

CGS Monthly Meeting

Tuesday February 19, 2008

(NEW LOCATION)

Biedermann Hall at Sacred Heart Church - 10800 Henderson Road, Ventura, CA 93004

Paleotectonic Reconstruction of Southern California

by:

Raymond V. Ingersoll
Department of Earth and Space Sciences
University of California, Los Angeles

Abstract: Southern California is a critical component in paleotectonic models for: 1) the evolution of the USA-Mexico Cordillera; 2) the interaction of continental and oceanic plates; and 3) relations between subduction and transform processes during the Mesozoic and Cenozoic. Detailed palinspastic reconstruction of both offshore and onshore components of the diverse and complex settings of southern California is essential in order to test paleotectonic models for the evolution of the broader region. The ideal way to reconstruct southern California is to utilize neotectonic data to retrodeform faults active since 1 Ma, then 2 Ma, 3 Ma, etc. Uncertainty increases with age; therefore, kinematic extrapolation for as much as a million years is problematic and neotectonic constraints are less useful with age. Classical offset pairs along strike-slip faults constrain movement along many faults, but others are unconstrained. Offsets of sedimentary strata from their source regions (e.g., based on conglomerate and sandstone petrofacies, and detrital-zircon data) are additional constraints.

MEETING INFO: 3RD TUESDAY OF EVERY MONTH (DARK IN JULY & AUGUST)

BIEDERMANN HALL AT SACRED HEART CHURCH

10800 Henderson Road Ventura, CA 93004

(See the MAP at the end of this Newsletter for directions.)

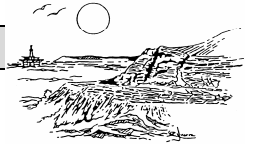
Reservation Deadline: 4:00 PM on THURSDAY before the meeting.

E-mail Reservations to: Christine White at cwhite@dcorllc.com or visit the CGS website

*****Please specify your dinner choice: Tri-Tip, BBQ Chicken or Vegetarian Lasagna,**

Social Happy Hour - 6:00 p.m., Dinner - 7:00 p.m., Speaker - 8:00 p.m.

\$18 - With Reservation, \$25 - Without Reservation, \$ 10 - For Students and K-12 Teachers



Paleoenvironmental reconstructions define consanguineous facies of proximal-nonmarine to fan-delta to distal-deep-marine dispersal systems, which must be reconnected during successful retrodeformation. Also, paleotectonic systems, such as subduction complexes, forearcs and magmatic arcs, must be successfully reconstructed. Each stage of retrodeformation and paleogeographic reconstruction must satisfy all known data sets in order to be successful. Therefore, a probabilistic iterative process is most likely to result in reproducible models for all time frames. Only once such models are developed and tested against many data sets will paleotectonic models involving southern California be on a firm foundation.

Biography: Raymond V. Ingersoll is Professor of Geology in the Department of Earth and Space Sciences at UCLA, where he has been a faculty member since 1982. He was on the faculty of the University of New Mexico (1976-1982), received MS (1974) and PhD (1976) from Stanford University, and AB (1969) from Harvard University. His specialized interest is in the use of sand and sandstone in provenance studies; his broader interest is in the tectonics of sedimentary basins and regional paleotectonics. His primary research areas have been in the late Mesozoic forearc of northern and central California, the Cenozoic Rio Grande rift of northern New Mexico and southern Colorado, and the Cenozoic basins of southern California.

RESERVATIONS: E-mail Christine White at cwhite@dcorllc.com, phone 805-535-2074 or visit the CGS website by the Thursday before the meeting at 4 pm. Please include name and menu choice (Tri Tip, Chicken, or Vegetarian Lasagna) for each person attending. If you don't make a reservation, it's possible there will not be a meal available for you the day of the meeting.

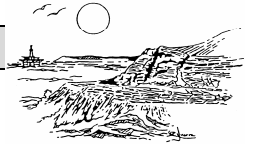
MARK YOUR CALENDAR:

• Upcoming CGS meetings:

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|-----------------|--|
| March 18, 2008: | Joseph (Manny) Saenz - "A Mass Movement (Submarine Landslide) Model for the Santa Maria and Santa Lucia Basins, Offshore California" |
| April 15, 2008: | TBA |

UPCOMING EVENTS:

- Santa Barbara Geologists Monthly Luncheon: February 13, 2008 at 11:00 am for Social Hour, 12:00 noon for Lunch. The title of talk is to be announced. Contact Laura at 805-684-1638 by 12:00 Noon on the Wednesday before the meeting to RSVP.
- SPE Western Regional and Pacific Section AAPG Joint Meeting: "Adding Reserves Through Collaboration, Innovation and Technology Transfer" March 31-April 2, 2008 in Bakersfield, CA. Contact Allen Waggoner at jwaggnr@wziinc.com or www.PSAAPG.org for more information.



- 2008 Desert Symposium Field Trip: April 19-21, 2008, "Development of the Colorado River and its entry into the Salton Trough." The field trip will explore geographic extent of the Bouse Formation and contrast fresh water deposits with deposits containing marine fossils. Examine sediments at Anza-Borrego that indicate when the Colorado River entered the Salton Trough. Drive from eastern Mojave Desert pinon-juniper plateaus to the Sonoran vegetation of the Colorado Desert. Contact wpresch@fullerton.edu more information.

- The Statewide Golden Bear Gem & Mineral Show: 69th Annual Show of the California Federation of Mineralogical Societies. Dates & Times: Fri., June 27 - Sun., June 29, 2008 (10 AM - 5 PM each day) Admission: \$5 adults, \$4 Seniors (60+), \$3 students, Kids under 12 free with paid adult. Location: Seaside Park, Ventura County Fairgrounds, 10 W. Harbor Blvd, Ventura. Contact Person: Bural LaRue, Show Chair, (909) 874-5664, bplarue@earthlink.net or www.cfmsinc.org. Features: over 100 gem, mineral, rock, fossil & jewelry exhibits, including exhibits entered into statewide competition; 50 dealers; demonstrations of jewelry making; informative speakers; door prizes & silent auctions; kids activities; and the official State Gemstone, State Fossil, State Rock, and State Mineral on display. This is informally known as "the Super Bowl" of California gem shows!

- The 2009 Pacific Section AAPG Convention will be hosted by the Coast Geological Society May 3 - 7, 2009 at the Ventura Marriott. Tom Hopps will serve as the Convention Chairman and Gene Fritsche will be the Technical Chairman.

- Upcoming Events at the California Oil Museum (Contact Debbie Bereki at 805-933-0096 for more information):
 1. THAR SHE BLOWS!!! A HOT SPOT MAKING VOLCANIC ISLANDS by Dr. Robert Gray, February 28, 2008. Enjoy this talk and dinner at the California Oil Museum.

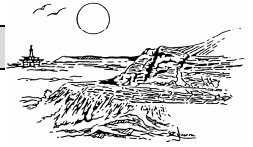
 2. Could you (as Jurassic Park would lead you to believe) successfully transplant terrestrial dinosaurs into the present day? MAMMALS and NON-FLYING DINOSAURS: A tale of ecosystem evolution in the Mesozoic and Cenozoic by Dr. Bruce Tiffney, April 10, 2008. Enjoy this talk and dinner at the California Oil Museum.

ANNOUNCEMENTS:

- Layne Geosciences, a division of *Layne Christensen Company*, the nation's largest groundwater resource development contractor, is seeking candidates for a ***Senior Level Hydrogeologist*** position. The position will be based in Fontana, CA facility. For more information, please contact Mr. Tony Morgan, Manager-West Coast Operations at 909-390-2833 or tmorgan@laynechristensen.com.

- The Education Program at the California Oil Museum needs a volunteer with a wood shop to build simple classroom materials. Volunteers are also needed to be tour guides for visiting students. Donations for the Education Program are always appreciated. Please contact Debbie Bereki, 805-933-0096, or dbereki@ci.santa-paula.ca.us for more information.

CGS MEMBERSHIP: CGS membership is through Pacific Section AAPG. Be sure to select **Coast Geological Society** as your local affiliated society. To join CGS, please go to: www.psaapg.org/member.html



CGS OFFICERS DIRECTORY:

President: **Bob Ballog**, Hueneme HS 805-498-6294/805-402-1173, president@coastgeologicalsociety.org

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Secretary: **Christine White**, DCOR, LLC 805-535-2074, secretary@coastgeologicalsociety.org

NOTICES

1. *No-Cost* Employment Announcements (Help Wanted & Job Wanted) are available on our website! Also, business card ads and employment ads available in the newsletter! Contact secretary@coastgeologicalsociety.org
2. If you forward the email notice to another party, cc: secretary@coastgeologicalsociety.org in the email, we will put your party on the monthly notification list. There is no cost to receive CGS email notifications.
3. Buy your raffle tickets! Money generated goes toward scholarships, field trips, etc., to promote the advancement of Geosciences. Check the CGS supported activities on our website (3 Tickets for \$1).
4. Always needed: **Sponsors for our meetings!** Sponsors get a beautiful colored banner hung at the meeting, and the opportunity to distribute their literature and introduce their businesses, as well as the satisfaction of having supported a great organization! Sponsorships are \$300 per meeting and may be shared between two individual sources. Contact vicepresident@coastgeologicalsociety.org for info.

MEETING PLACE: MAP AND DRIVING DIRECTIONS

Meetings are held at the Sacred Heart Church, Biedermann Hall, 10800 Henderson Road, Ventura, CA 93004.

The location is off Hwy 126 at the Wells Road/Route 118 Exit. Click on the map below for a more detailed view and directions.

