



Arizona Geological Society Newsletter

DECEMBER 2012

December 4, 2012 DINNER MEETING

Who: Dr. Joaquin Ruiz will speak about "Challenges in the Geological Sciences and Education." An abstract was not available at the time the newsletter was prepared.

Where: Sheraton Tucson Hotel and Suites, 5151 East Grant Road, (at the intersection of Grant and Rosemont on the North side of Grant in the *PIMA BALLROOM* (enter at northwest corner of the building) and go upstairs to the meeting room.

When: Cash Bar at 6 p.m.—Dinner at 7 p.m.—Talk at 8 p.m.

Cost: Members \$24, guests \$27, Students free with online reservation (\$10 without).

RESERVATIONS are REQUIRED: CALL 520.663.5295 by 5 p.m. by Friday, November 30 or reserve on the AGS website (www.arizonageologicalsoc.org). Please indicate regular (London broil topped with herb mushrooms), vegetarian, or cobb salad meal preference. Please cancel by Friday, November 30 at 5 p.m. if you are unable to attend—no shows and late cancellations will be invoiced.

The December dinner meeting is sponsored by:



AGS is grateful for Rosemont Copper's sponsorship, which helps us to offset dinner meeting costs.

Learn more about Rosemont at www.rosemontcopper.com.

About the December Dinner Meeting Speaker

Joaquin Ruiz received his B.S. in Geology and B.S. in Chemistry at the University of Miami in 1977. He received his M.S. and Ph.D. in Geology from the University of Michigan in 1980 and 1983, respectively. From 1982 to 1983 he was Assistant Professor at the University of Miami. In 1983 he joined the University of Arizona Geosciences Department as Assistant Professor and was promoted to Associate Professor in 1989 and Professor in 1993. He served as head of the Department of Geosciences from 1995 to 2000. He was appointed Dean of the College of Science in 2000, a position he currently holds, and Executive Dean of the Colleges of Letters, Arts and Science in 2009. Joaquin is past President of the Geological Society of America (2010-2011). He is a member of the Mexican Academy of Sciences and the Governing Board of the Instituto Nacional de Astronomia, Optica y Electronica in Mexico. He has served as Secretary of the Volcanology Section of the American Geophysical Union, Councilor of the Geological Society of America, and as a National Science Foundation Panel Member for the Instrumentation and Facilities Program and the Centers for Excellence in Science and Technology Program. He has served as Associate Editor of the American Journal of Science, Geology, Revista, and Geofísica International of the Institute of Geology, UNAM. As a scientist with equal abilities in chemistry and in geology, Joaquin addresses many first-order problems in the Earth Sciences, such as the development of new isotope systems for studying ore deposits and the tectonic processes involved in the growth and evolution of Mexico. His research team addresses problems ranging from the origins of life to present-day climate change.

In Memoriam

Douglas W. Shakel

1938-2012



Douglas Shakel, AGS VP of Field Trips, retired Pima Community College geology faculty member, activist, world traveler, brother, uncle, friend, and student of life passed away on November 20, surrounded by some of the many people who loved him. They will all miss him dearly.

Doug loved science and learning for its own sake. Practical applications did not interest him as much as did the sheer joy that came in gaining a better understanding of the world. He was a scientist in the purest sense of the word. A self-described liberal with religious views that were “personal,” Doug was a very social guy, with friends in many different circles. One of his favorite quotations was, “Anxiety is fear in search of a cause.”

Doug grew up as an Army brat, graduated from Fort Hamilton High School in Brooklyn, NY, and then went to the California Institute of Technology, where he studied under Leon Silver and received a degree in geology in 1961. He was commissioned in the Air Force, serving as a flight test and radar navigator in B-52s, and was honorably discharged in 1967 after attaining the rank of Captain.

Doug made his way to Tucson and the University of Arizona where he received his M.S. in 1974 and studied toward a Ph.D. His thesis was titled, “The geology of layered gneisses in the Santa Catalina forerange.” Doug loved Tucson, and it was here that he would make his mark. He was instrumental in the creation of Catalina State Park, 5500 acres of foothills, canyons, and streams with magnificent saguaros and world-class birdwatching. During his 27 years of teaching at Pima Community College, he created a lasting legacy by inspiring countless students (many of whom had no idea what geology was when they entered his class) to major in geology and make it a career. Doug’s annual field trips throughout the U.S. and to foreign destinations including Morocco, China, Tahiti, Thailand, and Turkey were often the highlight of his students’ academic careers. He kept in touch with many of them until he died.



Caltech days

After retirement, Doug continued intellectual pursuits. As VP of Field Trips for AGS, he led many wonderful and well-organized trips and authored exceptional guidebooks. He led trips for the Arizona Sonora Desert Museum, gave talks at the Tucson Audubon Society “Institute of Desert Ecology,” and served on the Pima County Flood Control District Advisory Committee. In 2012, Doug took on the daunting task of organizing and writing guidebooks for all of the field trips for the 48th Forum on the Geology of Industrial Minerals. The organizers were amazed that one person could do it all, and do it so well.

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Doug Shakel, continued from Page 2 Doug leaves behind an astounding number of friends, his sister and brother-in-law, Kay and Larry Cole, with whom Doug was very close, his nephews, Doug and David, and ex-wife and good friend, Carolyn Lee.

At Tohono Chul Park in Tucson, you can see a 55-foot long wall made up of several hundred rock specimens from more than two dozen geologic formations that make up Santa Catalina Mountains. Each rock was carefully selected and placed to tell the geologic history of the Santa Catalina Mountains, which rise up in the distance behind the wall. It is also a testament to the designer and builder of this wall, Doug Shakel, whose life's purpose, in my opinion, was to learn, teach, and be a friend. He was exceptionally good at all of these things.

—Alison H. Jones

At Doug's request, there will be no funeral. His friends and family plan to get together for a celebration of his life in January, 2013. AGS will provide more information when it becomes available.

Arizona Mining Alliance Meeting

by Alison Jones

The Arizona Mining Alliance met on November 9, 2012 at Granite Construction's conference facility in Tucson.

Senator Al Melvin announced that the Arizona State Senate will go into session in mid-January for 100 days. It is his goal to have two people shadow him every day. Anyone who is interested should call his assistant to get on the schedule. This could be an interesting opportunity for anyone who is interested in what the day of a state Senator is like. He said that he and other conservative state legislators from other states are creating "Committees of Correspondence" for the next four years to facilitate communication on topics that these states have in common. Senator Melvin also announced that the Arizona Mining Alliance meetings will continue until the Rosemont Mine opens.

Kathy Arnold of Rosemont announced that their permitting is moving forward, and that they are still awaiting the Record of Decision from the US Forest Service.

Francis McAllister of Freeport McMoRan spoke on behalf of the Arizona Mining Association. He said that the organization had doubled in size during the past 18 months. They are working to prevent the federal government from removing federal land from multiple uses, which would prevent mining, hunting, and other activities. The Arizona Mining Association is working on this effort with approximately 12-13 other associations.

Greg Lucero of Wildcat Silver gave an update on the Hermosa silver mine project. They will be releasing a Preliminary Economic Assessment soon, and they are starting on their mine plan of operations. They are working with the US Forest Service to identify locations for about 40 borings for geotechnical and groundwater assessments.

Lee Allison, State Geologist and Director of the Arizona Geological Survey, spoke on the Holbrook Basin potash deposits, The Arizona Geological Survey's delineation of a banded iron formation in the Jerome quadrangle, and the challenges and opportunities in carbon dioxide sequestration.

The next Arizona Mining Alliance meeting will be held on December 14, 2012 at Granite Construction from 11:30 a.m. to 1 p.m. Lunch will be provided.

2012 J. Harold Courtright Scholarship Award

The Arizona Geological Society has selected Samuel Wachter from Arizona State University to receive the 2012 J. Harold Courtright Scholarship. The scholarship is awarded annually to support M.S. and Ph.D. research in economic geology and field studies in the Northern and Southern Cordillera.

Samuel received his A.A. degree in Geological Sciences from Santa Barbara City College in 2010 and his B.S. degree in Geology from California State University, Northridge last spring; he is now pursuing a M.S. degree in Geological Sciences at ASU. Samuel will use the scholarship award of \$3,000 to study structure and mineralized veins in Baja California Sur. The title of his study is "Structural Evolution of Ore Mineral Viability of the Northern Sierra de la Laguna Mountains, La Ventana, Baja California Sur." Samuel's thesis advisor is Steve Reynolds.

The award will be presented to Samuel at the December or January AGS monthly dinner meeting.

Field Trip Report

By Cori Hoag

The Arizona Section of the American Institute of Professional Geologists (AIPG) and the Arizona Geological Society held a joint field trip to the Valley of the Sun on November 10, 2012. Dr. Steve Reynolds of Arizona State University, assisted by Julia Johnson, ASU Geology Department lecturer, led 42 enthusiastic participants. . . it was a great turnout! The trip began in the Phoenix Mountains (with stories of the historic mercury mines and the origin of "Dreamy Draw" related to the hallucinations of the miners exposed to the mercury) and then proceeded into the South Mountain Park where participants were treated to a gorgeous view of the valley. It was a beautiful autumn day, with lots of sunshine and a cool breeze. The group stopped for lunch at Dos Molinos restaurant to enjoy some camaraderie and spicy southwest food.

Our sincere thanks go to Steve Reynolds and Julia Johnson for their expertise and willingness to share a Saturday with us.



Above: Dawn and Kevin Garcia at Phoenix Mountains Park

Photo credit: Mike Conway

Below: Trip Leader Steve Reynolds, ASU, at South Mountain Park. Photo credit: Brin Lindley



More photos on Page 5

ANNOUNCEMENTS

Welcome New AGS Members

J.D. Mizer, Graduate Student, University of Arizona
 Simone Runyon, Graduate Student, University of Arizona
 Horus Nelson, Clear Creek Associates, Scottsdale, AZ
 Alexandria Crooks, Clear Creek Associates, Scottsdale, AZ
 Misty Stroud, Student, University of Arizona
 Billy Rhoades, Phoenix, AZ
 Jay Crawford, Liberty Star Uranium and Metals, Tucson, AZ
 Rex Crouch, Hades Exploration, Reno, NV
 Christine Houts, Hades Exploration, Reno, NV

Thanks to the following AGS members for their recent generous donations to the Courtright Scholarship Fund:

John (Jack) Burke

Daniel Raj

Larry Dykers

Thanks also to Kevin Horstman and Cori Hoag for their generous donation to defray field trip guidebook production costs.

Phoenix Basin Field Trip Photos

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Left: Yun Huan, Schlumberger, Kleo Pullin, UA, Mike Busby, Clear Creek Associates, Mike Conway, AZGS, and Elmer van den Berg, Schlumberger taking a lunch break at Dos Molinos.

Photo credit: Brin Lindley

Right: Yun Huang and Elmer van den Berg, Schlumberger, Brin Lindley, UA on trail at Phoenix Mountains Park & Recreational Area.

Photo credit: Mike Conway





Mine Reconciliation & Resource Estimation Summit

The Arizona Geological Society is proud to be a media partner for the Mine Reconciliation and Resource Estimation Summit, to be held in Phoenix on January 22-24, 2013. Just a few of the topics that will be presented include:

- The effective use of reconciliation for business and operational improvements,
- Strategies for successful grade modeling,
- Model generation: the differences between resource and grade models,
- Geological controls and deposit types: adapting your model to your mine's geology.

Special discount pricing is available for AGS members and student members.

Look for more details on the AGS website, and at www.MineReconciliation.com

2013 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

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

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

NEW MEMBER or RENEWAL? (circle one) Date of submittal _____

Name: _____ Position: _____

Company: _____

Mailing Address: _____

Street: _____ City: _____ State: _____ Zip Code: _____

Work Phone: _____ Home Phone: _____

Fax Number: _____ Cellular Phone: _____

E-mail: _____ Check this box if you do not have an email address

All newsletters will be sent by email. If you do not have an email address, we will mail a hard copy to you, but we cannot guarantee timeliness.

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

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