



AGS NEWSLETTER

ARIZONA GEOLOGICAL SOCIETY, INC. AUGUST 2008

DINNER MEETING SPEAKER AUGUST 5, 2008

RICHARD HEERMANCE, U.S. GEOLOGICAL SURVEY

Terrace Formation & Climate Change in Southern California

ABSTRACT: The western transverse ranges in southern California contain impressive, steep mountain fronts, abandoned fluvial terraces, and fault scarps. Although it is often assumed that these landscape features develop over geologic time spans of 10^6 or 10^7 million years, our new data indicates that this hill-and-valley topography developed over only a few tens of thousands of years, and that rapid uplift has combined with climate shifts to control the landscape evolution. New ^{10}Be cosmogenic ages combined with geologic mapping in Ojai Valley, CA, indicate that most of the fluvial terrace straths formed either 10-12 or 25-35 thousand years ago, at times when climate was rapidly shifting from cooler (drier) to warmer (wetter) conditions. These climatically controlled erosional periods combined with rapid uplift from the incipient faulting in the region have preserved a record of both climate change and tectonic uplift. Calculated uplift rates are twice as fast as previously published. New mapping indicates that structurally controlled micro-basins developed within the late Quaternary, but were rapidly deformed and beveled flat over the last 50 thousand years. This work underscores how the landscape can completely change over short (10^5 years) time spans due to rapid climatic and tectonic events.

Dick Heermance can be reached at rheermance@usgs.gov.

Dinner Meeting Schedule:

Best Western Inn Suites (*Note the change in venue location in effect for the August, September, and October meetings owing to air conditioning repairs in progress at InnSuites*):

6201 N. Oracle Rd. in Tucson

Cash Bar @ 6 pm Dinner @ 7 pm Talk @ 8 pm

Cost: With reservation: Members \$24, Guest \$26, Students \$10 Without reservation \$3 additional if space available. Please call **(520) 663-5295** by 5 pm before **August 4th**. Indicate if a low-salt or vegetarian meal is required. Please cancel if you are unable to attend.

CALENDAR OF EVENTS:

- Sept. 2 AGS Dinner Meeting, Alyson Thibodeau, UA, Earliest silver extraction by European colonists in the New World
- October 7, AGS Dinner Meeting, Mark Barton, UA, Iron oxide copper gold deposits: A Cordilleran perspective
- November 11, AGS Dinner Meeting, Gordon Haxel, USGS, Utilization of the chemical elements



Member News:

Welcome to new AGS members **William Byrd**, Purchasing Manager for Nord Resources Corp., and **Rebecca Miller**, Principal Geologist for MWH Americas.

Current membership is 359.

Please make sure we have your up-to-date contact information for the 2008 Member Directory coming out soon.

PROPOSED 2009 SLATE OF OFFICERS & COUNCILORS

The AGS Executive Committee, led by Past-President Ann Pattison has prepared a proposed **Slate of 2009 Officers and Councilors** to be approved by the members at the **Annual Membership Meeting** on Tuesday, **September 2nd**.

The proposed Slate will be an interesting mix including:

- two husband-wife teams (Kevin Horstman & Cori Hoag and Bob & Diana Kamilli),
- at least two (more) tireless and outspoken Arizona-geology-philes (Kevin & Doug),
- six former presidents of AGS and one former president of the Georgia Geological Society,
- four members completely new to the Executive Committee (Kevin, Doug, Greta, Diana),
- three members new to the Committee last year who are staying with us (Lukas, Karl, & Mark),
- two Committee members from the deep past, who have rejoined the ranks (Charles joining Claudia in this group),
- four long-standing members who are always involved,

- at least two new members (Greta & Kevin) who have been very active in AGS "behind the scenes", and
- a healthy mix of industry, academic, consulting, and government scientists.

The dedication and efforts of the Executive Committee, Investment Committee, and our volunteers ensure the success of AGS. They take care of the day-to-day operations, keep the web site updated, line up interesting dinner meeting speakers, and coordinate and lead geology field trips all over Arizona and the desert Southwest.

If you are interested in volunteering or have an idea for good speaker, please contact President Lee Allison lee.allison@azgs.az.gov or another member of the Executive Committee.



PROPOSED SLATE

President	Kevin C. Horstman, Independent
VP Programs	Robert J. Kamilli, U.S. Geological Survey
VP Field Trips	Doug Shakel, Retired
VP Marketing	Lukas Zürcher, Lowell Program, Univ. of Arizona
Treasurer	Kris Hefton, VANE Minerals U.S.
Vice Treasurer	Coleen Brown, American Red Cross
Secretary	Claudia Stone, SRK Consulting
Vice Secretary	Greta Orris, U.S. Geological Survey
Past President	M. Lee Allison, Arizona Geological Survey
Councilor 1 (08-10)	Charles Miller, Miller Resources Inc.
Councilor 1 (08-10)	Diana Kamilli, Retired
Councilor 2 (07-09)	Mark Cocker, U.S. Geological Survey
Councilor 2 (07-09)	Karl Sandwell-Weiss, Wildcat Silver
Councilor 3 (06-08)	Robert Powell, U.S. Geological Survey
Councilor 3 (06-08)	Corolla K Hoag, SRK Consulting

OTHER UPCOMING GEOSCIENCE MEETINGS & EVENTS

Register online to attend the **AIPG 45th Annual Meeting** to be held in conjunction with the **Arizona Hydrological Society's 21st Annual Symposium** and the **3rd International Professional Geologic Conference**. The meeting will be held at the Radisson Hotel and High Country Conference Center at Northern Arizona University in Flagstaff September 20-24, 2008. Details on the technical sessions, field trips, workshops, and exhibitor information can be found at <http://www.aipg.org/2008/AIPG-AHS-3IPGC.htm>.

The **Lowell Program in Economic Geology** announces it is taking reservations for its **Short Course on Ore Deposit Mapping** to be held September 1-15, 2008. This course, led by Mark Barton and Eric Seedorff, provides the opportunity to see classic districts in the Great Basin of Nevada and Arizona while learning the "Anaconda-style" of detailed mapping that is applicable to any type of deposit. A **Short Course on Porphyry Deposits** is also scheduled for December 6-15, 2008 at the University of Arizona. See <http://econ.geo.arizona> for brochures in English and Spanish and registration details.

The SME **2008 Arizona Conference** will be held in Tucson at the Hilton El Conquistador on December 7 and 8, 2008. Technical sessions include topics in geology, mining, processing, Mexican deposits, safety, and environmental. See www.smenet.org for additional details.

2008 MEMBERSHIP DIRECTORY SPONSORSHIP

AGS is now accepting advertisements for the 2008 AGS Membership Directory. Our sponsors help offset the directory preparation and production expenses. Thanks to their generous support, the cost of membership continues to be very reasonable. We're also looking for nice cover and filler photos.

The rates for advertising are listed below:

SIZE	RATE	APPROX. DIMENSIONS
Business Card	\$25	Standard Business Card
½ Page	\$100	4.7" w x 4" h
Full Page	\$200	4.7" w x 7.9" h

What is needed: AGS can work with a variety of formats for your company ads: camera-ready, a business card, or an electronic file (.bmp, .doc, .jpg, tif, .pdf, etc.). The artwork will fit in the size limitations listed above. Feel free to submit a digital or hard copy sized to 8.5" x 11" and we will size it to fit. AGS retains digital copies of all ads published in 2005, so can place those ads again without a hard copy or digital file.

Date needed: Aug. 8 deadline - directory will be published in early August. Advertisers will receive a copy of the directory.

Send to: Please email digital copies directly to Cori Hoag at choag@srk.com or mail a hard copy to: AGS, P.O. Box 40952, Tucson, AZ 85717. If you have questions, call Cori at (520) 400-4135. Remit payment by check with the copy of the advertisement. AGS will send you an invoice (if needed) and a receipt. Thanks for your support.



ARIZONA
GEOLOGICAL SOCIETY

P.O. Box 40952
Tucson, AZ 85717-0952

Phone: (520) 663-5295
www.arizonageologicalsoc.org

NON-PROFIT ORG.
U.S. POSTAGE PAID
TUCSON, ARIZONA
PERMIT NO. 1346

For info on ordering AGS
publications, visit
www.arizonageologicalsoc.org.
AGS books & maps are sold at the
dinner meetings and by the
Arizona Geological Survey.

Please keep us posted with the changes in your contact information because the 2008 Member Directory is in press for publication in August. Travel safely as you work in those remote field locations and bring back lots of photos and interesting mineral specimens to share.

2008 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

Please mail check with membership form to: Arizona Geological Society, P.O. Box 40952, Tucson, 85717

Dues (check box) 1 year: \$20; 2 years: \$35; 3 years: \$50; full-time student (membership is free)

Name: _____ Position: _____

Company: _____

Mailing Address: _____

Street

City

State

Zip Code

Work Phone: _____ Home Phone: _____

Fax Number: _____ Cellular Phone: _____

E-Mail: _____

I wish to receive newsletter by E-mail Regular mail only Email AND Regular mail

If registered geologist/engineer, indicate registration number and State _____

Enclosed is a _____ tax-deductible contribution to the J. Harold Courtright Scholarship Fund.