



Private gifts spur department to new heights

SMT, Storm, and Williams make major gift commitments; PhD Program in Works



Thanks to the generous gift of KINGDOM software valued at \$3.5 million from **Seismic Micro-Technology Inc. (SMT)**, students studying and analyzing data from petroleum exploration are becoming more familiar and integrated with programs and processes they will encounter in the real world. “The students are very pleased in the sense that they are employing this kind of technique and software that is commonplace in the industry now,” said Doy Zachry, professor of geosciences. “We have five students moving into company positions after graduation this year, and they will use this software right away. They are happy they can be on the level of other institutions that have worked with this software already.” In addition to the real-world industry experience, this software opens doors for participation in prominent, international competitions.



Maurice Storm ‘82 established the **Maurice F. Storm Endowed Chair in Petroleum Geology in the amount of \$1,000,000** in the department of geosciences. In addition to Storm’s \$1 million gift, the remaining \$500,000

required to endow a faculty chair was provided by the Walton Family Charitable Support Foundation. The Walton Family Charitable Support Foundation matching gifts have helped endow 79 professorships and chairs at the university. The new professorship will serve to strengthen both undergraduate and graduate studies while positioning the department to move forward with a PhD program in geosciences. Storm received his BS with honors in geology from the university in 1982. He recently sold Crow Creek Energy, a company he formed in 2002. In addition to managing Crow Creek, Storm has volunteered his expertise to the department by serving as a member of the Geosciences External Advisory Board. Storm hopes his gift serves as a tribute to those who helped prepare him for a prestigious 25-year career in geology. Storm has three children. He and his wife, Leah, live in Tulsa.



John Glynn Williams ‘72, ‘75, recently endowed the **John Glynn Williams Endowed Graduate Assistantship of \$250,000** to support graduate students pursuing careers in petroleum geology.

The overarching intent of the graduate assistantship endowment is to support the talents and practices of motivated master's-level geology students whose studies, research, and professional pursuits are directed toward careers in petroleum geology. John earned a B.S. and M.S. in geology from the University of Arkansas in 1972 and 1975, respectively, and has enjoyed an esteemed 35-year career in oil and gas exploration. He is a founding and life-time member and the inaugural chair of the University of Arkansas Geosciences Advisory Board. John has two children. He and his wife, Angela Pidutti, live in Houston.



U.S. Geological Survey program gives graduates a head start.

The Department of Geosciences is participating in the **USGS STEP Program** in both geology and geography. The department collaborates extensively with the U.S. Geological Survey in local, national, and international hydrogeology and GIS studies. In addition, the USGS maintains the Northwest Arkansas Water Science Center Office on the UA campus. The USGS Student Career Program supports three to five UA Geosciences graduate students annually and supplements traditional graduate funding opportunities provided through teaching and research assistantships. USGS student positions give graduates the opportunity to work directly in practical, real-world hydrogeologic environments in the region while providing a fresh and energetic perspective to USGS efforts. Students often build their graduate thesis research on their experiences with USGS. The USGS has hired more than 20 UA Geosciences graduates over the last 12 years. Current students in the program are Aaron Linglebach, Justin Palmer, Collin Reinhardt, Liam Schenk, and Blake Whittle.

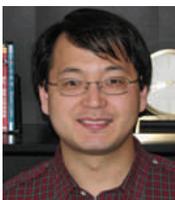
FACULTY ACHIEVEMENTS



David Stahle, Lord of the Tree Rings Stahle, a distinguished professor of geography, was featured in a National Science Foundation Video in April. Stahle collects tree-ring samples from remote forests far from human influence. With support from the National Science Foundation (NSF) he is now developing tree-rings records of Mexico's climate variability. "These forests are being cleared and cut even today because progress marches on. So it's kind of a burden on the Dendrochronological community to try to identify these relic old-growth forests." (Video Link: http://www.nsf.gov/news/special_reports/science_nation/lordtreerings.jsp)



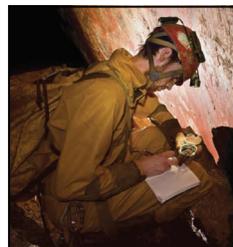
Tom Paradise was on OCDA for the fall semester 2010 in Italy and Jordan and continued his research on the deterioration of architecture across the Mediterranean. While in Rome, he worked with Vatican officials on the assessment of the Great Colonnade of Bernini at Saint Peter's Square in Rome. Paradise investigated the condition and recession of the colonnade before they underwent their first restoration in 350 years. Paradise's findings were instrumental in the 25 million dollar restoration project currently underway and are under review in stone weathering, historic preservation and baroque architecture publications. While working off campus, Paradise also spent time in Petra, Jordan, conducting research on the deterioration of it's famous Nabataean structures (c. 200 years old), in tandem with new projects the UNESCO and the World Monuments Fund. Dr. Paradise also published a number of articles and chapters on architectural deterioration, and stone weathering (tafoni) for Reed-Elsevier's new book series on Our Planet, Earth, the Journal of Architectural Conservation (UK), and the Zeitschrift für Geomorphologie (Germany). Dr. Paradise also recently published "Arkansas: An Illustrated Atlas". It has been endorsed by Governor Beebe, and features pictures of several Department of Geosciences faculty and staff.



Fang-Zhen Teng has been awarded the prestigious CAREER Award of \$458,928 over five years from the National Science Foundation (NSF). The NSF Faculty Early Career Development Program aims to encourage and aid in the growth of young professors who have shown exceptional potential in both research and educational settings. This award allows Dr. Teng to support one doctoral student for five years, one master's student for two years, as well as undergraduate students working in his lab. It will enable graduate and undergraduate students to investigate the origin, evolution and interactions between and among major Earth reservoirs through studies of magnesium isotope geochemistry.



Dr. Celina Suarez was recently hired to fill the position of low-temperature geochemistry/biogeochemistry. Her research focuses on using trace element and stable isotope geochemistry, to understand paleoecology, paleoclimatology, and taphonomy of ancient terrestrial ecosystems. She is particularly interested in past greenhouse climates. Her research has taken her to the Cretaceous Cedar Mountain Formation of Utah, the Xinminpu Group of Gansu Province, China, and the Prince Creek Formation off the North Slope of Alaska. Dr. Suarez is a native of San Antonio, TX. She received her BS (*cum laude*) in geosciences from Trinity University in San Antonio, TX in 2003, her MS in geology with honors in 2005 from Temple University in Philadelphia, PA and her Ph.D. in geology in 2010 from the University of Kansas. Dr. Suarez will be completing a NSF Earth Sciences Postdoctoral Fellowship at Boise State University where she will be using rare earth elements, stable isotopes, and Raman spectroscopy to understand bone preservation and diagenesis, prior to joining the department in August 2012. Dr. Suarez and her sister, Dr. Marina Suarez have been honored in the naming of the *Geminiraptor suarezarum*, a new dinosaur from the Cedar Mountain Formation of Utah.



Dr. Matt Covington will join the department in August 2012 as a new faculty member. He grew up in Fayetteville, and graduated from the University of Arkansas. After finishing a PhD at UC Santa Cruz, Matt is now researching caves full time as an NSF Earth Sciences Postdoctoral Fellow at the University of Minnesota; he is currently spending two years studying the classic karst of Slovenia. Over the past 10 years he has participated in over 15 major cave exploration and mapping expeditions in Alaska, Sumatra, Peru, and Mexico.



Dr. Gregory Dumond, UA Structural Geologist, has been selected to attend this year's Penrose Conference in Cadaques, Spain, an invitation only gathering that brings active scientists from the Geological Society of America, the national and international science communities, and students together for several days. Their focused discussion is aimed at providing stimulus and excitement for their field, developing new ideas and new associations, and provoking new research on important questions. Invitation selection is peer reviewed and focuses on early career contributors.

ALUMNI & EVENTS

Thanks to SGE for raising funds through rock bag sales to support the Chili Cook-Off last December and the Spring Banquet last month. The banquet was held on May 5 at Teatro Scarpino in Fayetteville. Awards were presented to 41 students and faculty in geography and geology. Many recipients were members of SGE and GTU honor societies. The highlight of the evening was engaging with some of our most notable alumni. Pictures of the event are available on the department's web site. Special thanks to the SGE officers for their leadership on this wonderful alumni event!

Anna Nottmeier, President, **Dan Dolan**, Vice President
Matt Cope, Treasurer, **Dr. Phil Hays**, Sponsor



Katherine Knierim, MS Geology 2010, has received the National Speleological Society Ralph W. Stone Graduate Fellowship in the amount of \$2,000 for cave-related research and a GSA student research grant in the

amount of \$3,000 to support for doctoral thesis research. Ms. Knierim's research (PhD - Environmental Dynamics) is understanding contaminant transport in karst systems under varying flow conditions. Kathy is working with Dr. Phil Hays.



The AWG Brunton Award 2010 has been awarded to **Rose Feinstein**, BS Geology 2010. She did her honors undergraduate thesis with **Dr. Peggy Guccione**; that research focused on a small drainage basin in southwestern Montana. Rose is now in graduate school at the University of Houston;

she is concentrating on Quaternary stream morphology, doing field-based studies on Quaternary fluvial geomorphology of headwater Rocky Mountain streams, focusing on the role of blow-down related large woody debris in headwater stream channel morphology.

"GeoHog Happy Hours" are organized by the 22-member Geosciences External Advisory Board and designed to help connect the University of Arkansas with alumni and friends in the natural resources business. The advisory board consults with department faculty and university administration on curriculum, student career services, corporate engagement, alumni relations, and long-term program development. A priority initiative is establishment of a Ph.D. program within the department.

GeoHog Invites You to Happy Hour! All UA Geosciences Grads and Friends Are Invited

Central Arkansas / Little Rock / Conway
Monday, August 22, 2011 • 5:30 P.M.

U.S. Pizza Company • Hillcrest, 2710 Kavanaugh Blvd.
Everyone is welcome. To attend, contact William Willis at
501.624.8426 or william.willis@weyerhaeuser.com

GeoHog Happy Hours are coming to Dallas, Houston, Tulsa, and Oklahoma City. For information contact: Edith Newton Wilson, Chair, UA Geosciences External Advisory Board
ewilson@tallgrassenergyllc.com, phone 918-561-6737 x 115



Attending last month's Happy Hour in Fort Smith were (from left) Doy Zachry, UA's new Dean of Arts and Sciences Robin Roberts, Luke Martin, Edith Wilson, Brenda and Chris Knubley, UA Director of Development Ben Carter, Shane Matson, Walt Manger, Doug Bailey, Ron Snyder, Jaime Woolsey, Van Brahana and Chris Howard. Gerry Lundy of Hogback Exploration sponsored this wonderful event.



Climb Higher!

Geosciences Advisory board member **Jane Spellman** proudly displays the GeoHog banner at the summit of Mount Kilimajaro.

2011 Geosciences External Advisory Board

Edith Newton Wilson, PhD, TallGrass Energy, Chair
Eddie Valek, Marathon Oil Company, Vice-Chair

Douglas 'Bug' Bailey, Northrop Grumman-Electronic Systems
Don Castleberry, National Park Service (retired)
Sean Chenoweth, PhD, University of Louisiana Monroe
Clayton 'Yarri' Davis, Vitruvian Exploration
Erica Doerr, Arkansas Geological Survey
Tom Freeman, PhD, University of Missouri Columbia (retired)
Jeff Hall, Devon Energy
Glen Harrison, Oak Ridge National Laboratory
Tim Kresse, United States Geological Survey
Chris Liner, PhD, University of Houston
Gerry Lundy, Hogback Exploration
Shane Matson, Spyglass Energy
Thomas 'Mac' McGilvery, PhD, ConocoPhillips
Ron Snyder, Ceja Corporation
Jane Spellman, FTN Associates
Maurice Storm, formerly Crow Creek Energy
Alex Warmath, Greenfields Petroleum
John Glynn Williams, Endeavour (retired)
William Willis, Weyerhaeuser

DEPARTMENT PROGRAMS

PhD Program Planned. Arkansas is the only state without a PhD in geosciences, yet the UA is situated in an area of abundant natural resources. Together, the department, the university, and the geosciences advisory board are working to boost our geosciences programs and research standing with the addition of a PhD in geosciences. By fall 2012, the department will admit its first group of PhD candidates. Within three years, a total of nine PhD candidates will attend the UA. Led by the holder of the Maurice F. Storm Endowed Chair in Petroleum Geology, PhD candidates will be offered graduate fellowships and research support to make the program a regionally-competitive model. University and private funding will support the program. The PhD also requires additional faculty hires. In addition to the Storm Chair in Petroleum Geology, three faculty will be hired to advance research in petroleum geology and geoinformatics, a specialty of the Center for Advanced Spatial Technology (CAST). The search committee for the Storm Chair will be led by Dr. Doy Zachry.

KARST INTEREST GROUP AND HYDRODAYS WORKSHOP

The Karst Interest Group and HydroDays Workshop was held April 26-30, 2011 in Fayetteville and in surrounding areas of the southern Ozarks. Over 120 karst researchers, educators, students, policymakers, cavers and karst lovers of all persuasions took part in technical presentations, poster sessions, field trips, and social events. The meeting allowed for a unique interchange among researchers and provided an opportunity to showcase the Savoy Experimental Watershed and other recent work completed by our graduates.

The workshop was a joint effort of the USGS Karst Interest Group (KIG) and Eve Kuniandy and the University of Arkansas Department of Geosciences in Fayetteville. Sponsors for the event included Edwards Aquifer Authority in San Antonio, Texas; Beaver Water District in northwest Arkansas, Jane Spellman of FTN Associates in Fayetteville; and the National Cave and Karst Research Institute in Carlsbad, New Mexico. Major funding for the event was provided by the USGS Groundwater Resources program, the National Cooperative Mapping Program, and the Regional Executives of the Northeast, Southeast, Midwest, South Central and Rocky Mountain areas. The University of Arkansas provided facilities for the technical and poster presentations and the Department of Geosciences provided vans for the field trips. An anonymous donor sponsored the HydroDays banquet and libations at the Garden Room, which was rescheduled after record floods made transportation to the Savoy Experimental Watershed impossible. We were honored to have Art and Peggy Palmer, our keynote speakers and distinguished guests, share their overview of recent karst research as it relates to paleokarst around the world.

Mark Hudson and Kenzie Turner of the USGS together with Chuck Bitting of the National Park Service (NPS) led an outstanding field trip that reflected the dominant processes and controls that affect the karst of the Buffalo national River. The second field trip was led by Dr. Brahana that included Savoy (first day it was accessible after the flooding), the Crystal Lake/Peterson Airfield Cave, and Bluff Dwellers Cave. A final day of caving was led by Rodney Tennyson and Jim Terry (local cavers in the group a chance to experience a wild Ozark cave.)

For a copy of the proceedings volume, visit the Karst Interest Group website and select the proceedings link in the welcome message. Many of our students and faculty have entries in this volume. <http://comp.uark.edu/tgd/002/Home.html>



Researchers observe Dogpatch Spring, a spring that drains water from a surface drainage basin to the Buffalo National River and has been recently contaminated.



On the Buffalo river: a recent geologic map by Mark Hudson, USGS geologist, reflects the structural control of the karst hydrogeology in the Buffalo National River area. From left to right: Mark Hudson; Tim Kresse, advisory board, member; and Chuck Bitting, who works for the National Park Service and was a co-leaders on the field trip.

Student Jobs and Internships. If you or your corporation want to recruit UA geosciences students for jobs or internships, please contact the department and discuss recruitment opportunities.

NEW SUSTAINABILITY MINOR INCLUDES GEOSCIENCES

The University of Arkansas will begin offering an undergraduate minor in sustainability for students, who may declare the minor as early as Aug. 15. In spring 2010, Provost Sharon Gaber appointed professor Stephen Boss, director of the university's Environmental Dynamics doctoral program to lead a group from many departments representing each college and school as well as the Associated Student Government president to develop a curriculum for a sustainability minor. Their work resulted in a proposal that recently received approval from the Arkansas Department of Higher Education. The minor will incorporate classes in geosciences as well as other departments across campus.

STUDENT NEWS

2010 SPRING BREAK FIELD TRIP



2011 SUMMER FIELD COURSE



Forty-nine students from Arkansas, Alabama, and Texas attended the department's field course in Montana. The field course is comprised of nine projects near Dillon Montana, and exposes the students to the geology of southwestern Montana and environs, which has been influenced by a number of historical processes and events since Precambrian times.



A \$28 million renovation of **Ozark Hall** is scheduled to begin in early Fall 2011. The construction includes updating the heating and cooling systems and plumbing, remodeling classrooms, installing new windows, and expanding the capacity of the auditorium from 180 to 275 seats. The department will reside in **Stone House South** on Arkansas Avenue until the renovation is complete.



The department is pleased to announce the installation of a **AAPG student chapter**, whose mission is to promote the study of geology especially as it relates to the oil and gas industry. The chapter is currently comprised of 21 undergraduate and graduate members and meets monthly.

Caroline O'Keefe, President **Trenton Rogers**, Vice President
Shailyn Abbott, Secretary **Lane Boyer**, Treasurer
Dr. Xiangyang Cheyenne Xie and **Dr. Doy Zachry**, Sponsors

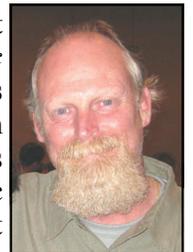
Mr. Steve Milligan led a discussion last fall for students to develop their *interview skills and resumes*. The preparation was enormously beneficial for students preparing to interview with the various companies who regularly recruit on campus.

On April, six students attended the *AAPG Spring Break Student Expo* in Norman, OK. The trip was made possible through the generosity of **Mr. Gerry Lundy** of Hogback Exploration, **Jeremiah Kinsey** of Baker Hughes, and the **Fort Smith Geological Society**. The trip included 2 days of speed courses followed by the opportunity to interview with an number of Oil and Gas companies. **Drew Kreman** also beat out nearly 100 competitors to win third place in the poster contest. Congratulations to Drew on placing in this competitive expo and for recently joining the Chesapeake Energy team.



AAPG hosted **Dr. Fred Paillet** of the University of Arkansas, who gave a short course on *Well Logging*. Nineteen students interested in environmental geology, geography, hydrology, and engineering, and those pursuing interests in the oil and gas industry found the course very worthwhile.

This fall the AAPG Chapter will host two short courses in the fall. The first focuses on *Seismic Interpretation* and will be taught by **Dr. Chris Liner**, professor of Geophysics and Reflection Seismology at the University of Houston. Thanks to an extremely generous donation from **Seismic Micro-Technology**, there will also be a short training course in the fall on SMT's Kingdom software.



For more photos of the Spring Banquet 2011: <http://geosciences.uark.edu>



SAVE THE DATE! *October 28-30, 2011*
Second Annual Alumni Fall Weekend
Geoscience events will be Friday evening
through Saturday night!
Check our Website for the latest information
as it becomes available!

Please consider a contribution to the Geosciences PhD Program.

If considering a major gift and would like more information, please contact us and we will guide you to the appropriate office.



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