

Department of Geology

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
School of Earth, Society, and Environment

Geology moves into spectacular spaces in the “new” Natural History Building!!

The long-awaited return to the Natural History Building occurred in late May! Offices of the Department of Geology and the rest of the School of Earth, Society, and Environment are now settled in; laboratories will reach completion in the coming months. The “new NHB” is elegant and modern, yet retains many of the historic elements that Geology alumni associate with their “home” on this campus.

The building has a new configuration. The School of Integrative Biology has a large teaching complex in the North end- the historic 1892 wing designed by Nathan Ricker—from the first floor to the top floor. The remainder of the building is occupied by the three departments of the School of Earth, Society and Environment (SESE)—Geology, Atmospheric Sciences, and Geography and Geographical Information Science (GGIS).

“Geology Row”, which includes most of the department’s faculty offices,



**Nov. 4th Celebration—
Join Us!**

On November 4th, join fellow Geology alumni, current faculty and students, and friends to celebrate the re-dedication of NHB. We'll have building tours, lunch for everyone, a rededication ceremony, and plenty of time to reconnect! For more information, see the department's web site.

is located on the east side of the third floor. The offices open up into the elegant Jack C. and Catherine I. Threet Gateway Area, which includes beautiful oak cases for our rock and mineral displays, and a geological time scale embedded in the floor. Many

Geology alumni remember the old Natural History Museum, that occupied the center of the building on the third floor until 2002. This room, known as The Core, immediately adjacent to Geology Row, is now a space for student group work and gatherings—the SESE student hub.

It serves the same purposes as the old Wanless Room, except it serves all three departments of SESE. The dramatic vaulted ceiling has been beautifully restored, and the alcoves house our light tables and large

work tables where students can spread out maps and group projects. The space has a video projector and is perfect for awards ceremonies and other gatherings.

The Geology laboratories are scattered throughout the middle sector of the building. The south “courtyard” has a new structure built in what was open air three years ago; this holds the geomicrobiology and geochemistry labs. Other labs are elsewhere on the first and third floors. Graduate student and post-doc offices occupy

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NHB's facade has been cleaned and tuck-pointed and energy-efficient windows have been installed, along with an efficient, quiet central HVAC system.



The Nathan Ricker-designed double staircase has been restored to its original elegance, complete with ornately carved wood to match the original staircase on the right.



LETTER FROM THE HEAD

Greetings from the Natural History Building! I write from the R. James Kirkpatrick Department Head Office—a quiet, comfortable, sunny office in the middle of “Geology Row,” the new home for the department’s offices on the east side of the third floor. I did not realize how wonderful it would feel to be in “the new NHB” and how much this is a game changer for the department.

The added visibility the new NHB provides will help the department attract more students to the Geology major. Several hundred students will walk into NHB every day this fall, and the new facilities will better reflect the status of geology as an advanced professional discipline with interesting and rewarding careers. In the hallway where students congregate outside the main lecture hall we will install a large video wall to display earth images, geophysical models, aquifer simulations, field photos, news, event notifications, and other items to let everyone know what geology is all about.

But there’s much more to the new NHB than shiny new facilities. The building retains its historic character, and certain elements that were hidden or dismantled have been restored to their original splendor (see story elsewhere in this newsletter). I could go on... but instead, I will urge you to visit and see for yourself. On November 4th, when we hold our NHB re-dedication ceremony, many of your fellow alumni and friends of the department will be here. We are planning a festive occasion with opportunities to reconnect with old friends, meet the current Geology crew, and mingle with alumni of all generations. Of course, you can stop in at any time. We plan to hold an open house during Homecoming weekend, but please stop in any time you are in the

area. In this 150th anniversary year, the history of our campus, which binds students, faculty, and alumni together, is at the forefront. Although the U of I is a place of great innovation and change, the weight of its history, embodied in its buildings and grounds, anchors us and reminds us of the enduring goals and value of higher education.

The department and the College of Liberal Arts and Sciences are very grateful for the many donations that have supported this ambitious project. As you know from my previous letters, the project budget included critical support from alumni and friends. Due to a number of factors, we are still far from our fundraising goal. Many of you have given to the Natural History Building Renovation Fund over the past few years, and we remain incredibly thankful for your support. I am proud to say that Geology leads the other departments using NHB in the number and total amount of gifts so far. If you haven’t yet had an opportunity to send a donation, please consider contributing to this project at whatever level is meaningful to you. To make an online gift to the NHB Renovation Fund, you may do so by visiting the department web page (www.geology.illinois.edu) and clicking on the “GIVE” link in the upper right corner. If you need help with any method of donation, feel free to call the department at (217) 333-3540.

Department faculty and students continue to excel in their various endeavors. Prof. Gary Parker was elected to the National Academy of Sciences! Prof. Feng Sheng Hu is the new Dean of the College of LAS. THREE graduate students have received prestigious NSF Graduate Fellowships over the past two years; this is unprecedented in my time here. Profs. Willy Guenther and Jenny Druhan have received their first major federal grants, and several other faculty have new grants beginning this year. Prof. Trish Gregg was chief scientist on an expedition near the East Pacific Rise (see article elsewhere in this newsletter). Prof. Bruce Fouke has been asked to continue his excellent work as Director of the Carver Biotechnology

Center on campus. Prof. Steve Marshak has published a new textbook, *Earth Science: The Earth, The Atmosphere, and Space* with Bob Rauber, Department Head of Atmospheric Sciences. Prof. Lijun Liu has been promoted to Associate Professor and was named a “Lincoln Excellence for Assistant Professors” Scholar. As I write, Prof. Jessica Conroy is attending the prestigious Kavli Frontiers of Science symposium in Ambon, Indonesia.

My focus is turning toward important strategic goals for the department as the huge workload related to the NHB project recedes. First and foremost is an increased emphasis on reaching out to undergraduate students on campus to introduce them to geology. Most Geology alumni tell me they came to the U of I to study something other than geology—say, chemistry, or engineering—but somehow they found this department and never looked back. This is still how it works today, and we will be putting more effort into getting the word out so that we may serve more of the 33,000 undergraduate students on this campus. Increasing the number of Geology majors will strengthen our programs and allow us to better compete for resources on campus. We are planning more open house events so that more students can learn about our programs, we will upgrade our pitches to students in our 100-level classes, and our excellent new facilities will of course help greatly in enticing students to join us.

Overall, a strongly positive, forward-looking atmosphere permeates the department as we settle into our new home. I hope to see many of you for the November 4th celebration or whenever you come to visit in the coming months.

Please keep the Illinois Geology community up to date by joining our LinkedIn group, “UIUC Geology Alumni” and sending your news to us at geology@illinois.edu.

Very best wishes from the new Natural History Building!

Tom Johnson

Tom Johnson

Completed Renovation of NHB

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Left: The new sedimentology and surface processes laboratory. Center: A typical graduate student office. Right: Geology row, where most faculty offices are lined up contiguously and the department's rock and mineral specimens are displayed in elegant new oak cases.

the mezzanine and large areas of the fourth floor.

The third floor is a busy place; the department shares it with the Department of Atmospheric Sciences and the SESE business office. GGIS offices are located on the second floor. Now that SESE has all three departments under one roof, we can more easily pursue greater synergy and interdisciplinary research and teaching opportunities.

The overall feel of the building is not greatly different; the old oak doors, moldings, and trim were taken down, refinished and re-installed. The lighting is greatly improved, and hallways are much brighter. The old, creaky wooden floors have been replaced by a shiny terrazzo finish (fans of those creaky floor boards need not despair; they were repurposed as

the floor of the SESE student hub—sans the noises). Many Geology alumni will recall the creaky wooden staircase in the north wing, with an ornate, carved bannister. As it turns out, this was built as half of a beautiful double staircase in 1892; the “missing half” has now been reconstructed, with the help of laser scanning and precision wood milling. The result is stunning, and it invokes the long, distinguished history of this campus.

The unseen but critical part of the picture is the new infrastructure. The building now has quiet, efficient central air conditioning—gone are the loud window air conditioners that marred the building's façade—and the plumbing and electrical infrastructure in the laboratories is up to date and well designed. For the first time, all spaces are wheelchair-accessible.

The new classrooms are bright and modern, and designed for 21st century learning. Most are designed for a greater emphasis on group work and problem solving and less emphasis on traditional lectures. Room 2020 is SESE's main classroom. It is configured with 6 students per table, and has rolling white boards and linked video screens so each group can share and defend their work—anything from sketched cross-sections to geochemical calculations. The Min/Pet microscopes lab has similar group tables.

The re-opening of the Natural History Building is a new beginning for both SESE and the Department of Geology. It will increase the visibility of the departments and programs on campus and serve as a magnet for students, for decades to come.

Donor Profile – Bruce Johnson



Third generation Illini, Geology graduate, and longtime supporter of the Department of Geology, Bruce Johnson is generously sponsoring a faculty office in the Natural History Building.

“I've used the education I received here every day over my thirty-five years with Chevron and now with my company, Laurel Oak Energy,” Bruce says. “My wife Ann and I are strong advocates of education, volunteering our time to mentor high school students, funding a scholarship in honor of Ann's mother at the University of Texas at San Antonio, serving on the

Board of the California State University, Bakersfield Foundation, and now serving on the Geology Department Alumni Board and sponsoring a faculty office in the Natural History Building. We're thrilled to be part of the Department's growth.”

From 1979 to 2015, Bruce held a variety of technical and executive assignments with Chevron, including Vice President, San Joaquin Valley Business Unit; and Vice President of Development (Texaco Worldwide Upstream), among many others. He worked throughout the United States and in Indonesia, and with partners, suppliers and governments in major basins around the world including the United States, Indonesia, the United Kingdom,

Venezuela, the Philippines, China, Angola and Nigeria. He founded Laurel Oak Energy in 2015 to invest in oil and gas development opportunities. Among his many achievements over the years are leading Chevron's California E&P operations through a period of growing regulatory pressures and an evolving environmental landscape. He was also responsible for strategy development and implementation in several Chevron businesses including California E&P, deepwater Gulf of Mexico, LNG Regasification and deepwater production technology.

“I am looking forward to attending the opening of the NHB on November 4th, and reconnecting with alumni, faculty, students, and friends of the Department.”

Sharon Mosher receives 2016 LAS Alumni Achievement Award

Sharon Mosher (BS, '73, PhD, '78) was named a recipient of the LAS Alumni Achievement Award in 2016.

Mosher's interest in geology began when she accompanied her father on Illinois State Geological Survey field trips, and it's been a lifelong passion ever since. After earning her bachelor's degree at Illinois and master's degree at Brown University, Mosher returned to Illinois for her PhD, drawn by U of I's emphasis on both fieldwork and theory, as well as by top professors such as Dennis Wood and David Anderson.

As a faculty member at the University of Texas at Austin, she has taught geoscience to thousands of students and supervised 55 master's and PhD students. She said her greatest love was teaching geology in the field, serving as field camp director for 15 years. Now, after becoming the dean of the Jackson School of Geosciences at the University of Texas at Austin in 2009, she is most proud of creating a strong program for undergraduate and graduate students, as well as building collaborative research groups.

Sharon has served in a large number of important leadership positions in the geoscience community, including President of the Geological Society of America, President of the American Geological Institute, Chair of the Council of Scientific Society Presidents and leader of a National Science Foundation-supported Summit on the Future of Geoscience Education. Overall, it is clear that the geoscience community views Dr. Mosher as a go-to leader who gets results.

2016 Alumni Achievement Award: Don Lowe (PhD '67)



Sedimentologist Don Lowe receives the Alumni Achievement award before presenting his latest research to the department.

On November 3rd, 2016, Prof. Donald R. Lowe of Stanford University was presented with the Department's Alumni Achievement Award. Prof. Lowe presented a lecture, "The Geologic Record of the Late Heavy Bombardment" and received the award from Department Head Tom Johnson.

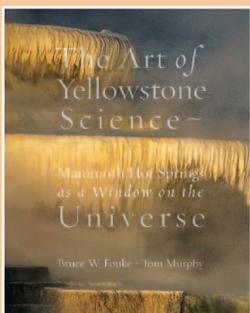
Don is a prolific and widely respected scholar of sedimentary geology. He studies

deep-water sedimentation, especially using outcrops and cores, to study processes by which sediment is transported and deposited in the deep sea. This area of research has major implications for oil and gas exploration and production in deepwater environments. His group also uses the techniques of sedimentary geology and geochemistry to explore the nature and role of early organisms, the role of giant meteorite impacts in early crustal development, and Archean basinal settings and tectonics, generally before 2.5 billion years ago.

Prof. Gary Parker commented on the significance of Prof. Lowe's work: "Many of the very earliest tools for the interpretation of submarine outcrops were developed by Don Lowe. His 1982 paper on sediment gravity flows (high-density turbidity currents) has been quoted a very large number of times. The frequent quotation should be viewed in terms of tools that shed light where otherwise there was almost complete darkness."

Don grew up in Sacramento, California, and graduated from Stanford University. After he received his PhD at Illinois in 1967, he spent two years as a post-doc at the US Geological Survey until he was hired as an Assistant Professor at Louisiana State University in 1970. After 18 years at LSU he moved to Stanford, where he is currently the Max Steineke Professor. The Alumni Achievement Award recognizes an alumna or alumnus for significant contributions to their field, including contributions in research, industry, education and/or public outreach.

Bruce Fouke publishes book on Yellowstone Science and Art



Bruce Fouke, along with photographer Tom Murphy, has published a new book, *The Art of Yellowstone Science—Mammoth Hot Springs as a Window on the Universe*. The book presents stunning images and clear explanations of the geobiological and astrobiological phenomena found in hot spring systems.

"*The Art of Yellowstone Science* is the result of more than two decades of dedicated research, teaching and nature photography in Yellowstone National Park, and has been created by the confluence of several momentous events that are especially meaningful to the Department of Geology and the University of Illinois Urbana-Champaign campus," says Fouke. "The focus of the book is to illustrate how science and art are both the result of the same human desire to understand our place in the universe, and how these studies from Yellowstone can be applied to pressing issues that face society around the world as they relate to the environment, energy, human medicine and even space exploration."



Geology alumni board members viewed the ongoing NHB renovation in November, 2016. From left: Prof. Jim Best; Roscoe Jackson; Bruce Johnson; Prof. Tom Johnson; Steve Kirby; Rob Lander; Rik Lantz; Prof. Emeritus Dan Blake; Patricia Santogrossi; SESE Director Steve Marshak.

Geology Alumni Board Meets

The Department of Geology Alumni Board has been reactivated! The Geo Thrust Committee, as it was previously known, served as the department's alumni networking and fund raising group for decades. After the completion of the Geoscience 2005 endowment campaign, the group became less active. Over the past year, the Alumni Board was reconstituted, mostly with new members. Most of them were on campus for a meeting on November 11th, 2016, and others attended via audio link. They reconnected with campus, viewed the nearly complete Natural History Building renovation, were briefed about current operations of the department and the state of the endowment, and discussed trends in geoscience and employment. Additional board members are being recruited and the next meeting is scheduled to coincide with the November 4th NHB rededication event.



In Memorium: Prof. Philip Alan Sandberg

Dr. Philip Sandberg, who served as faculty in the Department of Geology between 1965 and 1995, passed away in August, 2016. Philip's death is a sad loss to all of us in the Department who remember him and much enjoyed his companionship, collegiality, and enthusiastic diversity of interests, ranging from the professional to languages, cooking, and the theater.

"Philip was one of the most renowned carbonate geologists of his day," said Steve Marshak, Director of the School of Earth, Society & Environ-

ment and faculty member in Geology since 1985, "But he was also a very friendly guy who went out of his way to mentor young faculty coming into the department and make students and faculty feel welcomed and supported."

Philip received his bachelor's and master's degrees from the Louisiana State University before going on to earn his Filosofie doktor in Historical Geology at the University of Stockholm. Philip came to Illinois as a micropaleontologist stressing his background working with cheilostome bryozoans at LSU and ostracodes at Stockholm. Probably most important among Philip's professional contributions, and seminal in the study of earth history, was a series of papers, beginning with an article in *Nature* published in 1983, examining the existence of an oscillating Phanerozoic temporal trend in non-skeletal carbonate (i.e., ooid and cement) mineralogy. He proposed that the mechanism behind this variation was plate-tectonically influenced oscillations in the CO₂ concentration of the atmosphere.

Philip was a popular teacher, his introductory course in the History of Life attracting large and enthusiastic classes, and his graduate students following his interests in micropaleontology and sedimentary petrology.

"He left his mark on the department and it was a very positive one," said Marshak.



Student Q&A: Noah Jemison

Jemison recently received the Horton Research Grant from the American Geophysical Union. He's been using the award to conduct fieldwork in Colorado in a study of uranium contamination in groundwater.

Can you talk a little bit about your path to geology? What interested you about it?

I wanted to work on something involving environmental sustainability, but also was focused on science problems. Environmental geology fit the bill very well, and I have never regretted going into geology. Understanding Earth's processes and how we can keep these systems healthy is very interesting and important to me.

What current project are you working on?

I investigate groundwater contamination by elements like uranium, chromium, and selenium. Mining and processing of uranium ore for nuclear power and weapons has polluted groundwater with toxic uranium. I study how we can track the chemical processes that cause uranium to dissolve in groundwater.

Have you had a favorite moment out in the field over the last few years?

I have been going to a field site in Colorado that has uranium-contaminated groundwater. I love going to conduct experiments, but the best part is going hiking in the mountains out there. It also is great to have a nice meal after working with a couple of beers. Perfection!

What have you found most fulfilling in your experience at U of I?

I have really enjoyed doing research here at U of I. I find it fulfilling working on state-of-the-art research that could be applied to protect our water resources.

Prof. Gregg leads team exploring submarine volcanoes in the Pacific!



The OASIS Science team consisting of scientists from UIUC, University of Florida, Woods Hole Oceanographic Institution, Boise State, the National Science Foundation, the US Geologic Survey, and the Lamont-Doherty Earth Observatory at Columbia University.

For anyone who believes space is the final frontier, Prof. Patricia Gregg will happily remind you that a mere five percent of the ocean floor has been mapped and that the depths of our waters hold as much mystery as the skies above us, including active undersea volcanoes.

Gregg specializes in volcano geophysics, focusing on tectonically and volcanically active mid-ocean ridges that chain together all across Earth's sea floor. This past November, she led a multi-institutional expedition called the "Off-axis Seamount Investigations at Siqueiros" Expedition, or OASIS for short, to investigate a chain of underwater volcanoes located in the central east Pacific Ocean.

Three years of preparation went into the month-long journey, with the ultimate goal of helping Earth scientists better understand the construction of the ocean crust by mapping this particular area of the sea floor and learning more about the types and chemical signatures of the rocks that erupted there. To explore the sea bottom, the researchers descended to the depths in Alvin, the famous and

The Navy-owned Human Operated Vehicle (HOV) Alvin submarine, operated by Woods Hole Oceanographic Inst., was used to collect lava samples and map lava flow features.

unique deep-sea research submarine; the team also used a high-tech autonomous vehicle, called Sentry, to produce high-resolution maps of their volcano targets.

The team included geology professor Craig Lundstrom and four graduate students from Illinois, as well as researchers from the Woods Hole Oceanographic Institution, the University of Florida, Boise State University, the National Science Foundation, the U.S. Geological Survey, Lamont Doherty Earth Observatory at Columbia University, Sapienza University of Rome, and The Carnegie Institution's



Tripod fish captured on the edifice of Liona Seamount, named for Prof. Gregg's 7 year old daughter.

Department of Terrestrial Magnetism. The project was funded by the U.S. National Science Foundation.

It is an unusual honor for an assistant professor to serve in the Chief Scientist role on a seagoing expedition like OASIS. Department head Tom Johnson remarked, "Professor Gregg is very organized and ambitious, and clearly has gained an unusual level of respect from her colleagues in the marine geology and geophysics research community. Not only did she run a very successful research expedition, but she did an excellent job communicating the excitement of the team's work to U of I students and K-12 school children. Her overall program here at Illinois is bringing great international visibility to the department and the university."

The College of Liberal Arts & Sciences contributed to this article.



Unlocking the secrets of the Amazon River

“It was painstaking work, as the river is huge and the temperature was 35 degrees centigrade with high humidity.”

In fall, 2016, Professor Jim Best, PhD student Julia Cisneros and senior undergraduate Vanessa Gabel left the crisp fall weather of Illinois—along with steady floors, enclosed rooms and the occasional breakfast tea—to head out to spend two weeks on a research boat on the Amazon River.

As part of an international project with Professors Renato Paes de Almeida and Bernardo Freitas and two of their graduate students from the universities of São Paulo and Campinas, Best and his students studied the form of the modern-day Amazon River to learn how it can help interpret the deposits of such huge rivers within the ancient geological record.

Their journey began in the heart of the Brazilian Amazon, near the frontier town of Tefé, to conduct research on the river. Water bottles, boots, and plenty of sunscreen were required as the team headed

out during the dry season to use traditional techniques—field examination of exposed sediments, photomontages, field sketches and sampling—to help reveal the secrets of these river sediments. By looking at the geological makeup of the deposits and quantifying which way the paleo-Amazon flowed, the group examined how the Amazon’s rivers have changed over time, with the aim of creating a model to help interpret deposits of other giant rivers locked up in the geological past.

“It was painstaking work, as the river is huge and the temperature was 35 degrees centigrade with high humidity,” said Best. “But slowly, the deposits were uncovered, and with each scrape of each new riverbank, more of this remarkable story unfolds on the ancient deposits of the world’s mightiest river.”



Sediments of paleochannels of the Amazon revealed in banks along the present day river. Clay slump blocks within a channel sand (left) and the team measuring exposed sections (right).

Alum Named Teacher of the Year by AAPG Eastern Section

Dylan Canavan (BS, '98, MS '00) has been named Teacher of the Year by the Eastern Section of the American Association of Petroleum Geologists (AAPG). Dylan has been teaching at Hinsdale Central High School in the Chicago area for 14 years and uses students’ natural interest in the world around to bring them to the critical thinking skills they’ll need far beyond their high school years.

Dylan’s teaching methods are very much influenced by his time as a student in the Department. “During my undergraduate and graduate years as a Geology student, I took advantage of every opportunity to get into the field and see geologic processes, rocks, landforms,” he says. “Entire sections of the textbook came alive in front of me. I want my students to share some of this excitement and connection.”

That’s a tall order for a high school budget and resources, though, so Dylan creates “pseudo field experiences”: building tours to see natural stones used in construction, guided museum trips, and extra credit opportunities to Illinois’ Starved Rock State Park. He’s also managed ten summer camping trips, many of which he’s modeled after the trips after the Department’s field trips.

“We do an abbreviated version of the Arizona trip that I took with Dr. Marshak over a spring break as well as the Missouri Ozarks trip and the Devil’s Lake trip. I’ve also planned a trip to Yellowstone, where we spend some time in Idaho and the Tetons, much of which I experienced first while at Field Camp in Park City, Utah.”

According to Lisa Fernandez, his Department Chairperson, “He is an integral member of the team of teachers that allows us to have one of the strongest Earth Science Programs in the state of Illinois.” Congratulations, Dylan!

From A-bomb canyon to Death Valley, with a stop at the San Andreas



The 2017 Geology 415/515 Field Class of 25 undergraduate and graduate students, under the direction of Prof. Steve Marshak, flew to Phoenix and then drove into the sunshine of Arizona and California. Beneath the Sonoran Desert's clear skies, students along with Profs. Jim Best, Willy Guenther, and Alison Anders, had the opportunity to spend their spring break studying a variety of tectonic provinces. The trip began in the Basin and Range of Arizona, where the group not only stood on amazing desert pavements, but also examined outcrops of a Mesozoic volcanic arc and fold-thrust belt, and traversed the different features of a metamorphic core complex. To reach amazing A-Bomb Canyon, cut through faulted Cenozoic redbeds, the 415/515 caravan of SUVs followed a pipeline road with slopes so steep that 4WD in low gear was a must.

From Arizona, the group headed west and crossed the Colorado River to reach the Mecca Hills of southern California. Here, they followed Box Canyon through spectacular cross sectional exposures of alluvial fans, and then entered a complexly faulted and folded positive flower

structure along the San Andreas fault. After a brief foray to stand on the plate boundary itself, manifested by a ridge of slickensided gouge, students explored Painted Canyon, where Precambrian rocks were thrust onto Cenozoic sediments. The long day continued with a drive across Joshua Tree National Park, and a sunset scramble across the granite boulders of the White Tank Pluton. Then, onto Barstow. Up until this point, the group had been camping in the desert under the stars (tents optional); Barstow afforded the trip's one motel night, with a welcome shower.

The drive from Barstow to Death Valley rolled across broad vistas of the Mojave Desert, a relatively high-altitude desert. It was a long descent down into Death Valley, but well worth it. After seeing cross sections of ancient, inactive alluvial fans in the Mecca Hills, walking across active alluvial fans in Death Valley was a highlight. So was the foray into the playa at Badwater (the lowest point in the United States), and the hike up Mosaic Canyon to see the intensely sheared, and now polished, Precambrian dolomitic marble. 415/515 wrapped up

its Death Valley days with a hike into Ubehebe Crater, a recent volcano, and the view from Zabriskie Point across badlands carved into Cenozoic lake-bed strata. Then, it was back to Phoenix, with a stop en route at Hole In the Wall, a small park offering hikes through immensely thick ignimbrites.

Subsidized in part by a generous gift from Shell Oil Company, the trip provides students with an opportunity to apply the concepts they learn in the classroom to real landscapes, structures, and rocks. The 2017 version of the course has a particularly broad focus. Steve Marshak notes, "The Arizona-California version of the course exposes students to many aspects of geology, including structural geology, stratigraphy, sedimentology, petrology, geochronology, and geomorphology. We also consider environmental issues, such as the challenges of obtaining water supplies for cities of the southwest."

Next year's trip returns to Scotland, led by Prof. Michael Stewart, and will follow the footsteps of geology's founders into the blustery highlands of Skye and the northwest coast.

AROUND THE DEPARTMENT



Gary Parker, the W. Hilton Johnson Professor of Geology and Professor of Civil and Environmental Engineering, has been elected to the National Academy of Sciences! Gary's research interests in geology focus on sediment transport, morphodynamics of alluvial and bedrock rivers and submarine sediment processes such as turbidity currents, and he's been a key member of the Geology faculty since he moved to Illinois in 2005. He has brought great visibility to the UIUC sediment dynamics program that spans CEE, Geology and GGIS, has helped us build faculty strength in that area, and has provided an excellent interdisciplinary link between Geology and CEE. In his career, Gary has authored or co-authored over 220 journal articles, and his seminal contributions to many areas of sedimentology and geomorphology are widely recognized. Gary is the recipient of many awards and honors within the fields of geology and civil engineering, including the Association for Hydraulic Research Shoemaker Award (twice), the Einstein Award, Hilgard Prize, The G. K. Gilbert award from AGU, the ASCE Rouse Hydraulic Engineering Award, an SEPM outstanding paper award, and Stevens Award from the American Society of Civil Engineers.



Feng Sheng Hu was named the new permanent dean of the College of Liberal Arts and Sciences in January 2017. Hu is a Ralph E. Grim professor in Geology, a well as a professor in Plant Biology and the Program in Ecology, Evolution and Conservation Biology, LAS accounts for one-third of all faculty on the U of I Urbana campus. Hu is the first permanent dean at the College of LAS since Barb Wilson was named acting Chancellor in August 2015, replacing Phyllis Wise. Hu has been part of the U of I faculty since 1998, serving in recent years as an associate dean for biological, chemical, physical and mathematical sciences in the college of LAS.

Alison Anders was on sabbatical for the 2016-17 academic year, working at the Geophysical Institute at the University of Alaska, Fairbanks. She worked with Dr. Andy Aschwanden and others in the Glaciology group to adapt their numerical model of ice sheet mass balance and dynamics (PISM) to address questions of long term landscape evolution. Anders has also taken on a new role as an Associate Editor for *Earth Surface Processes and Landforms*, a prominent geomorphology journal.

Craig Bethke, R.E. Grim Professor emeritus, co-taught the first ever Reactive Transport Modeling Summer School in Edinburgh, Scotland. Over four days, almost 50 graduate students from around the world came to Heriot-Watt University in Edinburgh to learn about applications of reactive transport modeling in the geosciences.

The department is happy to welcome **Max Christie**, who has defended his dissertation at Penn State and will complete his PhD this summer, as a lecturer for the Dept. Max is a paleontologist interested in how extinction affects ecosystems. He uses principles of stratigraphy, ecology, and statistics to figure out how communities of animals have changed through time.

Jessica Conroy has been named a 2017 Kavli Fellow by the National Academy of Sciences, and participated in the Indonesian-American Kavli Frontiers of Science Symposium in Ambon, Indonesia. Approximately twenty-five young scientists report on current research within their disciplines to an academically trained and scientifically diverse audience.

Gillen D'Arcy Wood, Professor of English, has joined the Geology department this past year, as a 25% appointment. He is a science and environment writer, with a particular interest in geology and Earth System writing. He is currently the Director of the U of I Certificate in Environmental Writing, which debuts this Fall. In addition to directing the new Certificate program, he will be teaching two other courses

for Geology and SESE, including GEOL 201: History of Geology.

Gabriela Dávila has been a Postdoctoral Research Associate in the Geology Department with Professor Jennifer Druhan since the last November. She's conducted a series of flow through experiments as part of the GSC02 project with the support of Stanford University and the National Energy Technology Laboratory (NETL). For the fall 2017, she continues her work to construct a high pressure and temperature experimental system for further flow-through experiments in the UIUC Geology Department.

Eileen Herrstrom retired at the end of the fall semester, 2016. Eileen taught a range of courses, including Introductory Geology, History of Geology, and Petrology, and in recent years was a major part of our effort to build and teach online courses.

Steve Hurst retired at the beginning of the 16-17 academic year. Steve performed a range of tasks from teaching and leading field courses to providing computer support.

Lura Joseph, the former Geology Librarian, is now working in the Main Library, and has created databases of Department of Geology theses and dissertations.

Sue Kieffer, Prof. Emerita, received the 2017 "Marcus Milling Legendary Geoscientist Award" of the American Geosciences Institute (AGI). The medal is given to a recipient with "consistent contributions of high-quality scientific achievements and service to the Earth sciences having lasting, historic value."

Lijun Liu has been promoted to Associate Professor, effective fall, 2017. He was also named a Lincoln Excellence for Assistant Professors (LEAP) Scholar for 2016-2017. Liu is one of only six assistant professors in The College of Liberal Arts and Sciences recognized for their exceptional accomplishments in teaching and research as part of a new program to

highlight and encourage the contributions of outstanding junior faculty in the College of LAS.

Jackie Wittmer Malinowski, our lecturer in Paleontology and Sedimentary Geology for the last three and a half years, will be moving on to a tenure-track position at the State University of New York (SUNY) at Geneseo. We wish Jackie well as she embarks on the next phase of her career, and we are very grateful for her boundless energy and many contributions to our programs during her time here.

Steve Marshak has published a new textbook, *Earth Science: The Earth, The Atmosphere, and Space*, with Bob Rauber, Department Head of Atmospheric Sciences.

Rob Sandford continued his projects that investigate N-cycle processes in surface soils. One involves a collaboration with Geology colleague Wendy Yang, and explores how nitrate reduction to ammonia occurs in soils. Rob has also contributed to the design and interpretation of experiments investigating the emergence of antibiotic resistance as a tool to understand how evolution occurs in microorganisms. This research is part to the NASA Astrobiology Center on campus.

Xiaodong Song continued developing new methodologies for seismic imaging: waveform inversion for the inner core structure, joint inversions of lithosphere structure, mapping crustal anisotropy, and extraction of seismic body waves from noise correlations. Prof. Song gave the Solid Earth Distinguished Lecture at the 2016 Annual Meeting of the Asia Oceania Geosciences Society and served as the Chair-elect and Chair (2015-2016) of International Professionals for the Advancement of Chinese Earth Sciences.

Michael Stewart added four new undergraduate students to his ongoing research projects; two are working on mixing relationships between shallow intrusive bodies in the Wasatch Igneous Belt, while two others began a project developing a procedure to measure stable chlorine isotope compositions in rocks. Fieldwork took Michael to Scotland in the spring with Univ. of Pacific Professor and Alum, Kurt Burmeister (PhD, 2005), to scout new field trip stops and devise field exercises for an upcoming field course.

Wendy Yang, her postdoc, Dr. William Eddy, and Dr. Jeremy Guest from the Civil and Environmental Engineering Department, won a USDA NIFA grant titled "Transforming the Sustainability of Midwest U.S. Crop Production Systems with Agroforestry for Food Production and Ecosystem Service Enhancement." Dr. Yang, Dr. Rob Sanford, and Dr. Joanne Chee-Sanford from the USDA-ARS, won an NSF grant titled, "Unraveling the Paradox of Dissimilatory Nitrate Reduction to Ammonium in Upland Soils."

2010s

Elizabeth (Armstrong) Meister (MS '2014), has held a series of teaching positions and is now teaching at Columbia College in Missouri, a small, four-year liberal arts college.

Matt Bizjack (MS '16) is working for SCST, Inc., on a high-profile lead contamination project in the region. He and **Joel MacKinney (MS '16)** are both learning a lot on the project, working under **Rik Lantz (BS '82)** since they graduated in May, 2016.

Alie Bruegger (MS '16) is an Environmental Project Manager at AEI Consultants in Chicago.

Juan Contreras (BS '10), is working at Newmont Mining in Winnemucca, NV, but he will be attending Colorado School of Mines in the Fall of 2017 to obtain his MS in Mineral and Energy Economics.

Armando Hermosillo (BS '12, MS '14) is working as a Geologist for the Chicago office of GZA GeoEnvironmental, Inc., an environmental consulting firm based out of Massachusetts.

Liqin Sang (MS '12) has joined the ranks of Illinois alumni at Shell! She completed a PhD in Geophysics at Texas A&M University and graduated in summer 2016.

Matt Krueger (BS '16) is working at ARI Environmental, Inc., in Wauconda, Illinois.

Mackenzie Marti (BS '15) is serving as a Geoscientist-in-the-Park at Mt. Rainier National Park this summer! At summer's end, she will return to Dartmouth to continue her graduate studies in fluvial geomorphology.

Carly Hill Miller (PhD '14) and Phil Miller (BS '08, MS '11) are proud to report the arrival of Shirley Louise Miller on 4/20/2017! Phil is part of the Illinois crowd at Shell and Carly has been working for a small independent energy company.

Andy Nash (MS '16) used his experience studying glacial deposits in Illinois to gain a position with the Ohio Geological Survey as a glacial geologist. He will be joining their efforts to complete a 3D stack map of surficial deposits across the entire state.

Martin Palkovic (MS '15) is now working at the Colorado Geological Survey. He has been working to identify natural sources of uranium in the groundwater and surface water of the Arkansas River Basin of Southeastern Colorado.

Mauricio Perillo (PhD '13) continues to love his work in the ExxonMobil research group. He writes, "I am reminded of U of I often since our research group has 4 UIUC alumni- me (GEO), one from CEE, one CHBE and another from MechSE. I also started a UIUC Geo Lunch on campus where I get together with **Mike Sweet (MS '83)**; **Eric Obrock (MS '11)**; **Ashley Howell (BS '11)** and **Richard Wachtman (MS '01)** to chat about good old days and life in general!"

Justin Rosenblume (BS '09) finished his MS at Northern Illinois University, worked in Environmental Consulting for a year, and is beginning a PhD at Univ.

of Iowa. He realized that one of the new MS students, **Stirling Lemme (BS '17)**, was an academic sibling, having worked on undergraduate research with Prof. Michael Stewart.

Richard Vachula (BS '15) is currently a student in the PhD program in the Department of Earth, Environmental and Planetary Sciences at Brown University. His UIUC senior thesis was recently published as an article in *The Holocene*.

Tiffany Vlahopoulos (BS '15) is working as a visiting Environmental Assessment Specialist at Illinois State Geological Survey.

Kasia Walkowska (BS '15) is working for AECOM, an environmental consulting firm in the St. Louis area.

Qin Zhang (BS '15) is pursuing an MS in Applied Geoscience at University of Pennsylvania.

Jin S Zhang (PhD '14) is now an Assistant Prof. at the University of New Mexico. She is setting up a laboratory for measuring sound velocities of minerals, and has already received a grant from the National Science Foundation!

2000s



James Cokinos (BS '02) has been working at CGG for the past 5 years in Houston, Texas. He recently was promoted to GIS Manager & Geologist. James recently shared photos from his wedding, which included U of I Geology Alumni **Tom Schickel (MS '06)**, **Jessica Palmer (MS '09)**, **Kelly (Zimmerman) Hutchings (BS '04, MS '06)**, **Scott Lepley (BS '02)**, **Andrew Parrish (BS '02)**, **Chris Korose (BS '95, MS '10)**, **Hannes Leetaru (PhD '97)**.

Tom Schickel (MS '06) left Shell and is moving to Pittsburgh for a new business endeavor. Tom stopped in recently to tour the new NHB facilities and catch up.

1990s

Curt Abert (BS '92) is an Associate Geologist /GIS Analyst at Illinois State Geological Survey.

Rosemary Schmidt (MS '91) was in touch to recruit a geologist for her group at the Army Corps of Engineers. She is serving as Chief of the Geology & Chemistry Section for the New England District, in Concord, MA.

Tom Corbet (PhD '91) stopped in earlier this year. Tom is a Principal Member of Technical Staff in Policy and Decision Analytics at Sandia National Laboratories, focusing on the Natural Gas and Transportation Fuels networks and Net-Flow Dynamics.

Matt Woltman (BS '98) and his wife Kay (BS Advertising, '98) live in Seattle with their two boys, ages 3 and 5. Matt obtained his MS in Civil and Environmental Engineering here at the U of I before heading out west. He recently became a partner at Anchor QEA, LLC, an environmental and engineering consulting company.

1980s

Joan Crockett (BS '83) retired on March 23, 2017 after 34 years at the Illinois State Geological Survey, where she worked in the Oil and Gas Section and Coal Section. Joan plans to continue with her activities in AAPG Eastern Section, where she is a past President. She received the University of Illinois' award for excellence in Public Engagement in 2014, for her long history of outreach at ISGS, including annual geological field trips to Kickapoo State Park for the entire 5th grade in Champaign Unit 4 Schools.

Lawrence Feiber (BS '83) is Principal and National Business Development Manager at Burns & McDonnell in Chicago. Lawrence has been on campus several times recently, as he and his wife Sonia Soto (BS, Business '84), have a daughter at UIUC and he has been establishing a recruiting connection with the department.

We caught up with **Gary Foote (MS '82)** in downtown San Francisco at the AGU meeting. After leaving Illinois, Gary worked for Amoco for seven years before building a very successful career in the environmental consulting industry. Gary worked for over 20 years with Geomatrix Consultants and is currently Principal Geologist at Terra Pacific Group.

David Heidlauf (MS '86) is Principal Consultant at Ramboll-ENVIRON in the Chicago area. He visited campus recently to recruit and give a talk about some of his projects to a class.

Sharon (Horstman) Qi (BS '89, MS '93) visited campus in September, 2016 with her 16-year-old son, who is considering applying for admission to Illinois. Sharon recalls her time in NHB, with office mates Scott Wilkerson and Tim Paulsen in the structures group. For the last 12 years she has worked with the USGS in Oregon, including time at the Cascades Volcano Observatory.

1970s

Andy Gombos (MS '73) stopped in to see NHB recently. Andy recalls working with Bill Hay, Ralph Langenheim, and Dan Blake during his master's work. He earned a PhD in Marine Geology from Florida State, then worked for Exxon-Mobil in micropaleontology and eventually geophysics. He retired in 2013 and lives in the Houston area.

Mike Renton (BS '74) is living in the Seattle area. He obtained a graduate degree in engineering at the School of Mines in Rolla, MO, then worked in Champaign and New York City, and is currently working for the Washington State Department of Ecology.

1960s

Ed Dolly (BS '62), was the 2017 recipient of AAPG's Michel T. Halbouty Outstanding Leadership Award. Ed was Chairman of the 100th Anniversary of AAPG Committee, is very active in other AAPG committees, and has represented the Rocky Mountain Association of Geologists in the AAPG House of Delegates for 30 years. Ed received his MS and PhD from Univ. of Oklahoma, began his career with Shell, worked for several other companies over the years, and is now semi-retired.

Paul D. Fullagar (PhD '63) was on the faculty of Old Dominion College from 1963 to 1967, then went to

University of North Carolina at Chapel Hill, where he taught for 40 years, 16 of them as Chair. He retired in 2007, but continued doing research, mostly using strontium isotopes to determine migration patterns of ancient humans.

Bill Ripley (BS '60) and his wife, Altha Lee, visited campus in July 2016. Bill recalled his days at the U of I and especially courses with Prof. Carozzi. He earned his MS from the University of Tennessee, and worked for Humble Oil (later Exxon). After 20 years he retired from Exxon, obtained a second MS in Hydrogeology from Oklahoma State, and began a second career in consult-

ing that continues today. Bill and Altha Lee raised two daughters, living in Houston and Oklahoma City before moving back to Lafayette, LA.

John Steinmetz (BS '69, MS '75) recently retired after 18 years as State Geologist of Indiana and Director of the Indiana Geological Survey. In 2016, the American Geosciences Institute honored him with the William B. Heroy Distinguished Service Award, and the Association of American State Geologists recognized him with its Distinguished Service Award.

IN MEMORIAM

Craig E. Butler (BS '76) died on May 19, 2017, at the age of 64. Craig was a petroleum geologist and retired from Chevron Corporation in 2012. He was a devoted family man, enjoyed traveling particularly to national parks across the country.

Paul J. Cassin (MS '49) died on July 8, 2016, at the age of 97. He was a combat veteran of World War II, where he served in Europe in the field artillery. He worked at the ISGS, where he met his future wife, Nancy Cassin, who passed away in 2002 after 53 years of marriage.

Robert M. Cluff, former student in the PhD program in Geology, died October 26, 2016, after a courageous battle with acute leukemia. While at ISGS, he contributed strongly to knowledge of Illinois Basin geology. Bob left in the early 1980s to start a consulting firm, Discovery Group, in Denver with his wife, **Suzanne (Gavlin) Cluff (BS '73)**. The firm has grown in prestige and is known for its excellence in research, fact-finding, and a diligent commitment to data.

Edward L. Dillon (BS '47, MS '49) died on May 22, 2017, at the age of 90. He participated in the discovery of over 55 oil and gas fields, in the United States, Libya, and Israel. He was an AAPG Distinguished Lecturer, and a Charter Member of the AAPG Division of Environmental Geosciences.

Arnold L. Eddings (BS '42, MS '47) died on February 2, 2017, at the age of 95. He studied under Prof. Wanless, then served in the Army Air Corps in 1943. He was employed by Schlumberger for 12 years in Kansas, Texas, Oklahoma, Louisiana, Pennsylvania, Indiana and Illinois. In 1959, Arnold became an insurance agent, continuing until his retirement in 1996.

Harold H. Falzone (BS '50) died on December 11, 2016, at the age of 89. After receiving his PhD at the University of Wyoming, he began teaching at Alta Vista school. Later he became principal at Dildine Elementary school where he worked for over 20 years, retiring in 1987.

James Clifton Gamble (MS '67, PhD '71) died on December 2, 2016, at the age of 77. He earned a MS in Geology and a PhD in Engineering Geology.

He worked in the field for Pacific Gas and Electric all over California for 24 years until he retired in 2004.

Rufus T. Getzen (PhD '72) died on April 1, 2017, at the age of 72. He earned a PhD with a specialty in ground water hydrology from the U of I. Rufus worked for more than 30 years with the USGS Water Resources Division.

Alan Goodfield (MS '63, PhD '65) died on November 1, 2016, at the age of 77. He worked for the State of Illinois Department of Transportation, Bridges and Structures for many years, retiring in 2002.

Paul C. Heigold (PhD '69) died on June 18, 2016 in Champaign, Illinois, at the age of 80. In a long and distinguished career, he was a geophysicist with the ISGS and Argonne National Laboratory.

Donald R. Kaysser (BS '55) died on March 2, 2017, at the age of 84. He worked in oil exploration, which required regular travel. Once Donald fell in love and began a family, he found a more stationary career selling some of the earliest IBM computers (as big as a kitchen!).

William D. Lieb (BS '52) died July 8, 2016, at the age of 88. After graduating, he joined the Army, and rose to the rank of Lieutenant Colonel, retiring in 1972. Bill was instrumental in the development of the Safeguard Anti-Ballistic Missile System.

Lyle D. "Mick" McGinnis (PhD '65) died Wednesday, April 19, 2017, at the age of 86. He was a seismologist with the U.S. Victoria Land Traverse Party in Antarctica from 1957 to 1959, and spent an additional 14 polar summers in Antarctica from 1969 to 1985. He served as the U.S. coordinator for the International Dry Valley Drilling Project in Antarctica, and received the NSF Antarctic Service Award in 1960. Lyle spent 6 years with the ISGS and finished his career at Argonne National Laboratory as a Senior Scientist.

Richard A. Muenow (BS '56) died on November 11, 2016. His international consulting career in forensic structural engineering brought him to the sites of the most challenging and exciting projects.

He was the first specialist to be approved by the NRC for work on nuclear power plants in the USA.

Howard L. Patton (BS '46, MS '48) died on February 18, 2017, at the age of 96. After serving in the army during World War II, he obtained his MS and then worked for SOCAL, now Chevron, for 37 years in the Rockies and on the Gulf Coast.

Kelly A. Rust (BS '90, MS '93) died on June 22, 2017, at the age of 53. Kelly served in the US Air Force, and recently lived in Michigan.

Donald L. Tiedeman (BS '58) died on November 22, 2016, at the age of 80. Don served as a Naval officer from 1958 to 1962, then worked for 35 years at AT&T, the last ten as Vice President of the Consumer Business Unit. Upon retiring from AT&T, Don worked for Fujitsu Consulting as Vice President and Senior Consultant.

Wilford F. Weeks (BS '51, MS '53) died on February 10, 2017, at the age of 87. Willy was a renowned glacial geologist honored as the department's 1999 Alumni Achievement Award recipient. He obtained his PhD from Univ. of Chicago, and later taught geology at Washington University in St. Louis. In 1962, he joined the staff of the Cold Regions Research and Engineering Laboratory in Hanover, New Hampshire. In 1986, he moved to Fairbanks, serving as the chief scientist at the Alaskan Synthetic Aperture Radar Facility, and professor of geophysics at the University of Alaska. Willy's many honors included Election to the National Academy of Engineering (1979), the Seligman Crystal of the International Glaciological Society (1989), and Fellowship in the American Geophysical Union (1989).

No further information:

Richard R. Conlin (MS '54)

Joeph T. Lewis (MS '58)

Bernard Lynch (BS '47, MS '48)

Richard F. Micklin (BS '67)

Robert L. Niemann (MS '59, PhD '61)

Kathryn L. O'Brien (BS '58, MS '63)

Terence T. Quirke (BS '51)

Philip E. Vierling (BS '58)

Student Awards

Graduate student **Noah Jemison** has been awarded a Horton Research Grant by AGU. Each year the grant is awarded to up to three students during their candidacy for a PhD degree in hydrology, water resources, or a closely related field.

Geology graduate student **Nicole Fernandez-Franzen** has been awarded a prestigious National Science Foundation graduate research fellowship, which will support her graduate education at Illinois for three years.

Julia Cisneros and **Robby Goldman** have earned the UIUC Graduate College Distinguished Fellowship. These prestigious fellowships are offered by the UIUC Graduate College to doctoral applicants of the highest caliber. About twenty are awarded each year for the entire campus; each award provides three years of support.

R. James Kirkpatrick Award for Outstanding Graduate Research in Geology
Melinda Higley

Harriet Wallace Outstanding Graduate Woman Award
Melinda Higley

Harriet Wallace Outstanding Undergraduate Woman Award
Vanessa Gabel

Harriet Wallace Outstanding Graduate Student Citizen in Geology Award
Naomi Wasserman

Harriet Wallace Outstanding Undergraduate Student Citizen in Geology Award
Sean Griffin

Outstanding Graduate Teaching Assistant Award
Spring 2016: Haley Cabaniss
Fall 2016: Naomi Wasserman

Shell Top Graduate Student in Geophysical Studies Award
Haley Cabaniss

Shell Top Graduate Student in Sedimentological and Stratigraphic Studies Award
Max Giannetta

Morris Leighton Research Grants
Haley Cabaniss Naomi Wasserman
Ching Chang John Luchok
Robert Goldman

Jackson Geology Graduate Student Research Awards
Jack Albright Jiashun Hu
Julia Cisneros Jenna Kaempfer
Michael DeLucia Jingtao Lai
Max Giannetta Jiangtao Li
Melinda Higley Quan Zhou

Winslow Research Grants
Julia Cisneros Noah Jemison

Sohl Award for Research
Naomi Wasserman

Midwest Alumni undergraduate research grants

Cristopher Alvarez Stirling Lemme
Isaac Foli Kyle Balling
Yunhe Cui Vanessa Gabel

Outstanding Undergraduate Senior Award
Jia Wang

Estwing Award
Cristopher Steven Alvarez Villa

2017 Departmental Academic Distinction
Andrew Birkey Jia Wang
Stirling Lemme

Degrees conferred in 2016-2017

Bachelor of Science Degrees

August 2016

Nils Clausen Steven Legacki
Ashly Hunt Leah Matchett
Ian Johnson Christopher Sivak
Darien Law

December 2016

Eve Mason Bruce Stockdale

May 2017

Zhirong Cai Connor D. Kennedy
Connor Michael Dorion Joanna Aileen Krueger
Vanessa J. Gabel Evan Morrow Lindroth
Sean Patrick Griffin Maxwell L. Loeb
Jordan J. Jauch Caroline Marie Mierzejewski
Gregory M. Kempers Jia Wang

Master of Science Degrees

August 2016

Alison Bruegger, "Refining the span and rates of deposition of the Glenwood Phase of Glacial Lake Chicago"

Jessica S. Hinton, "Assessing Ground Penetrating Radar as a New Tool for Identifying Lateral Spread Fissures in the New Madrid Seismic Zone"

Thomas A. Nash, Jr., "Chronology and Paleoenvironment of Peoria Silt Deposition, Gastropod Fauna, and Jules Geosol Development Along the Illinois Valley, Illinois, USA"

Michael J. Reed, (Applied Master's) "River Bank Morphology in the Tidally-Influenced, Poldered Landscape of Southwestern Bangladesh"

May 2017

Therese E. Monical, "Evolutionary Data Assimilation at Long Valley Caldera, CA"

Yi Yang, "Temporal Change of the Earth's Inner Core from Repeating Earthquakes"

Zhenhao Zhou, "Petrogenesis of Natrocarbonatite at Ol Doinyo Lengai, East Africa—Evidence from Fe and U Isotope Variations"

Doctoral Degrees

August 2016

Stephanie M. Mager, "Aspects of Deformation in a Fold-Thrust Belt: Veins and Backstop Evolution"

Faculty

Stephen Altaner (Associate Professor)
Alison Anders (Associate Professor)
Jay Bass (Ralph E. Grim Professor)
Jim Best (Jack and Richard Threet Professor)
Jessica Conroy (Assistant Professor)
Jennifer Druhan (Assistant Professor)
Bruce Fouke (Professor)
Patricia Gregg (Assistant Professor)
William Guenther (Assistant Professor)
Feng Sheng Hu (Ralph E. Grim Professor of Geology and Dean, LAS)
Tom Johnson (Professor and Head)
Lijun Liu (Associate Professor)
Craig Lundstrom (Professor)
Steve Marshak (Professor & Director of the School of Earth, Society & Environment)
Gary Parker (W. Hilton Johnson Professor)
Xiaodong Song (Professor)
Gillen Wood (Professor)
Wendy Yang (Assistant Professor)

Specialized Faculty

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Stephen Hurst (Research Programmer)
Ann Long (Teaching Lab Specialist)
Jacalyn Wittmer Malinowski (Lecturer)
J. Cory Pettijohn (Research Assistant Professor)
Rob Sanford (Research Associate Professor)
Michael Stewart (Clinical Assistant Professor)
Jonathan Tomkin (Research Associate Professor & Associate Director, School of Earth, Society, and Environment)

Affiliate Faculty

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Marcelo Garcia (Seiss Professor, Civil and Environmental Engineering)
Scott Olsen (Associate Professor, Civil and Environmental Engineering)
Surangi Punyasena (Associate Professor, Plant Biology)
Bruce Rhoads (Professor, Geography)

Adjunct Faculty

Ercan Alp Dennis Kolata
Kurtis Burmeister Hannes E. Leetaru
Todd Cole Andrew Phillips
Brandon Curry George Roadcap
Robert Finley William Shilts
Leon Follmer Wolfgang Sturhahn
David Grimley Scott Wilkerson
Sam Heads

Emeritus Faculty

Thomas F. Anderson Ralph Langenheim
Craig Bethke Albert Nieto
Daniel B. Blake Sue Kieffer
Chu-Yung Chen Tommy Phillips
Wang-Ping Chen George Klein
Donald L. Graf

Department Support Staff

Rachel Davidson (Office Support Associate)
Lana Holben (Assistant to Head)

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2016 Geology Faculty Publications

ALISON ANDERS

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JAY BASS

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ROB SANFORD

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COLLOQUIUM SPEAKERS FOR FALL 2016 AND SPRING 2017

Fall 2016

September 1

"A Hot Big Bang Theory: Magnetic Fields and the Origin of the Moon"
Charles Gammie, Dept. of Astronomy, UIUC

September 15

"Resolving Carbon's Rainbow from Uplands to the Deep Sea—or—What happens to Eroded Soil Carbon?"
Neal Blair, Northwestern University

September 22

Update on the department and the Natural History Building project
Tom Johnson, Department Head

September 29

Richard L. Hay Lecture
"The ultimate question of bubbles, the universe and everything..."
Christian Huber, Brown University

October 6

3rd Annual Phillips Lecture (Joint Geology/Plant Biology Colloquium)
"The Evolutionary-Developmental Origins of Multicellularity"
Karl Niklas, Cornell University

October 13

Ralph E. Grim Lecture
"Implications of river channel self-organization for modeling the impact of climate on mountain landscape evolution"
Colin Phillips, Northwestern University

October 20

"Multiscale compositional heterogeneity in Earth's mantle and its implications for hot spot volcanism and chemistry"
Allen McNamara, Michigan State University

October 27

"Seconds after Impact: Insights from Tektites and Experiments"
Catherine Macris, Indiana University-Purdue University Indianapolis

October 28

College of Liberal Arts and Science Alumni Achievement Award Recipient
"The changing world of geoscience: Research, Education and the Workforce"
Sharon Mosher (Illinois Geology PhD 1978), Dean, Jackson School of Geoscience, UT Austin

November 3

Department of Geology Alumni Achievement Award Presentation
"The Geologic Record of Late Heavy Bombardment"
Don Lowe, Stanford University

November 4

Joint GGIS-Geology-Atmospheric Science Colloquium
"Supraglacial Rivers on the Greenland Ice Sheet"
Larry Smith, UCLA

November 17

Ralph E. Grim Lecture
"Deciphering the rock record of nano- to microseismicity from exhumed fault textures and thermochronometry"
Alexis Ault, Utah State University

December 1

"Are ophiolites pieces of ocean crust?"
Steve Hurst, Dept. of Geology, UIUC

Spring 2017

January 29

"The Rubble in the Jungle: The impact of earthquakes, typhoons, and landslides on river processes in Taiwan"
Brian Yanites, University of Indiana

February 2

"Off-Axis Seamount Investigations at Siquieros: OASIS Expedition 2016"
Trish Gregg, Dept. of Geology, UIUC

February 9

"Engaging Students and Increasing Instructor Presence in the Online Classroom"
Cory Pettijohn, Dept. of Geology, UIUC

February 16

"The Greater Caucasus Mountains: A Natural Laboratory for Understanding the Initiation of Continental Collision"
Nathan Niemi, University of Michigan

February 23

"Geochemical kinetics during CO₂ sequestration: the reactivity of the Honotomin caprock and the hydration of MgO"
Gabriela Davila, Department of Geology, UIUC

March 2

"Integrated geophysical methods for near surface investigations"
Kisa Mwakanyamale, ISGS, UIUC

March 9

Buckley Lecture in Environmental Geology
"Putting paleo-precipitation records into global context"
Jessica Oster, Vanderbilt University

March 26

Buckley Lecture in Environmental Geology
"Searching for signatures of abiotic reactions in natural systems: an isotopic look at chemodenitrification"
Scott Wankel, Woods Hole Oceanographic Institution.

March 30

Threet Lecture
"Fluvial sediment supply to the Mekong's mega-delta: How it's changing and why this matters"
Steve Darby, University of Southampton

April 6

"Through the taphonomic lens: Fossil preservation and geochemical records in the Ediacaran and Cambrian"
James Schiffbauer, University of Missouri

April 13

Richard L. Hay Lecture
"Tectonic and Volcanic Deformation and Subduction Processes in the Aleutian Arc, Alaska"
Jeff Freymueller, University of Alaska

April 20

Earth Week: iSEE Lecture
"Corals and Climate Change: Life after Death on a Remote Pacific Reef"
Kim Cobb, Georgia Tech

April 27

Kirkpatrick Lecture
"3D Conductivity of the US Lithosphere: Results from the EarthScope MT-TA"
Gary Egbert, Oregon State University