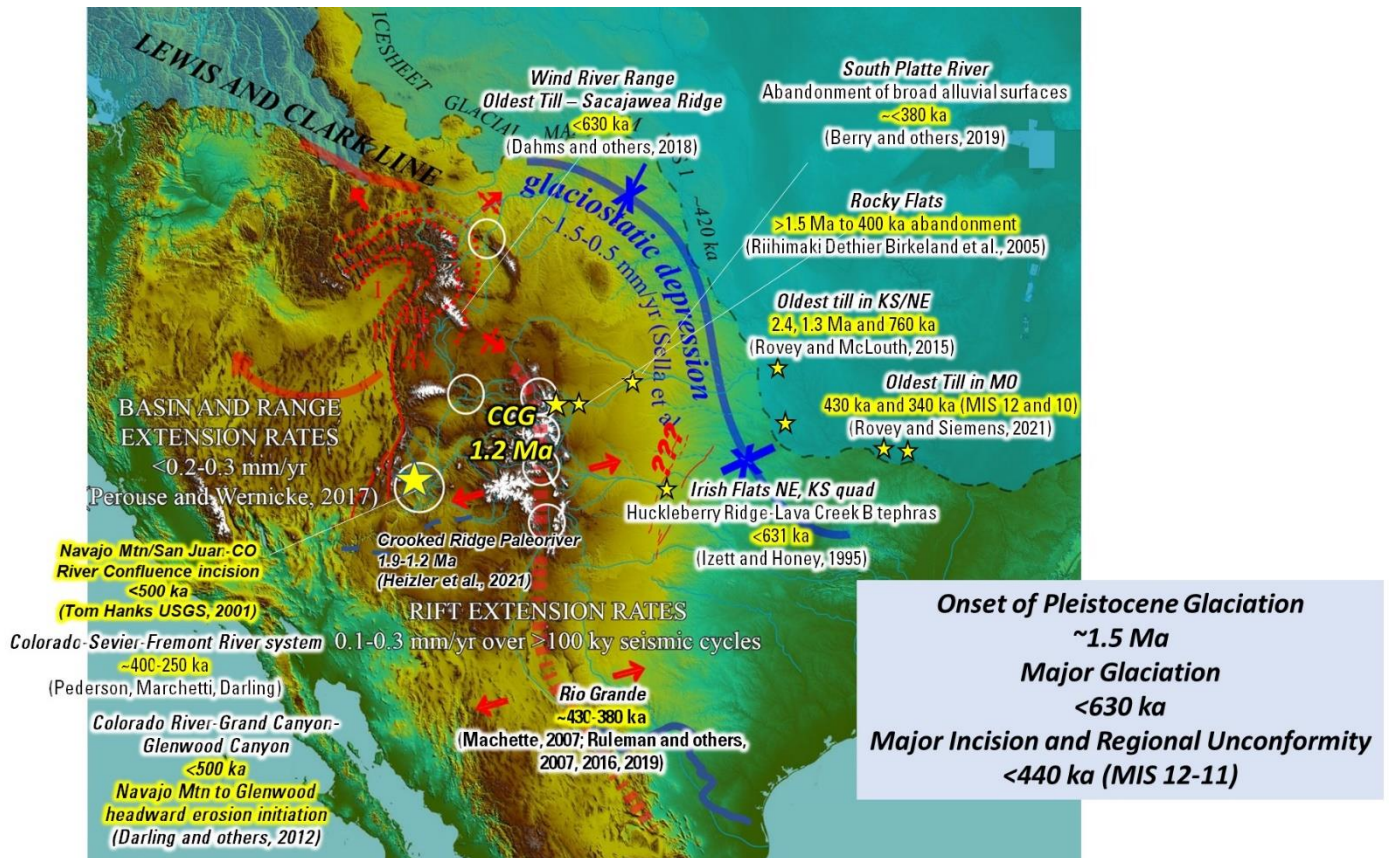
The Annual Meeting includes our election of 2024 CSS officers, presentation of the Society's Best Paper Award for 2023 Meetings, presentation of the CSS Silver Gavel to the incoming CSS President, and a vote to approve the updated Colorado Scientific Society Constitution and Bylaws. The details of the Business Meeting will be posted soon.

The Central City Gravel and Regional Revelations, by Cal Ruleman, CSS President

Abstract: Within the Front Range, several continued debates and problems occur:

- 1) Front Range Structure and its Origin, which are directly tied to potential Earthquake Hazards and North American neotectonics; and
- 2) When did Pleistocene glacial environments begin and what was the extent and geomorphic repercussions, which can be directly applied to Paleoclimate Histories and Cause and Effect of Glacial Episodes and Dramatic Climatic Change in the geologic record.

The Central City Gravel and its regional correlatives provide data to address both debates. Herein, I continue where the working model was presented to CSS in 2017, and couple classic geologic and geomorphic relationships and datasets with contemporary neotectonic, paleoclimatic, and NEW chronologic data to provide a simple solution to both problems. And additionally, provide insight to why possibly the largest gap in the human evolutionary record is between ~400-200 thousand years, coincident with the most extreme global geomorphic interval in the Pleistocene.



See our CSS website for more info and diagrams relating to Cal's presentation!

All interested persons are always welcome to come to attend any of our regular monthly meetings, usually held (subject to revision) on the 3rd Thursday evening of the month, September through May, in the Community Room, Calvary Church Golden, 906 14th St., Golden CO. Social time before the meeting begins at 6:30 p.m., program at 7:00.

And if you wish to join CSS (we hope you will!), or renew your membership, just see our website, <https://coloscisoc.org>.

Please remember that updated and detailed info about all our current & coming events will always be posted on our website.

CSS events for 2024:

Thurs., Jan. 18, 7:00 p.m., The USGS National Seismic Hazard Model, by Allison M. Shumway, U.S. Geological Survey. Calvary Church, Golden. Social time begins at 6:30 p.m., program at 7:00. The program will also be streamed via Zoom; see <https://coloscisoc.org> for more information.

Planned meeting dates for the rest of the year are:

Feb. 15, Mar. 20, Apr. 17, May 15, Sep. 18, Oct. 16, Nov. 20, Dec. 18 (Fall dates especially, subject to revision).

We are also planning to have some “No Moss” short field trips, and one or more full-day or weekend field trips, during the year; we’ll be informing you (and see our website!) as specific trips are scheduled. Some likely trips being discussed include: Faulting on Green Mountain; Gateway Mesa (Castle Rock) Open Space and the Castle Rock Conglomerate; geologic structures along Coal Creek; Eldorado Springs Canyon; and, building stones in downtown Denver historic buildings.

I’ll hope to see you at many or all of these coming events!

---Pete Modreski, CSS newsletter editor; you can always write to me at pmodreski@gmail.com

Nominations solicited for 2024 CSS officers and Council

CSS members are invited to send us any suggestions you have (whether of another person, or of your own willingness!) of candidates for CSS Council members and officers. You may write about any suggested nominees to our 2023 President, Cal Ruleman, at rlemancal@gmail.com. Our present Council and Officers are:

Council:

Cal Ruleman – President	Lew Kleinhans – Councilor 2021–2023
Jeff Pigatti – President Elect	Karen Berry – Councilor 2021–2023
Ned Sterne – Past President	Michael Frothingham – Councilor 2023–25
Patrick Sullivan – Secretary	Kassandra Lindsey – Councilor 2023–2025
Jim Paces – Treasurer	Lesli Wood – Councilor 2022–2024
Chris Morrison – Chair, Webmaster	Julie Herrick – Councilor 2022–2024
Pete Modreski – Newsletter	Sylvia Nicovich – Chair, Field Trips

CSS always has a President Elect, elected the previous year; thus, Jeff Pigatti will be our President for 2024, but we will need to nominate a new President Elect for 2024. Candidates for all the offices will be announced to members in our December newsletter, and the election of officers will be conducted at our Dec. 12 Annual Meeting.

Proposed changes to CSS Constitution and Bylaws

A CSS committee has prepared and proposes a number of changes to our Constitution and Bylaws, basically to make them more up-to-date in regard to some of the changes in technology relating to how our organization actually operates now vs. the way the existing bylaws read. The present and the newly proposed Constitution and Bylaws can be read and

compared on our website, under About Us – Constitution and Bylaws. See https://coloscisoc.org/wp-content/uploads/2023/10/CSS-Constitution-and-Bylaws_2023.pdf . If not yet added there by the time you read this, we will also add there soon, a document showing the marked-up changes this represents to the existing bylaws. Members present will be asked to vote on the proposed changes at our Dec. 14 Annual Meeting.

Coming Earth Science Events being sponsored by other organizations, December 2023 + 2024, updated 12/6/2023 by Pete Modreski, pmodreski@aol.com or pmodreski@gmail.com

Fri.-Sat.-Sun. Dec. 8-10, “Rocks and Rails” Gem and Mineral Show sponsored by the Flatirons Gem and Mineral Club, Boulder County Fairgrounds, 9595 Nelson Road, Longmont; combined with the Boulder County Model Railroad Club model train show; one admission for both, adults \$8, seniors \$5, children under 12 free with adult. Fri & Sat. 10 a.m. – 5 p.m., Sun. 10 a.m. – 4 p.m.

Tues., Dec. 12, 5:30 p.m., Colorado Scientific Society, December Annual Meeting, Potluck Dinner and Presidential Address, Cal Ruleman, US Geological Survey: The Central City Gravel and Regional Revelations; at New Terrain Brewery, Golden. *Please note: the date of this meeting has been changed; it had earlier been announced as Thursday, Dec. 14.* Potluck dinner begins at 5:30 p.m.; the presentation will begin at about 7 p.m. The presentation will also be live-streamed by Zoom: see <https://coloscisoc.org/> for details. All are welcome to attend!

Some 2024 events:

Thurs., Jan. 18, 7:00 p.m., social time 6:30, The U.S. Geological Survey National Seismic Hazard Model, by Allison M. Shumway, USGS. Colorado Scientific Society monthly meeting, at Cavalry Church, Golden, All are welcome; live and via zoom.

Thurs.-Sun., Feb. 8-11, Tucson Gem and Mineral Show, at the Tucson Convention Center. These are the dates of the original, “main” show, sponsored by the Tucson Gem and Mineral Society; many other shows also take place in Tucson at multiple locations during the previous several weeks.

Fri.-Sat.-Sun., Feb. 23-25, Denver Gem and Mineral Guild, Gem and Mineral Show, 10-5 Fri. & Sat., 10-4 Sun., Jefferson County Fairgrounds, Exhibit Hall, 15200 W. 6th Ave., Golden. No admission charge. Dealers, club demonstrations, special exhibits, fluorescent display, door prizes, and more.

Fri.-Sun., March 22-24, Fort Collins Gem and Mineral Show, 4-8 p.m. Fri., 9-6 Sat., 10-4 Sun., at The Ranch/Larimer County Fairgrounds, Thomas M. McKee 4-H Building; the Fort Collins Rockhounds Club 61st annual show.

Fri.-Sun., April 12-14, Colorado Mineral and Fossil Spring Show, Crowne Plaza DIA, 15500 E 40th Ave., Denver CO 80239. No admission charge.

Sat., May 4, 12:00-3:00 p.m., Colorado Mineral Society Silent Auction, held at Wheat Ridge United Methodist Church, Exhibition Hall, 7530 W. 38th Ave. (just east of Wadsworth). All are welcome to attend, and to bring specimens to sell in the auction (minimum donation of 20% of selling price to the club). Setup begins at 11 a.m.; there will be a vocal auction as well as silent auction tables.

Sat., May 18, 12:00-3:00 p.m., Colorado Chapter, Friends of Mineralogy Silent Auction, held at Wheat Ridge United Methodist Church, Exhibition Hall, 7530 W. 38th Ave. (just east of Wadsworth). All are welcome to attend, and to bring specimens to sell in the auction (minimum donation of 20% of selling price to the club). Setup begins at 11 a.m.; there will be a vocal auction as well as silent auction tables.

Fri.-Sun., June 7-9, Pikes Peak Gem and Mineral Show, at the Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs, sponsored by the Colorado Springs Mineralogical Society. Fri. 12-7 p.m., Sat. 10-5, Sun. 10-4.

Thurs.-Sun., June 13-17, A Mineralogical Symposium, sponsored by the Colorado Chapter, Friends of Mineralogy: **Mineral Oddities: Pseudomorphs, Twinning, Inclusions, and more.** *The dates and preliminary plans for this symposium have just been decided upon and announced. It will include lectures, an evening reception at the Colorado School of Mines Museum, field trips, and a Mineral Photography workshop conducted by Jeff Scovil. The lecture sessions will take place in Berthoud Hall, CSM campus. All interested persons will be welcome to register to attend. For more information about the symposium as it becomes available please see the FMCC website, <https://friendsofmineralogycolorado.org/>*

Thurs.-Sun., July 25-28, Fairplay Gem, Mineral, and Jewelry Show; Platte Drive, ½ mile west of US-285, Fairplay, CO; free admission and parking.

Thurs.-Sun., Aug. 8-11, Buena Vista Contin-Tail Gem, Mineral, and Fossil Show, Buena Vista Rodeo Grounds; free admission and parking.

Thurs.-Sun., Aug. 15-18, Woodland Park Gem & Mineral Show; located outdoors off US-24; free admission and parking.

Thurs.-Sun., Aug. 16-18, Lake George Gem & Mineral Show; located outdoors off US-24; free admission and parking. Sponsored by the Lake George Gem & Mineral Club.

Thurs.-Sun., Sept. 12-15, Denver Gem and Mineral Show, part of the Hardrock Summit Show, and cosponsored by the nonprofit Greater Denver Area Gem and Mineral Council, an association of 7 Front Range area gem, mineral, and fossil clubs. In 2024 this will be held at the **Westin Westminster Hotel**, 10600 Westminster Blvd., Westminster CO. The show includes museum displays, club booths and demonstrations including free mineral and gem identification, and sale of grab bags for kids that goes toward a scholarship fund at Colorado School of Mines. Free admission and parking.

Several other gem, mineral, and jewelry shows will take place in Denver during the week preceding the “Denver Show”. These include:

Fri.-Mon., Sept. 5-8, Just Minerals and Crystals Event Denver, Denver Airport Marriott at Gateway Park, 16455 E. 40th Circle, Aurora CO. Free parking & admission.

Sept. 6-14, Colorado Mineral and Fossil Fall Show, Crowne Plaza DIA, 15500 E 40th Ave., Denver CO 80239. Free admission & parking.

Sept. 6-15, Denver Mineral, Fossil, Gem & Jewelry Show; Denver Expo Gem Show; and Miner’s Co-op Show; all at the National Western Complex, 4655 Humboldt St., Denver. Free parking & admission.