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Deadline for submittals to the February newsletter: January 19

THIS MONTH'S MEETING

Joint meeting with the South Coast Geological Society

January 9, 1996

Amino-Stratigraphic Correlations of Surface and Subsurface Marine Pleistocene Sediments in the Western Los Angeles Basin

presented by

Dr. Ken Lajoie

Reservations must be made by Friday, January 5!
Call GeoSoils at (818) 785-2158
(leave your name and the number in your party)

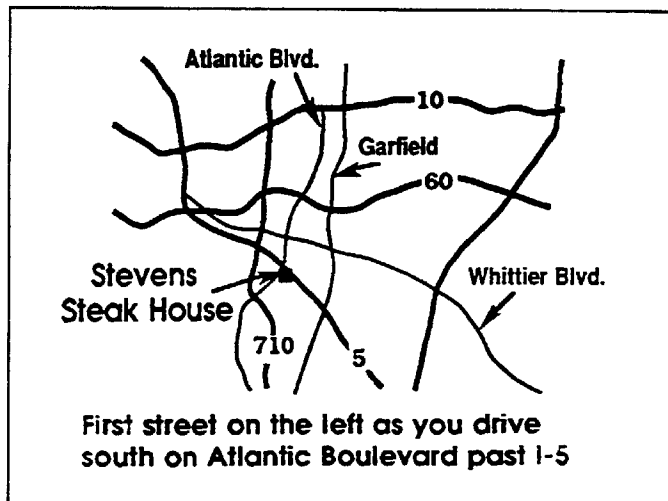
Location:

Stevens' Steak House
5332 Stevens Place
Commerce

Cost: \$20.00
(\$10.00 for full-time students with valid I.D.)

Social Hour: 6:00 pm
Dinner: 7:00 pm
Meeting: 8:00 pm

Map to Meeting



First street on the left as you drive south on Atlantic Boulevard past I-5

JANUARY PROGRAM

Amino-Stratigraphic Correlations of Surface and Subsurface Marine Pleistocene Sediments in the Western Los Angeles Basin

Dr. Ken Lajoie*

U.S. Geological Survey
345 Middlefield Road, MS-977, Menlo Park, CA 94025-3591

Amino-acid data from 33 genera of fossil mollusks define seven amino-stratigraphic zones within the surface and subsurface marine Pleistocene of the western Los Angeles basin. These time-correlative zones range in age from >800ka to 85ka. Amino-acid data correlate litho-stratigraphic units throughout the basin with the amino-zones and with each other. The San Pedro sand (SPS) and the Timms Point silt (TPS) are the proximal and distal facies of a southwestward prograding delta (of the ancestral Los Angeles and San Gabriel Rivers) that connected the Palos Verdes headland to the mainland at 320ka. Sediments mapped as SPS on Deadman Island are 120ka, those along the northeast flank of the Palos Verdes Hills are 570-320ka and those beneath the Torrance plain are >800ka. Geomorphic, paleontologic and amino-acid data indicate sediments mapped as Palos Verdes sand (PVS) on the lowest of the thirteen marine terraces cut into the Palos Verdes Hills actually lie on five terraces ranging in age from 320ka to 85ka. Sediments originally mapped as PVS in southeast Torrance plain are 320ka, those in the Long Beach-Signal Hill area are 220ka and those in San Pedro are 120ka, 105ka, and 85ka. Clearly, some of the original stratigraphic correlations in the western Los Angeles basin are incorrect. Successively higher marine terraces on the Palos Verdes Hills correlate with successively deeper sediments in the western basin. Time lines correlating the uplifted terraces with their

offshore facies cross in the San Pedro area. Angular unconformities separating stratigraphic units in this area reflect Pleistocene sea-level fluctuations and gradual tilting, not episodic tectonic movements, as originally believed. The sediments were deposited during glacio-eustatic highstands and the unconformities were eroded during lowstands.

Biographical Information



Dr. Lajoie received his BA in Geology in 1963, and his PhD in 1968, both from U.C. Berkeley. His dissertation was entitled: "Quaternary stratigraphy and geologic history - Mono Basin, California." From 1968 to 1970, he did post-doctoral work at Lamont-Doherty Geophysical Observatory studying K/Ar dating of lake deposits. Since 1970, Dr. Lajoie has been with the U.S. Geological Survey working on Quaternary geology, geologic hazards, coastal tectonics, tephrochronology, volcanology, amino-acid dating, quaternary geology and tectonics of the Los Angeles basin, and surface ruptures resulting of the 1992 Landers earthquake. ϕ

* Abstract co-authored by Dan Ponti and Charles Powell, USGS.

CHAIRMAN'S COLUMN

by Joe Cota

Don't forget to ask your clients to write letters to the Sunset Review Board!

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IN MEMORIAM

RICHARD B. SAUL, 1921 - 1995

It is with the deepest regret and sadness that I report the passing of Richard Brant Saul on December 18 at the age of 74. I had known Dick for many years before I had actually met him. Through dozens of projects and quite a few years I had referred to his many geological field studies published throughout his career with the California Division of Mines and Geology. Most of his assignments were aimed at providing detailed geologic maps of large natural areas of increasing urbanization for regional planning purposes and public safety. His many studies included "Geology of the Mint Canyon Quadrangle," "Geology of the Oat Mountain Quadrangle," "Geology of the Southeast Slope of the Santa Susana Mountains and Geologic Effects of the San Fernando Earthquake" (*in CDMG Bulletin 196 - San Fernando Earthquake*), and "Geology of the West Central Part of the Mount Wilson Quadrangle." Some of you might even remember that he led an AEG field trip along the San Gabriel fault around 1970. He was also a field trip leader of AEG's Western Soledad Basin field trip in 1990.

I had called Dick a couple of times at his office to ask questions, but I finally met him around the time of his retirement from the CDMG in 1989. He was at the former USGS counter in Los Angeles with his daughter-in-law, Lori, looking through flood maps for the siting of a new home that she and Dick's son, Brant, are currently building in the Mojave. He told me that he soon would be retiring. What? A geologist without anything to do? With a little arm twisting, Dick was soon busy consulting with GeoSoils on various projects along the Mission Wells, San Fernando, and Santa Susana fault zones. He even did some reconnaissance mapping and thin section analyses of a titanium prospect in Soledad Canyon. Dick was really good with thin sections.

One day we went to a proposed radio tower site on Mt. Harvard (just below Mt. Wilson) and ended up mapping down the old Toll Road to Pasadena! On another occasion we were working on a groundwater problem in Santa Clarita and took off the rest of the day so that he could show me around half of the Mint Canyon Quadrangle. Dick was also quite a gold panner. There's gold in Acton. Believe it.

Dick approached his work in a totally different way than most. His first objective was to look at clasts and then determine where the source area was. He found a spear point

in Mission Hills one day, and his main concern wasn't that it was a rare Chumash relic but that it was fashioned from a chalcedony nodule that was surely transported from the Vasquez Formation volcanic unit near Escondido Canyon Road. Dick could tell when whole mountain ranges had risen by the composition of sediment belts about the foothills.

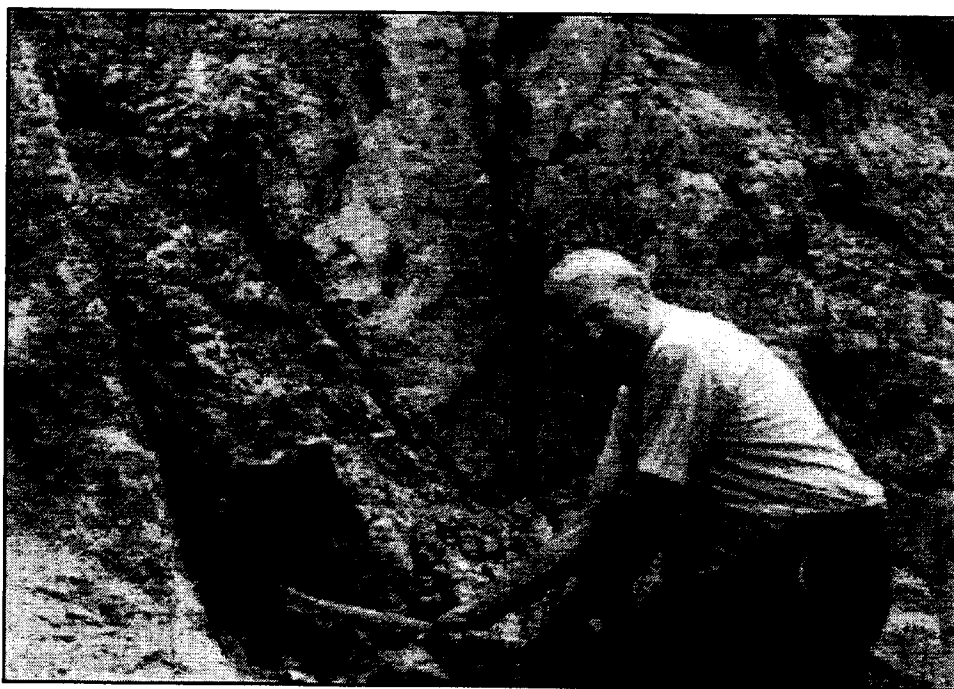
Dick is survived by his wife, Louella, who has been a prominent paleontologist throughout her

career with UCLA and the Los Angeles County Museum of Natural History. Dick has told me on several occasions that he was so lucky to have been married to such a beautiful woman. Dick and Louella's youngest son Rob, resides in Santa Cruz. Brant and his wife, Lori, reside in North Hollywood (until their desert home is completed). Elizabeth, their foster daughter, lives with her husband in Seaside CA near Monterey.

We will surely miss Dick, but a part of him will always be nearby — on our bookshelves. May his spirit always watch over Oat Mountain.

φ

— Joseph Cota



Dick Saul at an exposure of the Tick Canyon fault in 1992

ARTICLE

THE PENDING DEATH OF GEOLOGISTS' LICENSURE IN CALIFORNIA

By Robert E. Tepel

A rather negative tone prevailed at the November 28 hearings in Sacramento on the future (or non-future) of the State Board of Registration for Geologists and Geophysicists ("Board" or "Geology Board" hereafter). The only hopeful sign I saw was the aside statement by one Senator that the Joint Legislative Committee on Sunset Review wanted to hit us with a 2x4 to get our attention. (Thanks, we needed that).

The Sunset Review poses two challenges: Should licensure of the professions of geology and geophysics continue, and if yes, should it continue with the present semi-autonomous board style or be continued as a bureau in the Department of Consumer Affairs?

If licensure is to survive in a meaningful way, it will take concerted effort by those of us in the profession who are concerned about the impact of our practice on the public.

THE BOARD IS DEAD

SB 2036, the Sunset Law, specified that the Geology Board (among others) shall terminate unless specific legislation is passed and signed to continue it. Otherwise, the Board dies and its functions are transferred to the Department of Consumer Affairs staff. There it will await a fate that is unclear but seems likely to be a less energetic administration of the licensure law than we have ever seen before. (If you want to be licensed by true bureaucrats, just do nothing).

While some California geologists have been disappointed by the performance (or lack thereof) of the California Board in its early decades, many have also been pleased with the progress made by the Board in the last few years. If the Board is continued, it is likely that the entire licensure law will be re-written, and that the Board will face another sunset review in four years. Re-writing the licensure law will enable those who have criticized the Board's lack-luster performance to have input in creating a law that will permit (or require!) the Board to do everything its critics want it to do.

By the end of December, the recommended fate of the Geology Board will be decided by the Joint Legislative Sunset Review Committee, and sent to the Department of Consumer Affairs. In January or early February, bills will be introduced in the legislature to implement these recommendations. AEG's legislative liaison team will be successful in convincing the Joint Committee to recommend continuation of the Geology Board. (Four more years, that's all we ask for the Board to prove itself).

WHAT YOU CAN DO TO HELP RESURRECT THE BOARD

AEG members are welcome to their own opinions, convictions, and expressions regarding professional matters such as licensure. I hope that the optimists who think licensure can be made to work

to the benefit of the public, and that the present Geology Board is headed in the right direction, will take some time in December to make an appointment to visit the District office of their Assembly Member and State Senator.

WRITE/FAX THE JOINT COMMITTEE MEMBERS

You can write or fax your opinions on continuation of the Geology Board to the Joint Committee members at their District offices while the Legislature is in recess in December (see list below). A copy should be faxed or mailed to the Legislator's Sacramento office because a) the District office might not copy the Sacramento office with your letter, and b) Sacramento staff are the ones who have the clout. Hint: one-page letters and faxes are read, longer ones are not.

VISIT YOUR LEGISLATOR'S DISTRICT OFFICE

Visit your own Assembly Member and State Senator in their District office while they are home for recess. You visit them to tell them, as a constituent and voter, that continuation of the Geology Board is coming up in the next session, you would like their support of continuation, and you want them to understand a little about the issues.

It doesn't have to be a hard sell, and probably shouldn't be a hard sell. Just let them meet a real geologist and see what we do. Whether your contact is in person or by letter or fax, introduce yourself as a member of the profession who has a real-world interest in the issues. Use your own ideas or customize the concepts below to your own situation. Or take them on a field trip!

Give examples of real-world project work you do that impacts the public: not only your immediate client, but also the users of the project and those who rely on its continuing safe function for generations to come. Hey, really, most of your "clients" (those who will benefit from your work) aren't even born yet. Mention that taxpayers have a big economic interest in disaster recovery (post-earthquake) costs and in contamination clean-up investigations: in many cases, the taxpayers pay the bill through state funds. For their money, the taxpayers should receive services from geologists with credentials and abilities verified by the licensure process. Billions of dollars are at stake.

Follow up the next day with a ONE-PAGE BULLET-LIST letter that summarizes your main points.

So, how do you find out who your Assembly member or State Senator is? See the "Government Officials" heading in the "Local Area Pages" section of the telephone directory. If you aren't sure what district you are in, call the likely office and give them your ZIP code; they will be glad to confirm.

DISTRICT OFFICES OF JOINT LEGISLATIVE SUNSET REVIEW COMMITTEE

ASSEMBLY

Name	District Office	Phone Number
Bruce Thompson	27555 Ynez Rd., #205 Temecula, CA 92592	909-699-1113 909-694-1039 FAX
Jackie Speier	220 S. Spruce St., #101 So. San Francisco, CA 94080	415-871-4100 415-871-4350 FAX
Jim Morrissey	930 W. 17th St., #C Santa Ana, CA 92706	714-285-0355 714-285-1301 FAX

SENATE

Name	District Office	Phone Number
Rubem Ayala	9620 Center Ave., #100 Rancho Cucamonga, CA 91730	909-466-6882 909-941-7219 FAX
Daniel Boatwright	1001 Galaxy Way, #201 Concord, CA 94520	510-689-1973 510-689-0618 FAX
K. Maurice Johannessen	410 Hempsted Dr., #200 Redding, CA 96002	916-224-4706 916-224-4794 FAX

STATE CAPITOL OFFICES OF JOINT LEGISLATIVE SUNSET REVIEW COMMITTEE

Address as follows: The Honorable _____
 Member of the _____ (Senate/Assembly)
 State Capitol, Room _____
 Sacramento, CA 95814

ASSEMBLY

Name	Room Number	Phone Number
Bruce Thompson	2179	916-445-1676
Jackie Speier	4140	916-445-8020
Jim Morrissey	3147	916-445-7333

SENATE

Name	Room Number	Phone Number
Rubem Ayala	5108	919-445-6868
Daniel Boatwright	3086	919-445-6083
K. Maurice Johannessen	2066	919-445-3353

The AEG Seismic Hazards Analysis short course has been revised....**DR. THOMAS ROCKWELL** will be speaking for two one-hour sessions on fault-specific parameters for significant southern California faults. Dr. Rockwell is with San Diego State University and has performed extensive neotectonic studies on many southern California faults. **DR. THOMAS HENYEY** is the Executive Director of the Southern California Earthquake Center and will discuss SCEC's role in seismic hazard analysis. Dr. Bernard Minster and Dr. Sally McGill will not be available to speak as originally planned.

*** WHAT'S SHAKING IN SOUTHERN CALIFORNIA? *
SEISMIC HAZARDS ANALYSIS - THE SEQUEL**

A One-Day Short Course Sponsored by the
Association of Engineering Geologists
Southern California Section



January 20, 1996 - 8am to 5pm
University of Southern California
Davidson Conference Center
3415 South Figueroa Street
Los Angeles, California

A one-day short course is scheduled for January 20, 1996, in the Davidson Conference Center at USC in Los Angeles. This short course supplements and expands upon the previous AEG Seismic Hazards Analysis short course held in 1994. Thomas Blake has expended great effort in obtaining several prominent experts to share their knowledge of the state-of-the-art of Seismic Hazards Analysis.

Dr. Robert Sewell will describe the mechanics of probabilistic seismic hazard modeling using the newly revised Version 3.0 of FRISKSP. Dr. Thomas Henyey will describe the role of the Southern California Earthquake Center and explain how it can be useful to professionals who perform seismic hazard modeling. Dr. Thomas Rockwell will present summaries of fault-specific parameters for several of the significant faults in southern California. Dr. Kenneth Campbell will discuss new strong-ground-motion attenuation relation developments and he will present some of the ground-motion lessons learned from recent blind-thrust earthquakes. John Kariotis will discuss the seismic-hazards-analysis needs of structural engineers and explain how seismic-hazards-analysis data are used for structural design.

This is a short course you shouldn't pass up! Continuing education units will be awarded to AEG members. The reasonable course fee (\$95 per participant) will include course handouts, lunch, and drinks/munchies during breaks. Plan to attend and **SIGN UP NOW!** Complete the attached registration form and return it with your check promptly. Advance registration is required by January 5, 1996, and will be confirmed by letter. If you have any questions, please call Sue Tanges at 619-442-8022.

* * * * *

REGISTRATION FORM - DUE BY JANUARY 5, 1996
Seismic Hazards Analysis - The Sequel
AEG Short Course, January 20, 1996

Name _____

Company _____

Address _____

City/ST/ZIP _____

Phone _____

Make check or money order payable to:
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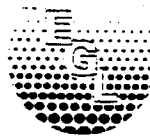
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Are you an AEG member? _____

SEE YOU JANUARY 20th!!!

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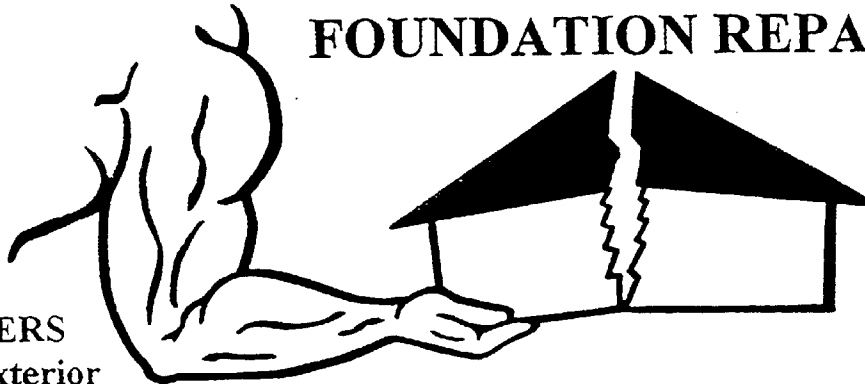
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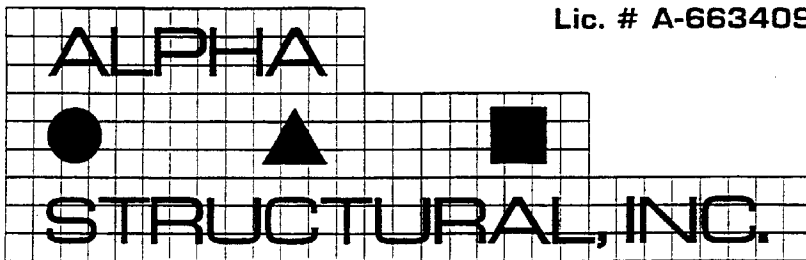
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