

# The KU Geologic Record



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## **ExxonMobil's Michael D. Blum to Join the Faculty**

A top sedimentologist from ExxonMobil is joining KU Geology as the first Ritchie Distinguished Professor of Geology. Michael D. Blum, a Research Adviser at ExxonMobil Upstream Research Co. will take up his new post at KU in August.

Blum earned his bachelor's (1983), master's (1987), and doctorate (1992) from the University of Texas in Austin. Before joining ExxonMobil in 2008, he served as the Harrison Professor in the Department of Geology and Geophysics at Louisiana State University. He has also held faculty positions at the University of Nebraska-Lincoln and Southern Illinois University.

A past president of SEPM's Gulf Coast Section, Blum's research focuses on fluvial and coastal sedimentology, sequence stratigraphy of continental and shallow-marine successions, global to regional sea-level change, geologic responses to global change, and source-to-sink sediment dispersal in the stratigraphic record.

The Ritchie Professorship is supported by a generous gift from Scott Ritchie (BS '54) and Carol Ritchie (music education '54). Stay tuned for an interview with Mike in the *G-Hawker* this fall.

## **Kise LaMontagne Provides Generous Support**

KU Geology is pleased to announce a new gift from Kirsten "Kise" LaMontagne, which is providing substantial support to the Max L. and Ailene W. Krueger Fund.

Established by her parents in 1972, the Krueger Fund supports the preparation and publication of *The G-Hawker*. Max Krueger (1902-1980) graduated from KU in petroleum geology in 1924 and went on to work with Union Oil in California and other oil companies before opening his own successful consulting business.

"We are profoundly grateful for the ongoing support of Kise and her family," said KU Geology Chair Luis González. "The *G-Hawker* makes it possible for the Department to remain a close-knit family, no matter how far away our alumni travel in their explorations of the world." This fall the *G-Hawker* will profile the role Kise and her family have played in keeping GeoHawks connected.

## **Shell's Chief Regional Geologist Teaches Deepwater Deposits**

Alumnus Brad Prather (BS '79) taught a two-day short course on deepwater deposits to 24 KU Geology students in November. Brad is Chief Regional Geologist at Shell Exploration & Production Company. Associate Scientist Diane Kamola organized the course, which benefited from Brad's extensive experience. In 2013, his exploration expertise led AAPG to tap Brad as the keynote speaker at the AAPG Geosciences Technology Workshop on Asia Pacific Deepwater Plays. In 2012 he co-edited a special SEPM publication on deepwater deposits.

### **Mike Taylor Co-Authors *Nature Geoscience* Paper on New Fault**

Associate Professor Mike Taylor co-authored a paper describing a previously unknown active fault in Nepal. Published online in *Nature Geoscience* in December 2012, the paper shows that Nepal's most populated region is at greater risk for life-threatening earthquakes and catastrophic flooding than previously thought. The work also calls into question long-held views about how the Himalaya and mountain belts in general behave and evolve.

The research identified and mapped an earthquake rupture more than 63 kilometers long in the high elevations of the western Himalaya. The newly identified Tibrikot fault is approximately 100 kilometers northwest of Tansen, Nepal, a town of nearly 30,000 people, and about 230 kilometers west of Nepal's capital of Kathmandu.

The fault is part of a much larger fault system the researchers identified and named the Western Nepal Fault system, which is more than 350 kilometers long. This system connects active faults in the Himalaya with faults in southern Tibet – a connection that researchers had not expected.

"A large earthquake occurring along the newly identified faults could transfer stresses from western Nepal towards densely populated Kathmandu to the east," Mike Taylor said.

Co-authored with five other researchers from around the world, the paper is entitled *Limit of Strain Partitioning in the Himalaya Marked by Large Earthquakes in Western Nepal*.

### **KU Ichnology Goes Big Online**

Professor Steve Hasiotis and his IchnoBioGeoScience (IBGS) student research group have built a comprehensive trace fossil website, [ichnology.ku.edu](http://ichnology.ku.edu). Besides basic information on the discipline of ichnology and video lectures, the site provides detailed information on hundreds of fossils.

Master's student Andy Connolly explained that geologists can get help from the website when they encounter fossils they cannot identify, even in the field.

"On our website, we provide a list of over 300 different types of microbial, invertebrate, and vertebrate trace fossils. Each trace fossil has its own webpage with a description, where it can be found, when it can be found, references about it, and images. Using these web pages, you can then decipher your trace fossils in the field."

This month Andy will present a poster on the website at the North American Paleontological Convention at the University of Florida Museum in Gainesville.

## Selden and Colleagues Find a Fossil Mate for Huge Spider

Gulf-Hedberg Distinguished Professor and Paleontological Institute Director Paul Selden and his colleagues have described the largest-known male fossil spider ever unearthed. In findings published in the December issue of *Naturwissenschaften, The Science of Nature*, Selden described a find that is intermediate between the more primitive kinds of araneomorph, or ‘true’ spiders, and the orbweavers that are well known today. The find has a body that is 1.65 centimeters long with its first leg stretching 5.82 centimeters.

Discovered in volcanic ash beds at Daohugou in China, the giant fossil spider is considered to be the male version of a female spider, called *Nephila jurassica*, found a short time ago in the same locality. But because some of its physical characteristics are different from the *Nephila* genus, the latest discovery has spawned an entirely new scientific name.

“Because the male shows features that are not consistent with the placement of the species in *Nephila* or, indeed, the family *Nephilidae*, the species was given a new genus name and a new family erected to accommodate the new genus,” Paul said.

## Paola Gives Klein Lecture

In the 2013 Klein Lecture, Chris Paola, the CSE Distinguished Professor at the University of Minnesota, talked to an audience of students, professors and alumni about “Small Worlds: What We Are Learning from Experimental Stratigraphy.”

Chris’ major research focus is the development of techniques for experimental stratigraphy. Most of his research has been carried out at the St. Anthony Falls Laboratory on the shore of the Mississippi River in Minneapolis.

## Geology Field Notes

Assistant Professor **Leigh Stearns** is a member of one of only 20 teams of KU scientists to receive research funding from the University as part of its five-year strategic plan. Entitled “High-Fidelity Numerical Modeling of Glacier Science,” Stearns’ project was among the first group of grants to be announced.

A Who’s Who of University leadership met with the KU Geology faculty and alumni who serve on the Geology Associates Advisory Board in the fall. KU Chancellor **Bernadette Gray-Little**, College of Liberal Arts and Sciences Dean **Danny Anderson** and Provost **Jeffrey Vitter** discussed the future of the Department and University in the meetings in Lindley Hall.

Six students took honors at the 2013 G-Hawk Symposium Poster Competition in October. For graduate research posters, the winners were **Charity Phillips-Landers** (1st Place), and **Michael Waynick** and **Josh Schmerge** (2nd Place). For undergraduate research posters, the winners were **Alexa Goers** (1st Place), **Ashton Sparks** (2nd Place), and **Isabel Villaneda-Vanvloten** (3rd Place).

Crews from **KGS** and the Division of Water Resources at the Kansas Department of Agriculture braved the coldest temperatures in a generation (-8 and below) as they undertook their annual survey of aquifers in western Kansas in January. The crews measured more than 1,400 wells in 47 western and central Kansas counties.

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## There's Still Time!

We are SO close to reaching our fundraising goal and beginning construction on the new Earth, Energy and Environment Center (E<sup>3</sup>). Bringing state-of-the-art laboratories and facilities to KU Geology, the Center will attach to Lindley Hall and extend into the parking lot next to Lindley. As we head toward the end of the campaign, however, there is still time for you to get involved. Contact Nancy Jackson at KU Endowment to help us make this project a reality: [njackson@kuendowment.org](mailto:njackson@kuendowment.org), (785) 832-7357.

## KU Geology Gets Its Close-Up

Did you miss the video profile of KU Geology on GSA TV? You can find it on YouTube by searching for "KU Geology Bridging Energy and Environment."

## Rock Chalk Facebook

KU Geology's Facebook page, [www.facebook.com/KUGeology](http://www.facebook.com/KUGeology), hosts lively discussions, features the latest photos of faculty and students, and reports the KU geoscience news. Visit and *Like* the page to keep up to date on all the happenings.

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