



# SAN DIEGO ASSOCIATION OF GEOLOGISTS

[www.sandiegogeologists.org](http://www.sandiegogeologists.org)

## SDAG MEETING ANNOUNCEMENT

[WEDNESDAY, November 16<sup>TH</sup>, 2011](#)

**Rough-Hewn Land, the Geologic Evolution of the West – A Trans-Cordilleran  
Field Trip from California to the Rocky Mountains**

*Presented by*

**Keith Meldahl, Mira Costa College**

**Where:** **Hilton Garden Inn (Exit Palomar Airport Road)**  
6450 Carlsbad Blvd  
Carlsbad, CA 92011  
(760) 476-4003



**When:** 5:30 pm – Social Hour  
6:30 pm – Dinner  
7:15 pm – Program

**Dinner:** Sautéed Chicken Piccata, (Vegetarian) Portobello Napolean Vegetable Stack  
Beverage station. Cash bar.

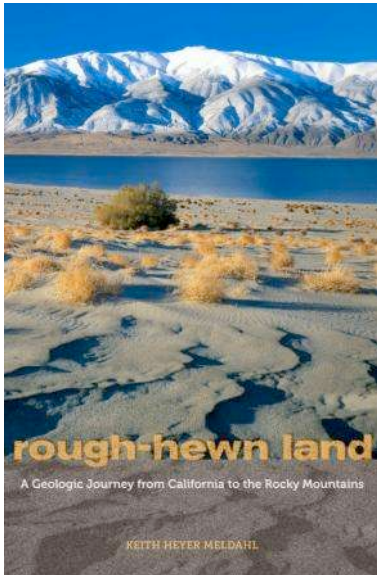
**Cost:** \$37 per person, \$5 discount for members, STUDENTS: \$22. Add \$5 if you did not make a reservation

**Reservations:** Try to make your reservation online at [www.sandiegogeologists.org](http://www.sandiegogeologists.org) **no later than noon, Monday, November 14<sup>th</sup>**. **Note reservations are always preferred over walk-ins.**

## **SPEAKER ABSTRACT**

### ROUGH-HEWN LAND, THE GEOLOGIC EVOLUTION OF THE WEST – A TRANS-CORDILLERAN FIELD TRIP FROM CALIFORNIA TO THE ROCKY MOUNTAINS

*Prof. Keith Meldahl, Mira Costa College.*



Some of the most intriguing and spectacular geology on Earth occurs in the American West. My new book, *Rough-Hewn Land*, explores the geologic evolution of the West by taking the reader on a trans-Cordilleran field trip from California to the Rocky Mountains. In this talk, we'll hit the road to explore the geologic story of the West during Mesozoic and Cenozoic time. During the last 200 million years, North America, migrating west as the Atlantic Ocean opened, collided with or overrode several oceanic plates that once floored parts of the ancient Pacific Ocean basin. One of these was the Farallon Plate—the driver of many of the tectonic events that shaped the West during this time. We'll visit outcrops that reveal four big developments that happened in the West as a result: 1) Multiple terranes collided with continent's leading edge to assemble the west coast and plant lode gold in California. 2) Mountains sprouted in an eastward-migrating wave to culminate in the uplift of the Rockies, which were subsequently buried, and then exhumed. 3) Vast quantities of subduction-generated magma rose up to spew volcanic fire across the landscape while seeding the

deep crust with precious metals. 4) The tectonic system evolved from compression/subduction-dominated to extension-dominated to produce the Basin and Range Province and the Great Basin, where active seismicity and GPS measurements demonstrate incipient continental rifting.

## **SPEAKER BIO**

### SPEAKER: KEITH MELDAHL

Keith is a professor of geology and oceanography at Mira Costa College. He is the author of *Hard Road West: History and Geology along the Gold Rush Trail*. When he's not teaching, he spends much of his time rambling across the West in search of geology, beer, and great campsites, not necessarily in that order.

## 2011/2012 SDAG MEETING SCHEDULE – Mark your Calendars!

Meetings are usually on the 3<sup>rd</sup> Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

December 14, 2011	<b>Tom Demere - San Diego Paleontology</b>
January 18, 2012	<b>Dr. Barry Keller - Chilean Earthquake/Inka Road</b>
February 15, 2012	<b>Mike Buga - San Jacinto Fault Work Update - Clark Lake and Hog Lake</b>

### 2011 EXECUTIVE COMMITTEE

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**WEBMASTER** – Carolyn Glockhoff; *Caro-Lion Enterprises*, Ph: (858) 549-3396; [carolyn@caro-lion.com](mailto:carolyn@caro-lion.com)

### PRESIDENTS CORNER, NOVEMBER 2011

For those of us who joined SDAG for the 2011 field trip this past weekend, what a pleasure it was to see the Picacho area and listen to Dr. Gary Girty discussing various facets of the past 10 years of work he and his students have been doing in this area. We were able to see some very well exposed faults and gain an understanding of the major rock units juxtaposed by these faults. Watching some of our geologists trying to wrap their heads around this complex structure of this area was interesting if not comical. Speaking for myself, I believe my head nearly exploded at least three times during Saturday.

If Picacho wasn't enough, we also had the pleasure and privilege of touring the Mesquite complex on Sunday. For the roughly half of the group who toured the future landfill, seeing a landfill cell constructed but still exposed really was quite interesting, not to mention seeing the extensive rail yard facility associated with the landfill, which could be accepting solid waste sometime in 2014. The highlight of this stop, however, was touring the active Mesquite Gold Mine! For those on the tour, words don't describe the sights we were privileged to see. For the rest of you, let's just say Mesquite goes big: big haul trucks and excavators, big (really BIG!) excavations, BIG mine!

Thanks to Michelle Ochs and Don Wagstaff for accommodating our group at Mesquite. Special thanks to Dr. Girty for devoting Saturday to our group and for fielding countless questions. And of course thanks to Todd for all his hard work organizing the trip. It was great seeing his family on the trip also. For all of you who helped in any way by bringing items for the trip or just being available to help with all manner of situations, big thanks.

The November meeting is now just around the corner. Keith Meldahl will be presenting, "Rough-Hewn Land: A Geologic Journey from California to the Rocky Mountains." That meeting will be November 16<sup>th</sup> at Hilton Garden Inn in Carlsbad. I will be out of town with my wife Cindy that week so I will miss you all at the November meeting. I'll look forward to a full report when I return.

Finally, I have very good news for SDAG. Our December meeting, planned for December 14<sup>th</sup>, will be back at the San Diego Natural History Museum! Dr. Tom Demere has assisted us in putting together a program that allows us to be back at the museum for the first time in several years (I think the last time we were there was the first year I was an officer with SDAG). Please keep December 14<sup>th</sup> free and be sure to pass this good news on to all your geology colleagues. We hope to pack the house that evening!

Chuck Houser



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- David and Jan Steller ("two-fer" - thanks!)
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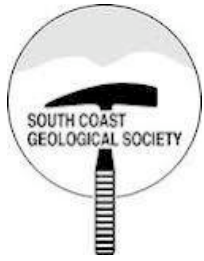
## ANNOUNCEMENTS:

**Plan to share your research with a presentation or a poster  
2012 Desert Symposium**

**Presentation Theme:** Life in the Desert: Adaptations to Environmental Extremes

**Field Trip Theme:** Search for the Pliocene: Southern Exposures

**Desert Studies Center, Field Trip April 21- 23, 2012 Zzyzx, California** Additional information to follow. Please forward this information to other interested individuals and invite them to send their email addresses to [wpresch@fullerton.edu](mailto:wpresch@fullerton.edu). California State University, Fullerton



## South Coast Geological Society Poster Session - Call for Presenters

The South Coast Geological Society will be holding our annual poster session on Monday, December 5th at our regular meeting location in Santa Ana, the Doubletree Club. All are encouraged to create a poster to share with the group. Posters in the past have focused on proposed work, completed research and sometimes good old fashioned show and tell!

Please submit your poster title and a brief abstract (3-5 sentences) by November 1 so that we can create a program for our December newsletter. For those that have not participated before, we find that this session is good practice for those with thesis projects that are almost done, a great way to get feedback from a variety of professionals, and a good opportunity to see some of what's going on in the "real world." The information for your poster can be sent to Jeff Miller [jmiller@e2managetech.com](mailto:jmiller@e2managetech.com). We anticipate awarding a few prizes based on member polling.

### 2011 SDAG FIELD TRIP "THANK YOU"

I wanted to give thanks to these people for making this years' trip a success: Greg Cranham, for bringing in outstanding catering by Brian Papurello and local craft beer by Alpine Beer Company, Monte and Diane Murbach for snacks, vino, and general good cheer, Dave Bloom for lining up the cool souvenir trip flashlights and designing the sign-up forms, Chuck Houser for his idea and initial contact with the Mesquite Mine/Regional Landfill folks, Carole Ziegler and Bill Elliott for helpful reviews of the Ogilby Road log, and of course Dr. Gary Girty for giving up his valuable time preparing and leading Saturday's portion of the trip. I would also like to thank Steve and Maria Zigan and Dr. John Fontanesi for their generous field trip student sponsor donations, Rangers Sue Barney and Robin Greene of the Picacho State Recreation Area, Mesquite Mine chief geologist Don Wagstaff, Michele Ochs of the Mesquite Regional Landfill.... I hope I didn't miss anyone, thanks for the advice! Last but not least, I want to thank my wife Izzy for her support, encouragement, and above all, patience for the past year while I was putting this together! ...Todd Wirths



Left: Come an' get it! Right: Annabelle and 23 Ma Quechan Volcanics! (photos by Izzy Tihanyi)



# *Eat, Drink, and be Literary* **Sunbelt's 27th Annual**

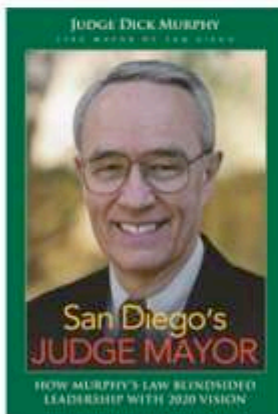
## **Holiday Party**

**Thursday, December 8, 2011**

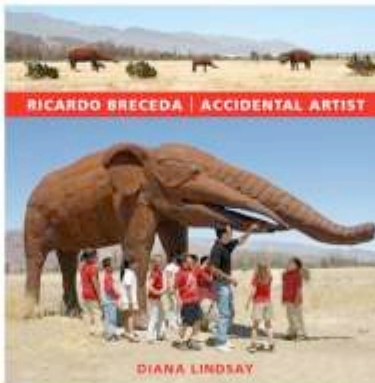
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Anza-Borrego Desert State Park Visitor Center , 200 Palm Canyon Drive , Borrego Springs **08:00 AM to 4:00 PM on 11 November 2011** . Help discover, protect and preserve our prehistoric natural resources. For further information call Dr. Lyndon Murray , District Paleontologist at 760-767-4974 And visit our website at [www.anzaborregopaleo.org](http://www.anzaborregopaleo.org)

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Qualifications Summary and Objective: I have 14 years experience directing surface water quality monitoring programs with a proven record of excelling in monitoring plan implementation, quality control, public notification and continuous improvement in operational effectiveness and efficiency. I have built and maintained relationships with key staff in academia, industry, and all levels of government in San Diego and California. I have a widely applicable skill set which includes: analytical thinking, communication and writing skills, data analysis and management, inter and intra- agency project coordination, and staff supervision and training. My objective is to obtain a career position with an industry leader where I can contribute my skills to build the success of my employer as well grow professionally. Detailed work experience, education and more at [www.linkedin.com/in/cbclifton2010](http://www.linkedin.com/in/cbclifton2010). Email [cbc2006@cox.net](mailto:cbc2006@cox.net) or 619-964-1776. Contact: Clay Clifton

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"ENGINEERING GEOLOGIST- MS in Geology, 13 years of the industry experience (CA, NY/NJ, overseas), California P.G., proficient in methods of subsurface exploration and geotechnical hazard evaluations, geophysical surveys, construction quality control, geotechnical engineering analyses, special interest in earthquake-hazard and seismic design related applications, strong problem solving and organizational skills, enjoy being challenged. I worked in San Diego in 1998-2004 and would love to move back. Detailed resume available upon request. Anna Fyodorova, [Afyodorova103@gmail.com](mailto:Afyodorova103@gmail.com) ."

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## **JOB OPENINGS!**

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## Parting Lineation...

THE WOODWARDIAN PROFESSOR - Adam Sedgwick (1785-1873) was appointed Woodwardian professor of geology, University of Cambridge, in 1818...

### ANNOUNCEMENT OF A FIELD TRIP

By Professor Sedgwick

The WOODWARDIAN PROFESSOR invites his CLASS to meet him on horseback at the Barnwell Gravel Pits, on Tuesday, April 7, precisely at Ten O'Clock. He will halt at Quy Hill, quarter before Eleven: at Swaffham Hill and Reach, Quarter before Twelve; and at the Stone Pit, Upware, Quarter before One. From the last mentioned place he proposes to proceed to the Pit of Green Sand and Kimmeridge Clay, near Ely; after which he intends to return by the Turnpike Road.

Trinity College, Cambridge  
April 4, 1835

Sedgwick Museum, University of Cambridge

Reprinted from "A Geological Miscellany", compilation by G.Y. Craig and E.J. Jones.