

February 2020



LOS ANGELES BASIN GEOLOGICAL SOCIETY

February 27th (Thursday) – 11:30 AM

Mackenzie Day, UCLA

Wind and Aeolian Sandstones on Mars

Abstract

Wind on Mars transports sediment around the planet, forming mobile bedforms and carving bedrock into aerodynamic morphologies. Deposits of lithified aeolian sandstones reflect more ancient aeolian activity and preserve information about climatic and wind variability. The wind-formed features on the surface of Mars reflect the history of winds in the area and are a key tool for climatic reconstruction. We use wind-formed surface features to interpret and reconstruct the ancient winds and availability of sediments. In Jezero crater, the Mars 2020 rover landing site, surface features indicate two long-lived wind directions have shaped the area. To the west, sedimentary deposits abound in Arabia Terra, including a paleo-dune field accumulation in Barth crater. Ancient curvilinear terrain in this region was mapped and interpreted as evidence of large-scale repeated wetting and drying sequences during the Hesperian-Noachian climate transition that preserved barchan and transverse aeolian dune strata. These case studies demonstrate the utility of sedimentology-based reconstruction and suggest that wind has left many more signatures on the Martian surface.

Speaker's Biography

Mackenzie Day is an Assistant Professor at UCLA focusing on sedimentary processes on Earth and other planets. Day manages the GALE lab at UCLA, a group that currently conducts field, experimental, and remote sensing research with the participation of ~10 undergraduate and 3 graduate students. Day specializes in aeolian processes and the formation and preservation of dunes.

**Please join the LABGS to see
Mackenzie's presentation!**

Meeting Time, Place, Cost, and Reservations

When:

Thursday, February 27, 2020

Meeting Agenda

Lunch Served: 11:30 AM to 11:45PM
Announcements: 11:45 AM to 12:00 PM
Guest Speaker: 12:00 PM to 12:45 PM
Questions/Close: 12:45 PM to 1:00 PM

Place:

The Grand at Willow Street Conference Center located at 4101 East Willow Street, Long Beach, CA (562-426-0555). Take Lakewood Boulevard south from the San Diego Freeway (I-405), turn west onto Willow Street, and turn right onto Grand Avenue at the sign for the Center. Park for free in the multi-level garage structure.

Cost:

Lunch and Speaker: \$30.00 with reservations
\$40.00 without reservations

Retired: \$25.00

Student: \$10.00

PAYMENTS IN CASH OR CHECK ONLY

Meeting Reservations:

We encourage you to make your reservations using the LABGS web site, at www.labgs.org

Or, call **Joseph Landeros** at 626-497-1710 or email him at landerosjd@gmail.com

Reservations must be made by: 10:00 AM Tuesday February 25th to receive reservations discount price indicated above
(this will be strictly adhered to)
But, as always, walk-ins are welcome!

OUR WEB SITE ADDRESS:

www.labgs.org

Note change in web address

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ANNOUNCEMENTS:

The LABGS has expanded our meeting raffles. We would appreciate raffle prize donations!
Please bring donation items to the next meeting.

Do you know if your PSAAPG/LABGS membership is current?

If you don't know, and want to, check via the PSAAPG website:

<http://www.psaapg.info/cloud/miscellaneous/dues.php>

Please inform a LABGS Board member if you have a pertinent announcement.