



KU BEST IN JOURNAL OF SEDIMENTARY RESEARCH

Former Ph.D. student Anita Csoma, and current faculty member and chair, Bob Goldstein, along with co-authors Andrea Mindszenty, and Lucia Simone, recently were awarded the Journal of Sedimentary Research Outstanding paper award for their paper "Diagenetic Salinity Cycles and Sea Level Along a Major Unconformity, Monte Comosauro, Italy". The Journal of Sedimentary Research is the premier journal of SEPM, the Society for Sedimentary Geology and formerly was named the Journal of Sedimentary Petrology. Three's a charm, apparently. This is the third time the award has found its way to Lindley Hall, with Louis Dellwig winning the award back in 1955, Paul Enos winning it in 1969 and now Csoma and Goldstein winning it. Goldstein says that three really does seem to be a charm after being up for the award two times before in recent years. His paper with Carlos Rossi on recrystallization of quartz was a finalist in 2004, and his paper with Troy Rasbury and co-authors won the honorable mention in 2003. The third paper in the running finally received the award and Bob and Anita are grateful for the recognition it once again brings to KU's program.

LINDLEY STANDS STRONG AFTER STORM

On early Sunday morning of

March 12, faculty and students awoke to the sound of thunder. Many of the faculty and students of the Department of Geology watched what was to come, a storm with a micro-burst that brought 80 mile per hour winds and six to seven million dollars in damage to the KU campus. "It all seemed to last for less than a minute" said Department Chair Bob Goldstein. "I watched the microburst plough through my back yard and saw winds flatten trees briefly in one direction and then the other. I started by watching this from my sliding glass door and then quickly backed away as the intensity of the winds was apparent, supposing we were experiencing a weak tornado." After the winds passed, Goldstein immediately drove in to campus through a maze of downed trees and powerlines. The power was out in Lindley and he found only one other person in the building, faculty member Gwen Macpherson, checking out her lab by flashlight. Lindley Hall stood strong, with almost no damage. This was in marked contrast to other campus buildings, where there was significant damage to 60% of the buildings. The KGS's building, Parker Hall lost its roof and Dyche Hall and many other buildings with ceramic roof tiles had many of the 20 pound tiles crash to the ground. Luckily, this storm came through campus early on Sunday morning, while campus was practically deserted, and thus, no one on campus was injured. Two of the Department's graduate students did have a somewhat harrowing experience through.

PhD students Celina and Marina Suarez were both working in the Department's new facility in the Multidisciplinary Research Building when the storm struck. When power was lost, a backup generator kicked in to run fume hoods in the building. Due to a flaw in this new building's system a significant suction was created, making it impossible for the two to open the external doors and escape the building until help arrived. Although damage to the Department's facilities was comparatively light, it still was significant. Almost all of its vehicles were damaged during the microburst. The intense winds blew windows out of and into the vehicles, not from any apparent flying debris, but from the intense winds and pressure changes. Winds also pushed a fully loaded dumpster back and forth across the parking lot, repeatedly crashing into the Department's fleet of vehicles. Considering all that could have happened during this intense storm, it is hard not to think of us as lucky. No one was hurt and damage could have been much worse.

KANSAS AND PUERTO RICO MEET IN THE SNOW IN NEW MEXICO

The Department's spring break field course this year went to the Sacramento and Guadalupe mountains of West Texas and New Mexico. Led by faculty and courtesy faculty members Bob Goldstein and Evan Franseen with contributions by Luis González. This

10-day experience brought 12 KU un-dergraduate and graduate stu-dents on a geologic adven-ture that started in Palo Duro Can-yon, Texas, to study Trias-sic and Permian rocks (snow and freezing rain), the Sacramento Mountains of New Mexico to study Paleozoic stratigraphy (snow), and finally to study the Permian stratigraphy of the Guadalupe Mountains (just plain cold!). As part of its di-versity initiative with the Uni-versity of Puerto Rico-Mayaquez (UPRM), Exxon-Mobil funded a group of Puerto Rican students and fac-ulty to attend the KU field trip. Ten UPRM students and two UPRM faculty traveled to the mainland to interact with the KU group and learn from KU faculty and students. In addition to a wealth of geological experience, the trip introduced the group from the tropics to something absolutely new to them, cold weather. The first morning, many of the UPRM students were surprised to climb out of their tents to see their first snow. This of course was followed by their first snowball fight (instigated by KU faculty of course) and mul-tiple trips to Walmart for gloves, hats and warmer sleep-ing bags. Despite the weather, the trip was a great experience for all, not just great geology, but also a worthwhile ex-change of cultures and geo-logic experience. By the end of the trip, participants were shar-ing salsa dancing at the campsite and roasting marsh-mallows around the fire.

IS THERE MONEY IN FOSSILS? ASK BRUCE

If you are Bruce Lieberman, there is money in fossils. Fac-ulty member Bruce Lieberman has been selected to be Treas-

urer of the International Palae-ontological Association. He re-places faculty member Roger L. Kaesler, who held the posi-tion from 1989 until the end of 2005. The aim of this interna-tional or-ganization is to pro-mote and co-ordinate interna-tional coopera-tion in paleon-tology, including paleobotany and paleozoology of all geo-logical periods, and to encour-age the integration and synthe-sis of all paleontological knowledge. The Association was founded in 1933 and since then it has provided leadership and sup-port for paleontological activi-ties worldwide. It now boasts corporate sponsorship from thir-teen countries and publishes the *Journal Lethaia*, an international journal focus-ing on research in paleontol-ogy and stratigraphy. KU hosts its web site, under di-rection of web master, Michael Cormack, which houses three electronic databases Directory of Paleon-tologists of the World, Direc-tory of Fossil Collections of the World, and the PaleoLink Database. In addition, the Society sponsors numerous paleontological meetings and workshops, for which Bruce will be the money man. So, in terms of international support for paleontological publications, databases, and meetings, the buck stops, or starts, with Bruce Lieberman at KU.

KAESLER'S SERVICE TO GSA RECOGNIZED

Roger Kaesler has been se-lected as one of three 2006 GSA Distinguished Service awardees. The GSA Distin-guished Service Award recog-nizes individuals for excep-tional service to the Society. Awardees are selected by the Executive Committee,

and rati-fied by the Council. This award recognizes Roger's out-standing contributions over the years as editor of the *Treatise on Invertebrate Paleontology* and to paleontological pursuits in general. This well-deserved recognition for Roger Kaesler makes us all proud to be G-Hawks.

CURRENT STUDENTS WIN MORE THAN \$50,000 IN GRANTS AND AWARDS

Over the past year, the De-partment of Geology's under-graduate and graduate students have been recognized with an exceptionally high number of new external grants and awards. Such recognition coming from organizations external to the Department, demonstrate the high quality of our current crop of student G-Hawks. Seven-teen students earned a variety of awards, including 8 GSA research grants, 4 Panorama Grants, 3 AAPG Grants-in-Aid, 2 Desk and Derrick Associa-tion Scholarships, and 4 Kansas Geological Foundation Schol-arships. Jon Smith and Julie Retrum won Eugene Dehner Awards for PhD Student Oral Presentations. Jon Smith re-ceived one of two university-wide Graduate School Dissert-ation Fellowships and Brian Platt won a prestigious Self Fellowship. Many of our stu-dents received multiple awards last year. For example, Julie Re-trum received a GSA Re-search Grant, a Sigma Xi Grant-in-Aid of Research, a Panorama Grant, and a Lea-man Harris Biodiver-sity Scholarship. Other multiple award winners were: Brian Platt, Rachel Dvoretzky, Jeff Schroeder, Jessica Poteet, Steve

Sloan, and Natalie Giv-ens. The total for the external awards garnered by our students exceeds \$50,000. We hope that you will join us in congratulating this excellent group of students.

THERE IS MORE THAN ONE WAY TO SKIN A DINOSAUR

In a paper recently published by the journal *Palaios*, current student Brian Platt and faculty member Steve Hasiotis have described finely preserved impressions of the foot morphology and skin of certain dinosaurs. The study, reporting findings on rocks from the Jurassic Morrison Formation of Wyoming, is the first to show toe-like projections on the front feet of brachiosaurs. In addition, one sauropod foot-print preserved spectacular impressions of the coarse scales on the footpad, only the second such dinosaur skin impression to be described from North America. Moreover, these Jurassic foot-prints show various types of preservation, mostly controlled by the degree of soupiness of the sediment. In their paper, the researchers actually were able to use this to their advantage to reconstruct the water content of the sediment for paleoenvironmental reconstruction.

VOLCANOLOGY CLASS' LONG TREK TO LONG VALLEY

In April faculty members Dan Stockli and Tony Walton led a group of 11 seniors and graduate students on a week-long exploration of volcanic rocks of the western U.S. Thanks to funds from the Geology Associates Program, the greatest por-

tion of the long trek took just a few hours, allowing the group to fly to Las Vegas, Nevada. From Las Vegas, by-passing the casinos, the group was well positioned to drive to study volcanic rocks along the east side of the Sierra Nevada, in Owens, Queen, and Fish Lake Valleys. This was truly a working field course, with many field exercises along the way. The trek in the Long Valley caldera was long on diverse field experiences, with exposures of strombolian cinder cones, tuff rings and tortas of rhyolite, basalts, and volcanoclastic sediments. Two features of this trip were introducing students to features of strike-slip deformation and thermal history in the region. Apparently, the most fruitful discussions of thermal history took place while soaking in hot springs, making the field trip long on luxury!

ENCANA ESTABLISHES ENCANA ENERGY SCHOLARSHIP

Last fall, KU was pleased to welcome a new energy company to its interviewing schedule, and the company has responded by establishing an endowed scholarship for KU students. EnCana Corporation is one of the largest gas producers in North America. The company concentrates on unconventional energy resources such as coal bed methane, tight gas sands, and shale. About 75% of their North American sales volume comes from resource plays, which are oil or gas reservoirs that produce from thick sections or wide expanses of rock that require extensive development over a long period of time. In 2005, the company

hired several KU Department of Geology students for summer internships and subsequently hired them on for permanent positions. EnCana then sent a large group of recruiters from their Denver-based business units to the KU campus. One of their vice presidents gave an information briefing to more than 50 students interested in the company, and over the next several days, they interviewed students in geology, geophysics, engineering, and business. Interviewers included G-Hawks Andrea Steinle and Greg Lehman?. After their visit, the company successfully hired several new Department of Geology students for internships and permanent positions. To show their support and appreciation, EnCana has now endowed the EnCana energy scholarship for the Department of Geology. Income on this fund will be used to recruit new KU Department of Geology students interested in pursuing careers in the energy industry. EnCana's support of the students of the program is very much appreciated, and will help KU students in perpetuity.

NEW GRANT FROM SHELL FOR RESEARCH ON CARBONATE DIAGENESIS

Shell has just given KU a grant to work on the relationship between carbonate diagenesis and reservoir properties. The grant, under the direction of faculty members Jennifer Roberts, Luis Gonzalez, and Bob Goldstein will focus on developing conceptual and quantitative models for understanding the controls of carbonate diagenesis on oil and gas reservoir and

non-reservoir rocks. In addition to working on ex-tant carbonate oil fields and establishing a relationship between geologic setting, sequence stratigraphy, and reservoir properties, the grant will allow KU researchers to simulate carbonate diagenesis in the lab. In particular, the group will do experiments with low-temperature formation of dolomite induced by microbial processes as well as inorganic precipitation reactions. The \$415,000 grant, under the coordination of KU Alumni Brad Prather at Shell, will allow KU students and faculty to explore some of the nagging questions that have plagued the oil and gas industry's attempts to predict the distribution of poros-

ity in carbonate rocks. It will continue to establish KU's leadership role in research on carbonate rocks.

KU WINS RACE ON ULTRAFAST SEISMIC DEPLOYMENT

In a recent paper, published in *Geophysical Research Letters*, KU faculty members George Tsoflias and Don Steeples, and students Gerard Czarnecki, Steve Sloan, and Rob Eslick almost break the sound barrier on deployment of geophone arrays for high-resolution seismic imaging. The major factor limiting the acquisition of high-resolution seismic data in shallow subsurface applications is

typically the cost of the slow and monotonous planting of large numbers of closely spaced geophones. The KU group has come up with the solution, an apparatus for automatically planting 72 geophones using hydraulic rams. The technique produces sub-surface data comparable to that generated with hand-planted geophones, yet the entire acquisition process takes only three minutes. This major step forward will undoubtedly have wide-ranging implications for the incorporation of high-resolution seismic data in a variety of applications, and should continue KU's excellent reputation for its work in high-resolution imaging of the sub-surface using geophysical techniques.

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