



**AEG - San Francisco Bay Area
&
ASCE - San Francisco Geo-Institute**



Announcing our February 2018 Meeting

AEG & ASCE-SFGI welcome the 2017/2018 Jahns Lecturer



Professor John Wakabayashi
California State University Fresno

**“Attempting to Bridge the
Growing Gap Between
Academic and Applied
Geology: A Personal Odyssey”**

MEETING DETAILS

Restaurant

Spenger's Fresh Fish Grotto
1919 Fourth St.
Berkeley, CA

[Map](#)

Date and Time

Tuesday, February 13, 2018
6:00 pm—Social Hour and Sign-in
6:45 pm—Dinner
7:45 pm—Presentation

Cost: \$50 Members & Spouses, \$60 Non-Members, \$20 Students

Menu: Choice of: Sliced Beef Medallions / Cedar Roasted Atlantic Salmon / Vegetarian Pasta Primavera

Reservations: Spaces are limited, RSVP in advance!
Please fill out the [online form](#) by **12 PM, Monday February 12, 2018.**

Driving Directions: Print turn-by-turn directions through [Google Maps](#)

Parking: Street parking in Berkeley is metered and free after 6pm. A large paid parking lot is available across the street from the restaurant.

Transit Options: Driving, exit I-80 at University Ave. Berkeley (2 blocks NE). Bus Lines 51B 80 81 802, stop at University and 4th St. (front). AMTRAK use Berkeley Station (1 block NE).

*Please RSVP in advance. Walk-ins are welcome, but not guaranteed. No shows will be charged.
See next page for abstract and speaker biography.



Abstract - A significant gap exists between academic geology, as represented by academic geoscience research and many academic programs, and applied geology. Few academic geologists have experience in the industry that employs most of their graduates. This divide also hinders the professional application of potentially relevant findings in basic geoscience research. This gap did not exist at the

beginning of Dick Jahns' career but it emerged in spite of his best efforts and has widened considerably since his passing. In my own career I have devoted some effort to bridging the academic-professional gap. I will present some examples from both my professional and academic experience. These include: Correcting interpretations resulting from vertical exaggeration in cross sections, application of structural geologic principles to paleoseismic trench interpretations and dam abutment deformation, migrating step-overs along strike-slip faults and their importance in seismic hazard assessment and paleoseismology (may have implications for causative faults of Napa earthquake), metals of environmental concern versus ambient concentrations of such metals in types of California bedrock (many rocks exceed clean up goals for various metals), naturally occurring asbestos (including non-serpentinite sources and false positives for serpentinite), mélanges and impact of new findings on mélange origins upon engineering characterization, engineering petrography, and relevance of metamorphic petrology (really). The common theme is that fields of basic geoscience thought by many to be irrelevant to applied geology are in fact useful; the teaching of basic geoscience disciplines, including field geologic training, is important for the future of the profession.

John Wakabayashi is a San Francisco Bay Area native who moved to Fresno in 2005 to begin his academic career as a geology professor at California State University, Fresno. He received his B.A. in Geology in 1980 from UC Berkeley, and his PhD in Geology in 1989 from UC Davis (advisor: Eldridge Moores). He is a Professional Geologist (California) and a Fellow of the Geological Society of America.

After graduating from Davis he worked as an engineering and environmental geologist for 16 years (1989-2005), the last 13 years as an independent consultant based in Hayward, California, before becoming an academic. He worked on a variety of different types of projects, including seismic hazard evaluation/paleoseismology, slope stability, engineering and forensic petrography, naturally occurring asbestos, and two Superfund projects on which his primary specialty was evaluation of ambient concentrations of metals of environmental concern in soils and rock. He was a member of the Working Group on California Earthquake Probabilities.

When not doing project work (ie. when not billable), he conducted independent research, some of which derived from his project work, but most of which dealt with more esoteric

research issues such as subduction initiation processes, metamorphic P-T paths and metamorphic contrasts as tectonic indicators, emplacement of ophiolites, subduction interface processes and development of subduction complexes, evolution of orogenic belts, development of strike-slip fault systems, and long time and length scale geomorphology. He incorporated academic research of his own and others into all of his project work, trying to bridge the academic-applied geology gap from the standpoint of a practitioner. After becoming an academic he has continued his efforts to bridge this gap, with realization that the vast majority of geology professors have never been employed in the engineering and environmental geology profession that most geology graduates will work in. He incorporates both his professional and research experience into his teaching so as to better prepare students for professional careers, as well as providing a foundation for students who wish to undertake graduate study.

His research has resulted in 82 published papers, over 100 abstracts tied to presentations at major geoscience meetings. The breadth of his research has broadened rather than narrowed over time. In spite of the wide range of research interests, the geology of that beguiling train wreck of rocks known as the Franciscan Complex of coastal California remains his chief interest and the many aspects of mélanges have become his main focus since 2009. At Fresno State he teaches non-major introductory geology, geology major undergraduate courses in petrology, geomorphology, and structural geology, graduate courses on active tectonics/seismic hazard analysis and orogenic belt tectonics, and his bread-and-butter undergraduate course in advanced geologic field mapping (he makes his students map Franciscan along with landslides, flights of stream terraces and some potentially active faults). He has supervised or is supervising a large number of graduate and undergraduate student researchers, and this includes a number of students from outside of Fresno State.

Outside of geology and beer (an amateur brewer since 1994), he is probably best known for his experience trout fishing in the backcountry (must be hiked to) of California, having launched casts into over 750 different lakes, about 700 of these in the Sierra Nevada; 2015 was an especially good summer. His strength and fitness routine that prepares him for his fieldwork and recreational hiking (and burns off some of the beer), as well as holding his body together for his return to playing basketball, has also gained some notoriety. This routine includes excessively long plank sessions and multiple repetitions of muscle ups.

Thank you for the RSVP! See you on Tuesday February 13, 2018!