



Colorado Scientific Society

Newsletter of the Society

November 2019

*November meeting, Thursday, Nov. 14, 7:00 p.m.
social time 6:30 p.m., program at 7:00
Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood*

Archaeology of Peru's North Coast: The Moche Culture and Beyond

Michele Koons, Denver Museum of Nature and Science



explore the evidence that supports this current trend in thinking, while focusing specifically on recent work at the site of Pañamarca—one of the southern-most Moche settlements known for its elaborate multi-colored murals.

This presentation will explore the politics and power of the Moche archaeological culture (250-900 AD) of the North Coast of Peru. Moche's distinct archaeological signatures (exquisitely decorated ceramics, monumental architecture, polychrome murals, metalwork, etc.) have long been seen as the first evidence for a South American state. However, current scholars have begun to pull apart these assumptions and view Moche as a more complex mosaic of interacting settlements across a landscape. I will

Dr. Michele Koons is the Curator of Archaeology at the Denver Museum of Nature & Science (DMNS). Dr. Koons studies ancient socio-political dynamics, cultural landscapes, and how people of the past interacted with their environment. Currently, she directs three field programs. The first is a community-based public archaeology project at the hunter-gatherer site Magic Mountain in Golden, CO. Her second project is excavating a great kiva in the Gila National Forest of New Mexico and exploring the cultural landscape of the kiva's surroundings. Finally, Michele is co-PI on a project examining the human impact on the environment through time of the Nepeña Valley in northern coastal Peru.

CSS Upcoming Meetings:

Thursday, December 19, 2019: CSS Annual Meeting, Potluck Dinner & President's Address

Geological heritage: a new frontier for the Earth Sciences

Dr. Tom Casadevall, Scientist Emeritus, U.S. Geological Survey, 2019 CSS President

[I believe Tom did give me the above presentation title at one point, although I may have partly created it on my own; he may adapt or revise it totally, between now and the date of his President's Address!]

Social time & dinner will begin at 5:30 p.m.

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

Important note – change in meeting place for 2020!

Beginning January, 2020, CSS will meet in Berthoud Hall, Room 241, Colorado School of Mines campus.

Located along 16th St. between Illinois and Maple Streets, Berthoud Hall may be entered from doors on any side of the building. Campus parking is free after 5 p.m.; you may park on Maple, Illinois, or other campus streets (16th St. next to the building is a pedestrian mall, closed to traffic) or in campus parking lots. There is a ground level entrance with access to an elevator, off 16th St. Room 241, on the 2nd floor, is located on the west (Maple St.) side of the building. Meetings will begin at 7:00 p.m., preceded by a social time beginning at 6:30. We will meet in Berthoud Hall unless otherwise noted.

2020 CSS meeting schedule:

Thurs., Jan. 16, **Deciphering the timing and causes of Great Unconformity erosion: An example from Pikes Peak, Colorado**, by Rebecca Flowers, University of Colorado

Thurs., Feb. 20, **Petrologic evolution of Platoro magmatic system after the eruption of the Chiquito Peak Tuff, San Juan Volcanic Locust, Colorado**, by Amy Gilmer, U.S. Geological Survey, Geoscience and Environmental Change Science Center

Thurs., Mar. 19, **Historic 2019 Colorado Avalanches: A case history of destruction in Hinsdale County, impacts to historic mining dams, and how snow avalanches may influence development of rock glaciers**, by Jonathon Lovekin, Colorado Geological Survey

Thurs., Apr. 16, **The Corral Bluffs Mammal Find**, by Ian Miller and Tyler Lyson, Denver Museum of Nature and Science; at the **CSS Annual Past Presidents' Dinner**, to be held at the **Mount Vernon Canyon Club**

Sat., May 16, CSS will co-sponsor a **2020 Symposium on Water and Energy**, to be held in Ricketson Auditorium, Denver Museum of Nature and Science

Thurs, Sept. 17, program topic to be confirmed

Thurs., Oct. 15, **CSS Annual Emmons Lecture: Comets: Where We Are, How We Got Here, and Where We Want to Go Next**, by Mike Zolensky, NASA Johnson Space Center; *Meeting location TBA*

Thurs., Nov. 19, program topic to be confirmed

Thurs., Dec. 17, **CSS Annual Meeting, Potluck Dinner, and President's Address**; meeting place TBA

October's "Where is this rock?" I did receive one guess, from Jim Piper, for my October picture (on the right). "I think it is an ashflow, from Mt Aetna, on the road to 285 from Salida CR187, near The Castle." A good guess, but not it. The photo is of an igneous dike of mid-Tertiary-age dacite along Teller County Road 3, between Florissant and Westcreek. I said that it's quite unusual, because it occurs right in the middle of the Pikes Peak batholith, cutting the granite. It is located just west of Signal Butte, an intrusion (a plug or subvolcanic neck?) of the same composition which forms a prominent conical-shaped hill, 9459'. A nice trail, accessed from the east side via Forest Road 362 and then 362A, leads to the summit. Signal Butte itself (here's a photo, right) was the subject of one of my earlier "Where's this rock" photos several years ago. You can read a very good essay about the geology and location of Signal Butte in a blog by Mike Nelson, a retired geology professor who writes for the Colorado Springs Mineralogical Society, at <https://csmgeologypost.blogspot.com/2011/02/signal-butte-geological-oddity.html>. As Mike notes, Wilson and Bryant (USGS OFR 2006-1051) describe the rock as pyroxene-hornblende trachydacite.



"What is this rock?", November

Here is my November picture! This bank of exposed material is located near the southeastern edge of the town of Longmont, Colorado.



What is it, and what is its geologic age? A hint—a similar exposure can be seen along I-76 near Fort Morgan. Write and send your answer or your best guess to the editor, Pete Modreski, pmodreski@usgs.gov, or pmodreski@aol.com (use the latter address, and I'll be able to see your response over the weekend). Answer next month!



Calendar of Coming Events

Thurs., Nov. 14, 7:00 p.m., Archaeology of Peru's North Coast: The Moche Culture and Beyond, by Michele Koons, Denver Museum of Nature and Science. Colorado Scientific Society monthly meeting, Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood; social time at 6:30; all welcome.

Thurs., Nov. 14, 7:30 p.m., Gold: A journey from the Big Bang to the forest of the Amazon, by Dr. Terry Wallace, Director Emeritus, Los Alamos National Laboratory. At the bimonthly meeting of Friends of Mineralogy, Colorado Chapter; Berthoud Hall Room 109, Colorado School of Mines campus, Golden. All are welcome.

Fri.-Sat.-Sun., Nov. 15-17, Gem and Mineral Show, Jefferson County Fairgrounds; 10-5 Fri. & Sat., 11-4 Sun., 15200 W. 6th Ave., free parking & admission.

Mon., Dec. 2, 3:00-4:00 p.m., DMNS Earth Sciences Colloquium, "The Fossil Atmospheres Project: A novel experiment to test CO₂ proxies using citizen scientists", Richard Barclay, Smithsonian Institute. VIP Room at Denver Museum of Nature & Science, all are welcome.

Wed., Dec. 4, 4:00 p.m., CU Geological Science Colloquium, Bighorn River geomorphic mapping and sediment tracers, by Melissa Foster, U.S. Bureau of Reclamation. "All talks are held in the Benson Earth Sciences Auditorium (180) every Wednesday at 4:00 pm unless otherwise noted. All colloquia are open to everyone. After colloquium, a social hour with snacks, beer, and non-alcoholic drinks will be held in Benson 185. Social hour is a great opportunity to discuss the colloquium with your peers and ask the speaker any lingering questions."

Sat., Dec. 7, 2:30-5:30 p.m., WIPS (Western Interior Paleontological Society) Annual Auction Fundraiser, Clements Center, 1580 Yarrow St., Lakewood. All are welcome.

Thurs., Dec. 10, 6:30 p.m., "Funiculars of Golden Colorado", by Barb Warden, goldentoday.com; at "Golden Beer Talks" at the Buffalo Rose, 1119 Washington Ave., Golden. For more info see <http://goldenbeertalks.org/>

Fri.-Sat.-Sun., Dec. 13-15, Flatirons Gem & Mineral Show, "Rocks & Rails", Boulder County Fairgrounds, 9595 Nelson Rd., Longmont CO, Main Exhibit Building. 10 a.m. – 5 p.m. each day. Held in conjunction with the Boulder County Model Railroad Club Show.

Thurs., Dec. 19, 5:30 p.m., Colorado Scientific Society Annual Meeting, 2019 President's Address (Tom Casadevall, USGS), and potluck dinner. Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood; all welcome.

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For more lecture series during the year see:

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.

Golden Beer Talks (2nd Tuesday, 6-8 p.m.), at the Buffalo Rose, 1119 Washington Ave., Golden. Doors open at 6; Talk begins at 6:35; Intermission – 7-7:15; Q&A/clean up 7:15-8. “Golden’s grassroots version of TED talks, Expand your mind with a beer in your hand”, <http://goldenbeertalks.org/>

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

Western Interior Paleontological Society (WIPS); WIPS now meets 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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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

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
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Councilors

2017-2019: Jim Reed, jim@rockware.com
2017-2019: Chris Morrison, chris-morrison@comcast.net
2018-2020: Pete Modreski, pmodreski@aol.com, 720-205-2553
2018-2020: Matt Rhoades, rhoadesgeo1@gmail.com
2019-2021: Linda Barton Cronoble, lbarton1611@gmail.com, 720-338-1237
2019-2021: Yvette Kuiper, ykuiper@mines.edu, 303-273-3105

Committee Chairs

Database Manager: Paul Morgan, 303-384-2648, morgan@mines.edu
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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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Past Presidents' Best Paper Award: Bob Raynolds, bob.raynolds@dmns.org
State Science Fair Awards: Chuck Weisenberg, 303-238-8806, cweisnbrg@msn.com
Student Programs Chair: Melissa Foster, melissa.ann.foster@gmail.com, 707-498-2484
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Webmaster: Chris Morrison, chris-morrison@comcast.net

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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.)

To pay dues online, please go to:

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

Thank you!

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