



# AGS NEWSLETTER

ARIZONA GEOLOGICAL SOCIETY, INC. DECEMBER 2006

## GUEST NIGHT DINNER MEETING DECEMBER 5, 2006

**STEVEN SEMKEN**, ASST. PROFESSOR, ARIZONA STATE UNIVERSITY  
Sense of Place and Geoscience Teaching in the Southwest

**ABSTRACT:** Geoscientists study and teach in and by means of places, which are localities given meaning by human experiences in them. People and cultures view and understand places in diverse ways. Geological and other scientific knowledge of a place may be only one component of a spectrum of local meaning that encompasses aesthetics, art, ceremony, economics, history, mythology, recreation, and so on. People, including geoscientists, also tend to develop emotional attachments to meaningful places. The set of meanings of and attachments to places, held by individuals or by groups, is referred to as sense of place.

The physical environment directly influences the development of sense of place; if sense of place influences the ways people observe, interpret, and interact with nature, it must influence geoscience teaching and learning. Among some groups long underrepresented in our field despite cultural ties to land and environment, such as American Indians and Mexican Americans in the Southwest, student interest and participation in geoscience may be marginalized by teaching that conflicts with their senses of place.

Place-based teaching (PBT) leverages sense of place in students and instructors by emphasizing authentic inquiry in and about the local environment, acknowledging or integrating diverse meanings of places, and promoting ecological and cultural sustainability. Geoscience PBT is well suited to the physiographically, geologically, and culturally diverse modern Southwest. Design and implementation of place-based curricula is an exercise that involves study of indigenous empirical knowledge of Earth systems (termed ethnogeology), and representations of Southwest geology and landscapes in the arts and humanities.

The effectiveness of geoscience PBT must be demonstrated not only by student improvement in content knowledge and skills, but also by enhanced sense of place and greater engagement of diverse student groups. Ongoing ASU research on campus and in schools on the Navajo Nation, San Carlos Apache Nation, and the Superior mining district is directed at characterizing and measuring sense of place and testing PBT. Preliminary results show enhanced interest in Southwest geology, phenomena, and environmental issues; and statistically significant gains in geoscience knowledge and sense of place for Arizona.

## Dinner Meeting Schedule:

**Inn Suites Hotel:** 475 N. Granada Ave. in Tucson

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

Cost: With reservation: Members \$20, Guest \$22, Students \$7 Without reservation \$2 additional. Please call (520) 663-5295 by 5 pm before **December 1st**. Indicate if a low-salt or vegetarian meal is required. Please cancel if you are unable to attend.

## CALENDAR OF EVENTS:

- Jan. 2, Dinner Meeting, Madan Singh, ADMMR, Topic: Sustainable Development
- Feb. 6 Dinner Meeting, David John, USGS, Topic: Hydrothermal alteration - Cascade Volcanoes



## Member News:

Welcome to new AGS members **Christopher Magirl**, U.S.G.S., **Erik Pytlak**, National Weather Service, **Patrick Darcy**, and **Sue Greer**, SRK Consulting.

Congratulations to U of A student **S. Lynn Peyton** who is the 2006 recipient of the J. Harold Courtright Scholarship. She will receive \$1,500 for her dissertation research on the thermochronology and uplift in the Laramide front ranges.

Please consider a donation to the scholarship fund when you renew your dues.



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dinner meetings and by the  
Arizona Geological Survey.

*In 1901 ... even if the existence in the Miami district of large quantities of material containing from 2 to 3 per cent of copper had been widely published it is doubtful whether that information would have aroused much interest among mining men, when ... [engineers] regarded 4 per cent ore as the lowest grade that could be profitably worked. Ransome, F.L., 1919, The copper deposits of Ray and Miami, Arizona: USGS P.P. 115*

## 2007 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

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

Dues (check box)  1 year: \$15;  2 years: \$30;  3 years: \$40;  full-time student (membership is free)

Name: \_\_\_\_\_ Position: \_\_\_\_\_

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E-Mail: \_\_\_\_\_ I wish to receive newsletter by E-mail

If registered geologist/engineer, indicate registration number and State \_\_\_\_\_

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

Enclosed is a \_\_\_\_\_ tax-deductible contribution for the 2007 AGS Symposium.