

SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

SDAG MEETING ANNOUNCEMENT

WEDNESDAY August 18th 2021

5:30 PM - Happy Hour

**6:00 PM - Meeting
Begins**

Note:

This will be **an hour earlier** to accommodate our guest speaker who is in the East Coast

***** VIRTUAL MEETING *****

Join Zoom Meeting

[https://us02web.zoom.us/j/
85798184239?](https://us02web.zoom.us/j/85798184239?)

[pwd=SHI4S3FIRTVVV1hQM0pJekZ
1MUxZdz09](https://us02web.zoom.us/j/85798184239?pwd=SHI4S3FIRTVVV1hQM0pJekZ1MUxZdz09)

Meeting ID: 857 9818 4239

Passcode: 461844

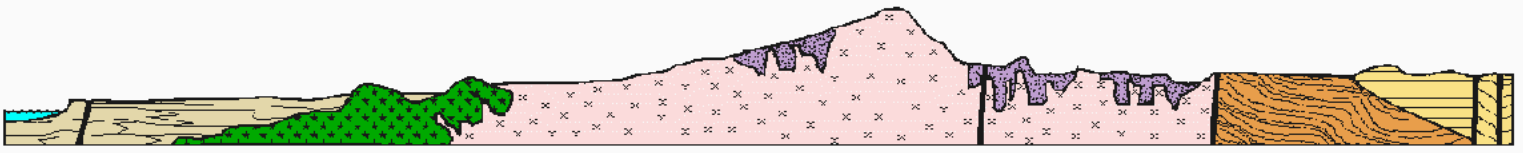
TITLE:

**Rhyolite Domes and Subsequent Offlap of
Pliocene Limestone on Volcanic Islets at San
Basilio (Baja California Sur, Mexico)**

GUEST SPEAKER

Markes E. Johson





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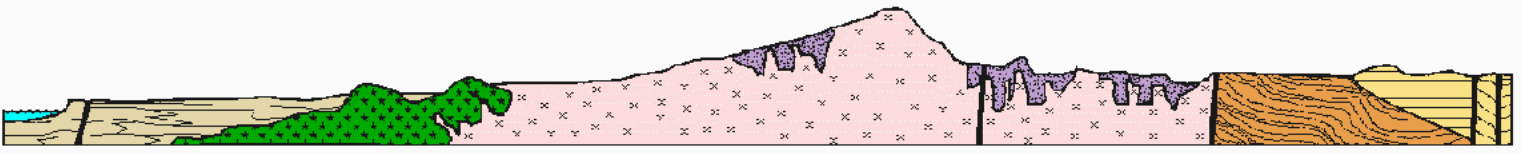
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ABSTRACT

The scenic San Basilio basin near Loreto in Baja California Sur (Mexico) exhibits distinct styles of volcanism that interrupted phases of normal sedimentation during the early Pliocene between 5 and 3.5 million years ago. Sea cliffs around a 4-km² bay on the Gulf of California are dominated by rhyolite, mudstone, sandstone, and limestone. Volcanism associated with jigsaw-fitted hyaloclastite is regionally uncommon and the challenge is to register interactions between volcanic events and intervals of stability represented by strata including microfossils and macrofossils. Relating the basin's faults to Pliocene development in the greater Gulf of California is a secondary goal. Microfossils *Bolivina bicostata* and *B. interjuncta* recovered from mudstone indicate an initial water column with a depth of 150 m. An abrupt hydromagmatic explosion ruptured the mudstone cover, followed by banded rhyolite flows inter-bedded with sandstone. Outlying limestone beds with the index fossil *Clypeaster bowersi* are separated from rhyolite by conglomerate eroded under intertidal conditions. A renewed phase of activity saw eruption of smaller volcanos in the basin center semi-contemporaneous with pecten limestone deposited on unstable slopes. Normal faults conform to a pattern of extensional rifting in the proto-gulf, followed by cross-cutting faults indicating the onset of transtensional tectonics beginning about 3.5 Ma.

CALL FOR ARTICLES

SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.



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SPEAKER BIO

Markes E. Johnson is the Charles L. MacMillan Professor of Natural Science, Emeritus, at Williams College in Williamstown, Massachusetts, where he taught courses in historical geology, paleontology, and stratigraphy in the Geosciences Department over a 35-year career. He grew up in the American Midwest, where bluffs along the Upper Mississippi River drew his attention as a hobbyist collecting marine fossils that lived in a vast continental sea. His undergraduate education in geology concluded with a BA degree (1971) from the University of Iowa and his advanced training in paleoecology through the Department of Geophysical Sciences at the University of Chicago culminated with a PhD degree (1977). During his career, studies on paleoislands have taken him to sites in Scandinavia, the United Kingdom, Canada, Korea, China, and Australia. Since 1990, Prof. Johnson has frequented the Baja California peninsula and Mexico's Gulf of California to study coastal island deposits related to the Pliocene Warm Period when sea level and global temperatures were higher than today. Since 2009, he has contributed to studies regarding the Miocene to Pleistocene history of North Atlantic islands, including those of the Cape Verde, Canary, Madeira, and Azores archipelagos.

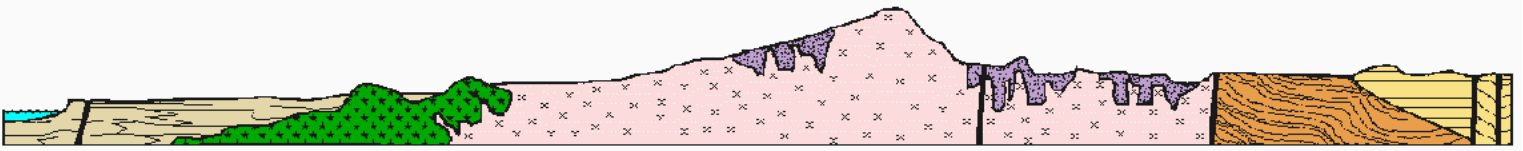
NEXT MEETING

WEDNESDAY SEPTEMBER 15th

Virtual??? In Person???

We are still unsure....

But will let you know as soon as we know!



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PRESIDENT'S CORNER

Hello SDAG Members!

Many thanks to everybody that attended last month's meeting! Such enjoyable presentations by our scholarship winners.

Another big thanks to Xiomara and Ryley!

As always, a brief reminder to fill out and send in your 2021 memberships and, if you have the reserves, 2021 sponsorships. Don't forget to save the date for this year's field trip! October 23-24.

For this month's meeting, we are excited to welcome Markles Johnson, Prof. Emeritus from Williams College. He will be giving a presentation based on his recent book, "Baja California's Coastal Landscapes Revealed".

Initially we planned to return to in person meetings this month. Unfortunately, with the new COVID variants we've decided to push one more month and re-evaluate for the September meeting. Keep an eye on your emails!

Cheers,

Luke Weidman

2021 EXECUTIVE COMMITTEE

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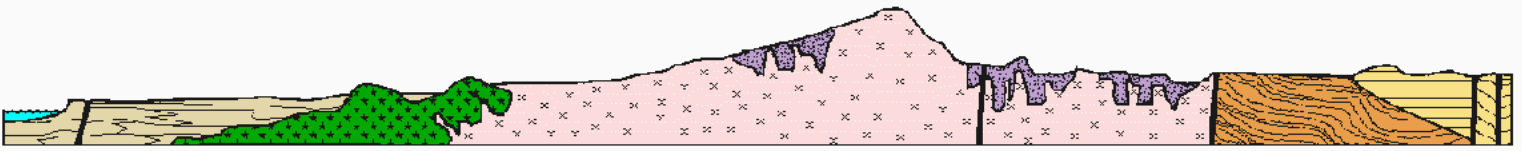
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SDAG RESEARCH TOOL

A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is available on our website. Entries are sorted by primary author, or chronologically by date of publication, starting with our first guidebook in 1972, out to Calico and the Mojave Desert in 2018, and finally up to the Temecula wine country for a return visit in 2020. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "oikocryst" for example, you can search for that keyword. This listing will be updated as new books are published.

Thanks to Greg Cranham and Hargis + Associates, Inc., for making this possible. See the links below:

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Please Submit Job Postings to:
secretary@sandiegogeologists.org

For Updated Job Postings, please Visit:
<http://www.sandiegogeologists.org/Jobs.html>

JOB OPPORTUNITY

Environmental and Ocean Sciences Laboratory Technician I

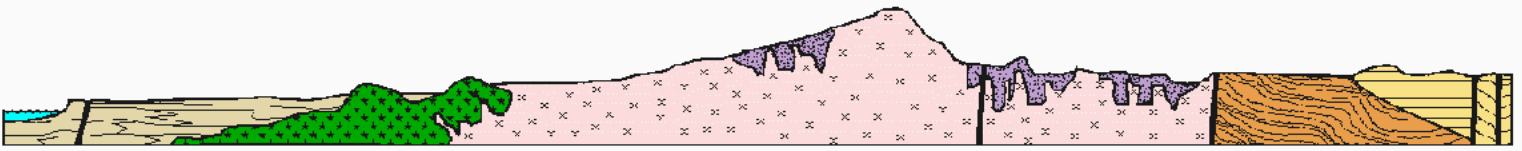
Join a team of 3 staff and over 12 faculty working in the University of San Diego Department of Environmental and Ocean Sciences. On the top of a scenic mesa with breathtaking views of the bay and the ocean, the department offers both field- and laboratory-intensive courses and student-centered engagement in laboratory and field-based marine and environmental research. We seek a laboratory technician to provide:

- general support of teaching labs and student-faculty research,
- laboratory equipment operation, maintenance and training, and
- environmental field equipment and field sampling support and training.

Minimum experience includes a bachelor's degree in natural sciences and one year of related experience. (Up to 23.97/hr.)

Details can be found [here](#).

The University of San Diego offers a very competitive benefits package, to include medical, dental, vision, a retirement contribution given to you by the University (with a three-year vesting period), and access to on-campus Fitness Centers.



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JOB OPPORTUNITY

Hydrographic Instrument Technician-21380307

The County of San Diego is currently accepting online job applications for Hydrographic Instrument Technician, to fill a vacancy in the Department of Public Works. Additional information can be found on the County's [HERE](#) Hydrographic Instrument Technicians operate, calibrate, repair, fabricate, and service a variety of rainfall, stream-flow, and other hydrological monitoring and sampling instruments, equipment and component parts; and to perform related work as required.

Apply on line or contact:

Tyler Rodenbaugh

San Diego County Flood Control District

Associate Meteorologist

Mobile: (619) 871-4546

tyler.heckstall-rodenbaugh@sdcounty.ca.gov

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How do I select a charitable organization to support when shopping on AmazonSmile?

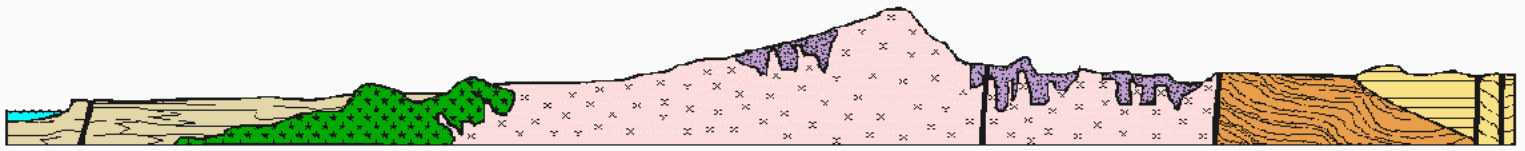
On your first visit to AmazonSmile smile.amazon.com, you need to select a charitable organization to receive donations from eligible purchases before you begin shopping. Please select the San Diego Geological Society. Amazon will remember your selection, and then every eligible purchase you make at smile.amazon.com will result in a donation to SDGS (SDAG).

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BAJA CALIFORNIA'S COASTAL LANDSCAPES REVEALED

EXCURSIONS IN GEOLOGIC TIME AND CLIMATE CHANGE

MARKES E. JOHNSON

Hikes through the wild coastal landscapes of Mexico's Baja California

Baja California is an improbably long and narrow peninsula. It thrusts out like a spear, parting the Mexican mainland from the Pacific Ocean. In his third installment on the Gulf of California's coastal setting, expert geologist and guide Markes E. Johnson reveals a previously unexplored side to the region's five-million-year story beyond the fossil coral reefs, clam banks, and prolific beds of coralline algae vividly described in his earlier books. Through a dozen new excursions, in *Baja California's Coastal Landscapes Revealed*, Johnson returns to these yet-wild shores to share his gradual recognition of another side to the region.

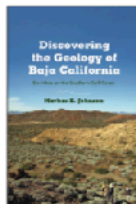
Johnson reveals a geologic history that is outside the temporal framework of a human lifetime and scored by violent storms. We see how hurricanes have shaped coastal landscapes all along the peninsula's inner coast, a fascinating story only possible by disassembling the rocks that on first appraisal seem incomprehensible.

Looking closely, Johnson shows us how geology not only helps us look backward but also forward toward an uncertain future. The landscape Johnson describes may be apart from the rest of Mexico, but his expert eye reveals how it is influenced by the unfolding drama of Planet Earth's global warming.

ARIZONA AND THE SOUTHWEST ENVIRONMENT
November

296 pp.
6 x 9
66 b&w illustrations, 10 maps, 16 color photographs
Paperback
978-0-8165-4252-9 / \$22.95 T
Electronic edition available

ALSO AVAILABLE



MARKES E. JOHNSON is the Charles L. MacMillan Professor of Natural Science, Emeritus, at Williams College, where he taught historical geology, paleontology, and stratigraphy in the Geosciences Department for thirty-five years.

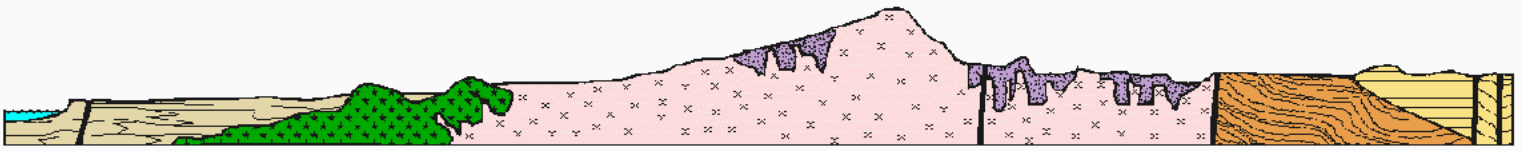
"Johnson takes a mishmash of rocks and uses them to reveal the workings of climatic and geologic forces over millennia—from indecipherable at the outset, to a pattern-filled natural history lesson that will have you plotting a trip to Baja by the final pages."

—Benjamin T. Wilder, Director of the Desert Laboratory on Tumamoc Hill

"An outstanding and long-awaited field guide as the third part of the author's trilogy on Baja California's fascinating geological history and landforms that far too often are overlooked by travelers and residents alike. Here is much more than just a rockhound's guide. It is a small compendium of natural history in the finest sense. A good entry into the large technical literature and research now going on for the Baja Peninsula and the legendary Sea of Cortez."

—Bill Burley, biologist

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