FROM THE CHAIR

Welcome alumni and friends to the 2007 edition of the *G-Hawker*. The Department of Geology has done remarkably well over the last year, and I want to thank you all for the part you have played. Support, advice and connections established by alumni and friends of the Department have made all the difference in making us one of the strongest departments in the University.

This past year has been marked by many transitions, and the Department has come through all of this change stronger than ever. We welcomed both a new provost to the University and a new dean to the College last year. With new administrations come important new directions. The new provost has been particularly supportive of strong departments such as ours, and has worked with us in establishing a set of bylaws, useful for running the Department and training new members of the faculty. The new dean has also worked closely with us, and our Geology Associates Advisory Board, on our Department's strategic planning initiative. He has been particularly supportive of the interdisciplinary nature of our research and teaching. The resulting Department Strategic Plan is forward looking, and at the same time, incorporates the traditional strengths of the Department.

There have also been many transitions in the faculty of the Department. I am sure many of you have heard the sad news that our good friend and colleague Roger Kaesler passed away recently; this has been difficult for us all. I am pleased to dedicate this issue of the *G-Hawker* in his honor. Roger exemplified the best of what it means to be a G-Hawk. The Department and its students were part of his family. He was a kind and caring person who was passionate about his teaching and research. In many ways, his dedication made the Department of Geology the success it is today.

There have been other transitions in the faculty. Randy Van Schmus has now fully retired after a period of phased retirement. Coming to the Department this year is a new distinguished professor in paleontology, Paul Selden, and Professor Evan Franseen, a carbonate stratigrapher who had been with the KGS. We are also welcoming two new faculty members in January: Alison Olcott, who studies fossils and organic geochemical signatures of very old rocks; and Andreas Möller, who is a metamorphic petrologist concentrating on geochronology. The size of our faculty is indeed growing significantly and should continue to do so over the next year.

Our student body has also grown significantly. Expanded recruiting of new undergraduate majors has been successful, resulting in another jump in the number of geology majors**.** At the graduate level, large numbers of students graduated last year and went on to excellent jobs, yet the number of current graduate students remains about the same after another successful recruiting season. I must mention that not only have the numbers of students remained healthy, but the quality has remained high as well. Just this spring we learned that our students beat all other schools and received the highest number of GSA and AAPG research grants in both organizations' multinational competitions. Three students also received best paper acknowledgements at regional and national meetings.

Times are certainly good. International energy needs, and the environmental challenges linked to energy production and use, have created a strong sense of excitement about our Department's work. This has translated into excellent job opportunities for KU students, and some important research directions for KU faculty members. Our growth has come at just the right time.

The successful growth of the Department has also led to tough challenges. We are increasingly spread out across the KU campus, there are mounting demands to provide financial support to students who need help and the teaching and research infrastructure is stretched a bit thin. With your help, though, I am highly optimistic that we will be able to ease the Department through this transition to a larger and even more successful program.

As you read this 2007 edition of the *G-Hawker*, I think that you will agree, this is a great time to be a G-Hawk!

Bob Goldstein, Chair

Fall 2007

In This Issue

Publisher: Robert H. Goldstein
Editor: Diane Silver
Assistant: Liz Gravatt
Layout: Paula Courtney
Department Historian: Dan Merriam
Contributors: Rex Buchanan, Doug Walker, Scott Adams, William D. Pollard

Features

Acknowledgements: The Department of Geology and editor extend a heartfelt thank you to Paula Courtney at the CLA&S Digital Media Services for layout assistance; the Kansas Geological Survey for news and photographs; the Spencer Research Library for photographic and illustration assistance; the Department faculty, staff, students and alumni who helped with research and photographs; and the KU Alumni Association for help in contacting alumni.

Cover Photo: Lee Gerhard, Kansas Geological Survey (www.kgs.ku.edu)

Photos courtesy of: Cynthia Keeffe, inside cover; Tony Walton, pp. 1, 2, 46, 68; Alison Olcott, p. 16; Andreas Moller, p. 17; Randy Van Schmus, pp. 18 – 19; Douglas Walker, pp. 22-23; Paleontological Institute, pp. 20-21; K. David Newell, p. 24 and John Charlton, p. 26, Kansas Geological Survey; David McBride, p. 34; Sarah Darby, p. 37.

The *G-Hawker* is published annually by the University of Kansas Department of Geology as a resource for alumni and friends. Contact information for the Department is 1475 Jayhawk Blvd., 120 Lindley Hall, Lawrence, KS 66045, (785) 864-5628, egravatt@ku.edu, http:/www.geo.ku.edu.

Editorial, publication, and distribution costs are underwritten by the Krueger Fund of the Geology Associates Program of the Kansas University Endowment Association.

Department of Geology Contact Information

Alumni, Geology Associates and other inquiries: Liz Gravatt (see "Support Nucleus" below)
G-Hawker Editor: Diane Silver: dsswriter@sunflower.com 785-766-2187

Departmental Faculty	E-Mail	Phone
Ross A. Black	black@ku.edu	785-864-2740
J. F. Devlin	jfdevlin@ku.edu	785-864-4994 or -2913
Evan K. Franseen	evanf@kgs.ku.edu	785-864-2072
David Fowle	fowle@ku.edu	785-864-2128 or -1955
Robert H. Goldstein	gold@ku.edu	785-864-2738
Luis González	lgonzalez@ku.edu	785-864-2743 or -7750
Stephen T. Hasiotis	hasiotis@ku.edu	785-864-4941
Diane Kamola	kamola@ku.edu	785-864-2724 or -7712
Bruce Lieberman	blieber@ku.edu	785-864-2741
Gwen Macpherson	glmac@ku.edu	785-864-2742
Carl D. McElwee	cmcelwee@ku.edu	785-864-2728
Jennifer Roberts	jenrob@ku.edu	785-864-4997
Paul A. Selden	selden@ku.edu	785-864-7251
Don W. Steeples	don@ku.edu	785-864-2730
Daniel Stockli	stockli@ku.edu	785-864-4995 or -7714
Mike Taylor	mht@ku.edu	785-864-5828
George Tsoflias	tsoflias@ku.edu	785-864-4584
J. Douglas Walker	jdwalker@ku.edu	785-864-2735 or -7711
Anthony W. Walton	TWalton@ku.edu	785-864-2726
Museum of Invertebrate Paleontology		
Jill Krebs	jilkrebs@ku.edu	785-864-2747
Emeritus Faculty		
Ernest E. Angino	rockdoc@sunflower.com	785-864-2736
Louis Dellwig	(none available)	785-897-5518
Wakefield Dort, Jr.	(none available)	785-864-2729
Paul Enos	enos@ku.edu	785-864-2744
William W. Hambleton	wwhamble@ku.edu	785-864-3965
Richard A. Robison	rrobison@ku.edu	785-864-2739
Albert J. Rowell	arowell@ku.edu	785-864-2747
W. R. Van Schmus	rvschmus@ku.edu	785-864-2727 or -3676
Paleontological Institute		
Mike Cormack	msc@ku.edu	785-864-2737
Jill Hardesty	jillh@ku.edu	785-864-2737
Jane Kerns	valley@ku.edu	785-864-2737
Jill Krebs	jilkrebs@ku.edu	785-864-3636
Denise Mayse	dmayse@ku.edu	785-864-3338
Support Nucleus		
Jason Ash	jasonash@ku.edu	785-864-2750
Greg Cane	gcane@ku.edu	785-864-7750
Jenna Coker	jcoker@ku.edu	785-864-4976
Yolanda Davis	yolanda@ku.edu	785-864-4975
Elizabeth K. Gravatt	egravatt@ku.edu	785-864-5628
Sally Hayden	srhayden@ku.edu	785-864-2730
Jonathan Hendricks	jrhendri@ku.edu	785-864-2733
Eileen Jones	eejones@ku.edu	785-864-2002
Roman Kislitsyn	rksilits@ku.edu	785-864-7657
Ian Rowell	i-rowell@ku.edu	785-864-2732
Lisa Stockli	lstockli@ku.edu	785-864-2725 or -7714
Gwethalyn Williams	lys@ku.edu	785-864-4974
Courtesy & Adjunct Faculty		
James M. Butler	jbutler@ukans.edu	785-864-2116
John D. Doveton	doveton@kgs.ukans.edu	785-864-2100
Gisela M. Dreschhoff	giselad@ku.edu	785-312-5363
Lee C. Gerhard	lgerhard@ukans.edu	785-864-2195
John Gosse	jcgosse@is.da..CA	902-494-6632
John W. Harbaugh	(none available)	785-864-4974
Leonard Krishtalka	krishtalka@ku.edu	785-864-4540
Rolfe Mandel	mandel@ku.edu	785-864-2171
Larry D. Martin	ldmartin@ku.edu	785-864-5639
Michael T. Meyer	mmeyer@usgs.gov	785-864-3965
Richard Miller	rdmiller@ku.edu	785-864-2091
Marios A. Sophocleous	marios@kgs.ukans.edu	785-864-2113
Edith Taylor	etaylor@ku.edu	785-864-3621
Thomas N. Taylor	tntaylor@ku.edu	785-864-3625
W. Lynn Watney	lwatney@ku.edu	785-864-2184
Donald Whittemore	dwhitt@ku.edu	785-864-2182

Luis Gonzalez contemplates a formation

Faculty and Staff: Academic Year 2007-2008

FACULTY

ROSS A. BLACK, Associate Professor; Ph.D., University of Wyoming, 1990; geophysics, reflection seismology.

J. F. DEVLIN, Associate Professor; Ph.D., University of Waterloo, 1994; hydrogeology/contaminant transport.

EVAN K. FRANSEEN, Associate Professor, Ph.D., University of Wisconsin, Madison, 1989; Sedimentology, sequence stratigraphy, and diagenesis of carbonate and siliciclastic strata.

DAVID A. FOWLE, Assistant Professor; Ph.D., University of Notre Dame, 2000; geomicrobiology, aqueous geochemistry, limnology.

ROBERT H. GOLDSTEIN, Merrill W. Haas Professor and Chair; Ph.D., University of Wisconsin, 1986; sequence stratigraphy, diagenesis, fluid inclusion studies of carbonates.

LUIS GONZÁLEZ, Associate Professor; Ph.D., University of Michigan, 1989; stable isotopes, carbonate geochemistry, and diagenesis, paleoclimate.

STEPHEN T. HASIOTIS, Associate Professor; Ph.D., University of Colorado at Boulder, 1997; paleontology, ichnology, sequence stratigraphy, terrestrial paleoecology.

DIANE KAMOLA, Associate Professor; Ph.D., University of Georgia, 1989; sequence stratigraphy, basin analysis, clastic sedimentology.

BRUCE S. LIEBERMAN, Professor; Ph.D., Columbia University, 1994; paleontology, Cambrian radiation.

GWENDOLYN L. MACPHERSON, Associate Professor; Ph.D., University of Texas at Austin, 1989; hydrogeology.

CARL D. McELWEE, Professor; Ph.D., University of Kansas, 1971; physical hydrogeology, geophysics.

JENNIFER ROBERTS, Associate Professor; Ph.D., The University of Texas at Austin, 2000; microbial hydrogeology.

PAUL A. SELDEN, Gulf-Hedberg Distinguished Professor, Director of the Paleontological Institute; Ph.D., Cantab, 1979; paleobiology of arthropoda (especially Chelicerata and Mirapoda), fossil spiders and their relatives, terrestrialization, paleoecology.

DON W. STEEPLES, McGee Distinguished Professor and Vice Provost; Ph.D., Stanford University, 1975; shallow seismic reflection, crustal analyses, and microearthquake recording.

DANIEL STOCKLI, Associate Professor; Ph.D., Stanford University, 1999; thermochronology, structural geology.

MIKE TAYLOR, Assistant Professor; Ph.D., University of California, Los Angeles, 2004; neotectonics and continental deformation.

GEORGE TSOFLIAS, Assistant Professor; Ph.D., The University of Texas at Austin, 1999; geophysics, hydrogeophysics, ground-penetrating radar.

J. DOUGLAS WALKER, Professor; Ph.D., Massachusetts Institute of Technology, 1985; structural geology, geochronology, tectonics.

ANTHONY W. WALTON, Associate Professor; Ph.D., University of Texas at Austin, 1972; sedimentology of siliciclastic and volcaniclastic rocks.

MUSEUM OF INVERTEBRATE PALEONTOLOGY

JILL KREBS, Collection Manager; BA, English, University of Kansas, 1968.

EMERITUS FACULTY

ERNEST E. ANGINO, Emeritus Professor; Ph.D., University of Kansas, 1961; geochemistry.

LOUIS F. DELLWIG, Emeritus Professor; Ph.D., University of Michigan, 1954; structural geology, geology of evaporites.

WAKEFIELD DORT, **Jr**., Emeritus Professor; Ph.D., Stanford University, 1955; geomorphology, Pleistocene geology, archaeological geology.

PAUL ENOS, Emeritus Distinguished Professor; Ph.D., Yale University, 1965; carbonate geology.

WILLIAM W. HAMBLETON, Emeritus Professor; Former Director – KGS; Ph.D., University of Kansas, 1951.

RICHARD A. ROBISON, Emeritus Professor; Ph.D., University of Texas at Austin, 1962; paleontology.

ALBERT J. ROWELL, Emeritus Professor, Senior Curator, Museum of Invertebrate Paleontology; Ph.D., Leeds, 1953; quantitative methods in geology. Paleontology, Antarctic geology.

WILLIAM R. VAN SCHMUS, Emeritus Distinguished Professor; Ph.D., University of California at Los Angeles, 1964; geochemistry, meteorites, geochronology.

PALEONTOLOGICAL INSTITUTE

MIKE CORMACK, Information Specialist; Ph.D., Philosophy, University of Kansas, 1999.

JILL M. HARDESTY, Assistant Editor; BA, French; BS, Secondary Education, University of Kansas, 1988; MA, Art History, University of Kansas, 1992.

JANE L. KERNS, Assistant Editor; MS, Music, Boston University, 1966.

JILL W. KREBS, Assistant Editor; BA, English, University of Kansas, 1968.

DENISE MAYSE, Office Manager; BS, Business Administration, Mars Hill College, 1980.

SUPPORT NUCLEUS

JASON ASH, Information Specialist I, 2006.

GREG CANE, Laboratory Manager, 2007-present.

JENNA COKER, Office Manager, 2001-present.

YOLANDA DAVIS, Student Affairs Manager, 1998-present.

ELIZABETH K. GRAVATT, Alumni Coordinator, 1998-present.

SALLY HAYDEN, Research Assistant, 2004-present.

JONATHAN HENDRICKS, Post-Doctoral Associate in Paleontology, 2005.

EILEEN JONES, Information Specialist, 2007-present.

ROMAN KISLITSYN, Laboratory Technician, 2007-present.

IAN J. ROWELL, Information Specialist, 1981-present.

LISA D. STOCKLI, Laboratory Manager, 2001-present.

GWETHALYN WILLIAMS, Front Office Assistant, 2002-present.

COURTESY & ADJUNCT FACULTY

JAMES. M. BUTLER, Senior Scientist, KGS.

JOHN H. DOVETON, Senior Scientist, KGS.

GISELA M. DRESCHHOFF, Principal Investigator.

EVAN K. FRANSEEN, Senior Scientist, KGS.

LEE C. GERHARD, Principal Geologist, KGS.

JOHN GOSSE, Associate Professor, Dalhousie University.

JOHN W. HARBAUGH, Professor Emeritus, Stanford University.

LEONARD KRISHTALKA, Director, Natural History Museum & Biodiversity Res. Ctr.; Professor, Ecology & Evol. Biology.

ROLFE MANDEL, Senior Scientist, KGS.

LARRY D. MARTIN, Professor, Ecology & Evolutionary Biology; Sr. Curator, Natural History Museum & Biodiversity Res. Ctr.

MICHAEL T. MEYER, Hydrologist, USGS.

RICHARD MILLER, Associate Scientist, KGS.

KIRSTEN P. NICOLAYSEN, Assistant Professor, Kansas State University.

MARIOS A. SOPHOCLEOUS, Senior Scientist, KGS.

EDITH TAYLOR, Professor, Ecology & Evolutionary Biology; Curator, Natural History Museum & Biodiversity Res. Ctr.

THOMAS N. TAYLOR, Distinguished Professor, Ecology & Evolutionary Biology; Curator, Natural History Museum and Biodiversity Res. Center.

W. LYNN WATNEY, Senior Scientist, KGS.

DONALD O. WHITTEMORE, Senior Scientist, KGS.

News Briefs

The Most Unforgettable Character

G-Hawker historian extraordinaire Dan Merriam (BS '49, MS '53, PhD '61) has finished a 170-page biography of R.C. Moore — the man Merriam calls the most unforgettable character he has ever met. Merriam's doctoral dissertation is among the many Moore supervised during his nearly 60 years at KU.

Entitled *Raymond Cecil Moore: Legendary Scholar and Scientist, World-Class Geologist and Paleontologist*, the book examines the complex life and personality of the late KU geology professor. Moore was also director of the Kansas Geological Survey and the founder of *The Treatise on Invertebrate Paleontology*.

"The old man would have enjoyed reading it," says William Fisher (PhD '61), a former student of Moore's and the Leonidas T. Barrow Centennial Chair in Mineral Resources at the University of Texas at Austin

John Harbaugh (BS '48, MS '50), another former student and professor emeritus at Stanford University, calls the book "nicely written."

"It is loaded with interesting details and illustrations and is easy reading," Harbaugh says.

The book has been published by the Department of Geology and the Paleontological Institute (Special Publication #5, 2007). It can be purchased by sending a check and your address to The Paleontological Institute, The University of Kansas, 1475 Jayhawk Blvd, Rm. 119, Lawrence, KS 66045-7613. For U.S. residents, the cost is $27.50. International customers can determine the cost by e-mailing paleo@ku.edu.

Rocking the Mid Continent

Nearly 20 faculty researchers from the Department of Geology and the Kansas Geological Survey presented at the September 2007 American Association of Petroleum Geologists Mid-Continent Section Meeting in Wichita.

Among the notables were Lynn Watney, senior scientific fellow at KGS, who served as session co-chair. Don Steeples, McGee Distinguished Professor of Applied Geophysics, gave one of three keynote addresses.

Called "Some Stupid Shallow Seismic Experiments I Have Done," Steeples' talk took note of the fact that near-surface and classical seismic exploration obey the same laws of physics. However, the relative importance of those laws differs in the two types of surveys.

"These differences have led to some eccentric experiments with unexpected and occasional serendipitous outcomes," Steeples wrote. "Progress attained by our research group has occurred through a mixture of stupid experiments that turned out to be clever, and clever experiments that turned out to be stupid."

Get Involved! Yes, WE MEAN YOU.

This is your chance to connect with geology students and to put your indelible STAMP on KU. Volunteer for our Student To Alumni Mentoring Program (aka STAMP).

As a mentor to KU geology students, you will act as an informal advisor and help guide students through the perplexing quest to become a professional and find a job. You can also help them learn about the joys and challenges of your work.

The STAMP program is the brainchild of the Geology Associates Advisory Board and has been spearheaded by board members Ron Wallace and George Stanley, key geology faculty members and the student representative to the board, Steve Schurger.

To sign up to become a mentor, visit www.geo.ku.edu/~geology/mentors or mail or e-mail your name and contact information to Liz Gravatt at:

Department of Geology
1475 Jayhawk Blvd.
120 Lindley Hall
The University of Kansas
Lawrence, KS 66045.
egravatt@ku.edu

Adventures in Medialand

Assistant Professor George Tsoflias gives *Washington Post* reporter Doug Struck a B+ for his June 9, 2007, story that turned the KU geologist into a media star.

Writing about the work of Tsoflias and scientists from KU's CReSIS (Center for Remote Sensing of Ice Sheets), the reporter journeyed to the Jakobshavn Glacier in Greenland. Although other scientists are also quoted, a parka-clad Tsoflias was the topic of the first paragraph of the story, the photos and accompanying online video.

The reporter did a good job of explaining the science, Tsoflias says, but he flubbed the timing of his visit. The story implied that Tsoflias was collecting data when the reporter was on the scene.

"I was out there to show him what the equipment looked like," Tsoflias says. "I wasn't actually collecting data when he was there. We started a few days later."

A Commitment to Excellence

Associate Professor Steve Hasiotis of geology and Professor Edith Taylor of ecology and evolutionary biology have made a strong commitment to hands-on editing of the journal PALAIOS. The two are working to change the look of the journal and give it a uniform style. They took over this international journal of the Society for Sedimentary Geology in 2006.

G-Hawks Connect

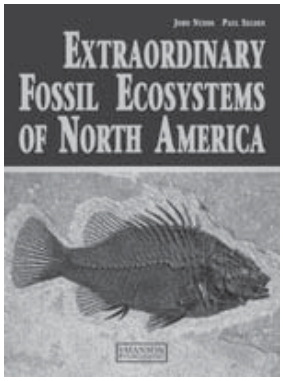
You might call this a field camp for the Internet Age, but happily there won't be any assignments. The Department has just built a virtual cabin at Facebook, one of the fastest growing social networking sites in the world.

The G-HAWK group is a forum to help alumni and friends of the Department stay in touch, find lost friends and stay posted on what's happening on Mount Oread.

To join the group, become a member of Facebook at www.facebook.com (It's free). After that, go to ku.facebook.com/group.php?gid=2609437059. Click on "Request to Join Group," which can be found just below the yellow boots of the G-Hawk. If you have any problems joining, please contact group administrator Liz Gravatt at egravatt@ku.edu or (785) 864-5628.

As we go to press, the G-Hawk group has just been formed and has 28 members. The entire KU network, or "Kansas" network as it is known on Facebook, has nearly 35,000 members.

In Search of Fossil Heaven



The new director of the Paleontological Institute is starting his first full year at KU with the publication of a book.

Institute Director Paul Selden and a British colleague John Nudds collaborated on *Fossil Ecosystems of North America: A Guide to the Sites and Their Extraordinary Biotas*. Co-published in September by the University Of Chicago Press in the U.S. and Manson Publishing Ltd in Great Britain, the volume is the second book on the topic written by Selden and Nudds.

The 288-page book is a guide to 14 North American "*Fossil-Lagerstätten*" – a German word that translates into "fossil bonanza." The peculiar environments of these sites preserve organisms like jelly fish and spiders that usually decay, Selden says.

"These sites give us snapshots of the total ecology of life at the time," Selden says.

Including Mistaken Point in Newfoundland, Mazon Creek in Illinois and Rancho La Brea in Los Angeles, the book highlights each site. The fossil findings are placed in geologic and evolutionary context and the authors describe the history of research in the area. The book also includes an appendix of museums where readers can see specimens from the locations and suggestions for visiting the sites.

Faculty Update

Ross Black
Associate Professor

This has been a fine year. Marty Dubois graduated (PhD '07). He educated all of us during his tenure here as a graduate student. I just got back from SEG and ran into several old students doing well, including Brian Macy (PhD '06) who is in Houston working in the imaging research group at ConocoPhillips and Matt Ralston (PhD '03) who now has a beautiful 1-year-old daughter. He and Natasha are expecting their second child this fiscal year.

On the research side, I am still mainly working in the western U.S. We have been shooting seismic reflection and GPR surveys across active faults which cut alluvial fans at basin margins. The GPR is very efficient and can be run in 3-D or 2.5-D mode. This allows fault splays, unmappable at the surface, to be located with confidence. The seismic data then allows the faults to be traced in depth through the fans. This should help us make more accurate estimates of total deformation by including the "off fault" component, not accounted for when simply mapping the large offsets along the main exposed fault scarps. That, in turn, should help with assessment of seismic hazards.

We also have some oil related projects going, mainly looking at using near-surface seismic reflection data to enhance statics corrections in desert environments in the Middle East.

I am still teaching many of the geophysics classes in the Department, along with History of the Earth. I never get tired of trying to figure out a way to explain Fourier transforms to the uninitiated.

J.F. Devlin
Associate Professor

After teaching six years at KU, I feel like this past 12 months were somewhat under control. The Geomorph labs and trips were in order, Environmental Geology went extremely well its sophomore year and contaminant transport was like an old friend. This can only mean that something is going to change. Indeed, big changes are planned for the hydrogeology graduate curriculum in 2008, but I am getting ahead of myself.

In 2006 I took my Geomorph class on the inaugural karst field trip in Missouri. This trip afforded the students a chance to observe both surface and subsurface expressions of karst. The trip was enormously popular and may have had something to do with the fact that the size of the class more than doubled this fall. The 2007 trip was equally successful.

This past year, I collaborated with Dr. Allen Macfarlane of the KGS in testing new software to teach introductory hydrogeology. Improvements to the software are planned and another group of volunteers will likely be sought in 2008.

On the research front, "progress" is the word. Huang Bei is still conducting dechlorination kinetic experiments in batch and column. We anticipate publication quality data in the next few months.

Peter Schillig will complete his master's degree this fall. His work on the use of point velocity probes and GPR to track changes to an aquifer during bioremediation of hydrocarbons has been a resounding success. His PhD research will begin immediately after his master's defense this fall.

In 2006-2007, I had the pleasure of working with several very talented undergraduates. Ian Bowen continued to perform experiments with granular iron, trying to evaluate the effect of anion mixtures on iron reactivity. He will complete his BS thesis this year. Jaqueline Grunau rejoined the group as an assistant to Huang Bei. Neil Kinnebrew and Shawn Showman were employed to assist Schillig with some computer processing. Elisheva Patterson was enlisted to work on a laboratory experiment aimed at duplicating the conditions and instrument responses of PVPs and GPR in a bioactive sand aquifer (a laboratory tank in this experiment). All of these efforts appear to be bearing fruit. I look forward to reporting the results in the *G-Hawker* next year!

Paul Enos
Distinguished Professor Emeritus

What are the fossils doing? This retired faculty member tries to attend all of the quasi-weekly Department colloquia and complete various projects that were put on the back burner during active teaching. The front burner was finally cleared with publication in December of GSA Special Paper 417, "Triassic Evolution of the Yangtze Platform in Guizhou Province, China."

Five former KU students, from undergrad to postdoc, collaborated on the project, as well as three

Chinese colleagues. Dan Lehrmann (PhD '93) and Marcello Minzoni (PhD '07) completed dissertations in the area, and Dan was co-investigator on the major funding. Other active research continues on the Lofer cycles in the Austrian Alps. I plan to collaborate on studying an intriguing, widespread carbonate breccia in Croatia.

Most of the back-burner projects started in sedimentology classes, both graduate and undergraduate. In the late 1980s, it became possible to involve students in small projects and to carefully edit their reports. These evolved into projects in which each student would contribute a part, e.g. a measured section, prepare a report on pooled data from the class and revise the report after journal-style editing. The dream was to produce publishable research.

None appeared quite ready to submit, even after additional work by the best students in a subsequent semester. If nothing else, these were lessons in the effort needed to produce mature research. However, a number of the projects can be significant contributions with a little polishing. That's what I'm working on now. Some of you former students out there may be (pleasantly?) surprised to finally be co-authors of that project we labored on back then.

David Fowle
Assistant Professor

It has been a great year in the Fowle lab. We had two field outings in the past year, one to Barro Colorado Island in Panama and to Sulawesi in Indonesia.

I spent a week in Panama studying the relationships between soil microbial ecology and metal mobility with graduate students Ezra Kulczycki and Melissa Marietta.

I also spent a month in Indonesia with my students Sean Crowe and Arne Sturm, our colleagues from LIPI in Jakarta and from McGill University in Canada. Most of this time was spent on Lake Matano, our study site that is located beside significant laterite Ni resources. Ongoing projects on the lake include studying methane accumulation, anoxygenic photosynthesis and chromium cycling.

This ancient lake may turn out to be one of the world's most important study sites for interpretation of the Earth's oceans and global climate change, as our recent shallow seismic survey revealed hundreds of meters of sediments to study. Several manuscripts are coming out this year on these topics as my first PhD student, Sean Crowe, prepares to graduate this fall. Our time in Indonesia also kindled a new collaboration with Don Canfield's lab in Denmark. One of his students, Carri-Ayne Jones, spent most of the summer in our lab at the MRB on West Campus.

Research productivity and funding is looking up this year with an NSF grant funded and several contracts with mining companies nearing the final stages of negotiation. We had a lovely paper in the Proceedings of the National Academy of Sciences tying gene expression and methane oxidation in microbes with mineral weathering (with Jennifer Roberts). We will be following it up with a number of high profile papers that we will share with you next year.

Bob Goldstein
Department Chair and Merrill W. Haas Professor

Last year was quite enjoyable, especially as I seem to be getting used to keeping quite a number of balls in the air at the same time. I continue to serve as Department chair, and I truly enjoy most days at that job. I normally am able to go home at the end of the day feeling as if I have done some good for our students, faculty, staff and the Department. This is made easier by having a large number of loyal alumni, excellent students and staff and enthusiastic faculty. It is really quite remarkable sometimes; our students and faculty accomplish so much during the year that it is hard not to feel significantly proud of what our G-Hawk family does.

Research and teaching have been going well. I continue to teach Carbonate Depositional Systems and Stratigraphy to an enthusiastic group of students. I have not been able to teach Introduction to Geology since starting as chair, and I miss it. I had some strong graduate students finish up last year including Jessica Ludwig (co-chair with Franseen), and Marty Dubois (co-chair with Black).

Spring and summer involved quite a bit of travel to present research findings and to do field work. I started off at the AAPG meeting in Long Beach, Calif. Among other presentations, I was given a half-hour slot to discuss the future of carbonate diagenetic studies relative to carbonate reservoir rocks. This was particularly enjoyable, as there is quite a bit one can say in a double time slot. Evan Franseen and I headed off to Spain at the end of the semester to lead our

annual AAPG field seminar and to introduce a new student to his field area.

The AAPG course filled up early this year and ended up with a waiting list, an indication of how important the industry views these educational opportunities. The field work was followed by a trip to Madrid to present a seminar on hydrothermal porosity enhancement and then a return back home to Baltimore. Later in the summer, Cindy and I traveled to Switzerland so I could attend another meeting and present a talk on "Changing Paradigms in Carbonate Diagenesis." While there, we had a great visit to the KU Geology "Alpine Campus" with Danny Stockli and his family, who are on sabbatical.

Steve Hasiotis
Associate Professor

The last academic year and summer were quite busy for me and my undergraduate and graduate student research group. For the year, I taught Historical Geology (History of the Earth), Ichnology, Introduction to Paleontology and two sections of the IchnoBioGeoScience Seminar.

I gave several colloquia and participated in research on modern dryland fluvial-lacustrine systems in the Simpson Desert in Australia. Various students and I attended the fall 2006 GSA meeting in Philadelphia, Pa.; the spring 2007 AAPG meeting in Long Beach, Calif., where John Counts and I received the SEPM Honorable Mention for Best Poster; and the International Ichnofabric Workshop in Calgary, Canada.

This summer, I taught the first session of field camp, and I was able to conduct fieldwork in Australia, Alaska, Colorado, Kansas and Utah. I was privileged to spend a good part of the last year with Roger Kaesler. I was most honored to be with my best friend during his final moments, shared with his beloved wife, Jeri; his daughter, Jane; stepdaughter Susanne; granddaughter Gabrielle and Molly, the pug. Many events this past year lend themselves to quiet reflection, reaffirming that we go forward and keep in mind those things we hold most dear to us.

Diane Kamola
Associate Professor

My research continues in stratal architecture of sedimentary basins, sequence stratigraphy and detailed facies studies of deltaic deposits. During the past academic year, we welcomed two new students, Bekah Ost and Bethiah Hall.

Bekah's interests are in basin analysis and stratigraphy. Her thesis extends my on-going work on stratal packaging within foreland basins to the non-marine realm. She has started work on stratal patterns in the final stage of foreland basin fill, with a detailed stratigraphic study on the Cretaceous Hunter Canyon (Williams Fork) Formation in western Colorado. Her study adds to my growing database of stratal patterns in foreland basin settings.

Bethiah is developing a facies model for tidally influenced deltas by studying deltaic successions in the Triassic Moenkopi Formation in southern Utah. Her work adds to studies in-progress by fellow students Hayet Serradji and Nazim Louni, both also working on deltaic successions.

Hayet is working on the Cretaceous Dakota Sandstone, in picturesque southwestern Colorado, near Ridgway. Hayet presented her work at AAPG's student poster session this year and had great feedback. Nazim is finishing up his study of emplacement mechanisms of deltaic sands, via a study of the Cretaceous Panther Tongue in central Utah.

This fall, I will co-lead a GSA field trip on high resolution sequence stratigraphy of the Mount Garfield Formation in the Grand Junction area of Colorado, with former students Andrew Madof and Mustapha Zater.

Bruce S. Lieberman
Professor

The past year has been enjoyable, featuring a variety of good news. First, I've appreciated the opportunity to work with and get to know our newest faculty arrival, Paul Selden, the new Gulf-Hedberg Distinguished Professor and director of the Paleontological Institute. It's been great having Paul around. I look forward to many fruitful years working with him.

On the research front, I recently learned that I've been awarded a three-year NSF grant through systematic biology to study evolutionary and biogeographic patterns in an important group of Ordovician to Devonian trilobites. Apparently this is the first time this particular panel within biology has funded a paleontology project. The project will also support a graduate student.

I continue to work with my post-doc Jon Hendricks, who is doing exciting work investigating

evolutionary and biogeographic patterns in Burgess Shale biotas.

I have also enjoyed working with graduate students Francine Abe, studying the nature of evolutionary radiations in the fossil record, and Curtis Congreve, who is investigating evolutionary patterns and processes during the late Ordovician mass extinction.

I have welcomed two new students this fall: Corinne Myers, a master's student from Brown University, and Wes Gapp, a bachelor's student from Maine Maritime Academy.

One of my many recent projects is documenting the evidence for periodicity in mass extinctions. This research has provided additional evidence that there are cycles in the fossil record on time frames of roughly 62 million years. The work was featured on MSNBC.com. I also appeared in a National Geographic episode this past fall and was on air once more this fall.

This fall also included some fun travel. I got to visit Genoa, Italy, as part of a symposium on macroevolution at the Festival della Scienza.

Finally, I organized a symposium in honor of Roger Kaesler's career at the GSA sectional meeting in Lawrence in April. It was a joy and privilege to welcome many of Roger's friends, students and colleagues back to KU where they provided a stirring tribute to the outstanding career of Roger. Afterwards, Roger's wife, Jeri, hosted a small party at their house. The event was obviously bittersweet, but it was great to get to honor Roger in this way.

Carl McElwee
Professor

In fall of 2006 I taught Finite Difference Methods and continued to teach the Environmental Geology class at the Edwards Campus. The finite difference modeling course had a mix of hydrogeology, geophysics and engineering students. It continues to be my favorite class to teach, and I hope to finish writing a textbook on the subject.

The Environmental Geology class is interesting, but challenging because I have everything from geology majors to students with no previous geology experience. It is difficult to keep everyone interested and involved at the appropriate level.

In spring of 2007 I taught Physical Hydrogeology at the Edwards Campus. That course continues to attract hydrogeology, engineering and nontraditional students. Invariably, I have a couple of people who are working full time and trying to work on a graduate degree.

Field work and data analysis continues at a brisk pace for the hydraulic tomography research project funded by SERDP. We have had presentations of that work at the SERDP Technical Symposium, the Fall AGU meeting in San Francisco and the Spring AGU meeting in Acapulco, Mexico. Brian Wachter continues to make progress toward finishing his master's degree on this project and will be presenting his work at a couple of meetings this fall.

This fall is the beginning for a new era for me. I am taking phased retirement and will be 50 percent time for a while before retiring fully.

Gwen Macpherson
Associate Professor

My work at the Konza Tallgrass Prairie Long-Term Ecological Research site continues with new ideas about the carbon dioxide in groundwater. Presentations at GSA and AGU last fall and a manuscript ready to submit all address the increasing alkalinity and cations in groundwater over the past 16 years. What does it mean? I think it means that groundwater is a sink for carbon dioxide, and this is an exciting new aspect of the importance of water-table aquifers.

I continue to run the Plasma Analytical Lab, analyzing my samples, samples from other researchers on campus and samples from colleagues at other universities.

My family manages to spend a little time in Montana each summer, getting away from the mid-continent heat. We are looking at alternative energy sources for that house, and enjoying the change of pace that comes with building one's own home. Come visit, if you get a chance!

Jennifer Roberts
Associate Professor

We've had a great year in the Geomicrobiology Lab. The new lab space is still fabulous and we were fortunate to have Shell co-fund a new ICP-OES, which has greatly improved our analytical capabilities and our productivity.

The students had a particularly productive year. PhD student, Ezra Kulczycki, has been working on the role of Cu geochemistry in regulating methane oxidation. Along with collaborators at Newcastle

University, Ezra, Dave Fowle and I published this work in the Proceedings of the National Academy of Sciences. Ezra's photomicrograph of methanotrophic bacteria made the cover of the issue. In August, Ezra's premier first-authored publication appeared in the journal *Geobiology*. Ezra is currently churning out more data and should be graduating in the next year.

Paul Kenward, also a Ph.D. student, has made progress on his dissertation studying the role of methanogens in the precipitation of dolomite at low temperature. Paul gave a great talk at Fall AGU in December and presented another aspect of his research at AAPG in Long Beach. We welcomed another experimental carbonate geochemist onto the dolomite team in May. Darren Welch finished his BS in chemistry at KU in May and began experiments in Luis's lab the following week.

Brena Mauck, a former post-doctoral associate in the lab and current faculty member at the College of St. Mary in Omaha, Neb., had her research on the mineralogic control on microbial colonization published in *Geomicrobiology Journal* in April. MS student Melissa Marietta completed her fieldwork in Panama in January, collecting samples to investigate chromium and arsenic release from some of the original pressure treated lumber installed on Barro Colorado Island nearly 80 years ago. After a summer interning at Burns and McDonnell in Kansas City, she is running her samples in the lab and is on her way to graduating next year.

Paul A. Selden
Gulf-Hedberg Distinguished Professor
Director of The Paleontological Institute

I started at KU on Jan. 1, 2007, when Lawrence almost immediately plunged into its first ice storm of the season. Coming from the UK, where global warming has been producing increasingly milder winters over the past couple of decades, this came as quite a shock.

This year has been very busy, with a number of research activities as well as learning about the Paleontological Institute and getting to know the staff and how everything works. In September, I presented my Distinguished Professor Inaugural Address. This was followed by the traditional dinner hosted by the provost and the dean of the College of Liberal Arts and Sciences.

I attended a meeting in Vitoria-Gasteiz, Spain, in May. The meeting is called Fossils X3, and is the now established amalgamation of the meetings of the International Congress of Palaeoentomology, World Congress on the Amber Inclusions and International Meeting on Continental Palaeoarthropodology. I co-chaired the session on Biodiversity, Ecology and Taphonomy. In August, I attended the 17th International Congress of Arachnology, held in São Paulo province, Brazil. At this meeting, I retired as past-president, presented a talk on Jurassic spiders from China and chaired the session on evolution.

Research, primarily on Mesozoic spiders, continues, though the laboratory remodeling took longer than anticipated. I took on a keen new graduate student, Erin Saupe, who is exploring the world of amber spiders. We are presently studying an intriguing specimen from the Cretaceous of France. A new postdoctoral worker, Vincent Perrichot, will start on Jan. 1, 2008. He also studies amber inclusions.

I taught Prehistoric Life for the first time this summer and again in the fall.

Next semester I am offering Fossil Ecosystems, a course looking at the major Fossil-Lagerstätten (exceptionally preserved biotas), such as the Burgess Shale, Morrison Formation and Florissant Fossil Beds. The course reading will be my two textbooks on the subject.

Meanwhile, I'm excited that plans for digitization of the Paleontological Institute publications are under way.

Don Steeples
McGee Distinguished Professor of Geophysics
Vice Provost for Scholarly Support

Don Steeples has spent much of fall 2007 traveling the world as a distinguished lecturer for the Society for Exploration Geophysicists.

In that role, Steeples lectures on his research at universities and professional societies. Steeples' topic is near-surface seismic imaging, a method that uses seismic technology to detect clandestine smuggling tunnels, buried faults and underground pathways for groundwater pollutants, as well as the safety of levees.

Steeples is working on an $820,000 Department of Energy grant on automated shallow 3-D seismic imaging. He published seven papers in the last 12 months. One paper, "Acquisition and processing pitfall associated with the clipping of near-surface seismic reflection traces," is in press for publication in *Geophysics*.

Daniel Stockli
Associate Professor

I am composing this from my office on the shores of Lake Geneva, while on sabbatical in Lausanne, Switzerland. Needless to say, it's been and still is an amazing year. Having been awarded a Herbette Visiting Professorship at the Institute of Mineralogy and Geochemistry at the University of Lausanne for the fall, I taught Field Camp in June and then we packed up our things and the kids and moved to Lausanne.

I'm enjoying the opportunity here to collaborate with several faculty members on a variety of geochronological and geochemical projects and to do field work in the Alps and other parts of Europe. It's also great to expose my whole family to my Swiss roots and give my parents time to enjoy my children. So far, we very much enjoy it here, professionally and personally, although we do miss Lawrence and look forward to returning in January.

On a personal note, the year started with the birth of our son, Samuel, our second child, on Jan. 24. Alice, now 2 1/2 years and a seasoned world traveler, is thrilled to have a little brother. My wife, Lisa, retired from managing the IGL U-Pb laboratory, but we were fortunate enough to hire a great replacement just in time. Roman Kislitsyn from Apatity**,** Russia, joined our team in late 2006 and has been a wonderful addition to the laboratory and research group. Having him in the laboratory helps keep me sane, and I feel comfortable not being in the laboratory while on sabbatical. I only occasionally peek and check what the mass specs are doing via the internet. We still have weekly research group meetings via video conference.

On the research front, we successfully built a second He mass spectrometry line with financial aid from the Department, the University and my laboratory fund. The line has been under vacuum and operational since March and is dedicated to diffusion experimental studies. Research and laboratory productivity is increasing, and we are proud to report that we analyzed more than 2,600 samples last year alone and hosted visiting researchers from around the globe. I am surrounded by a group of bright, hard working graduate students in my laboratory. They keep me on my toes and do excellent research both in the field and the laboratory. Our projects span the globe from Tibet to Saudi Arabia, Egypt, Germany and the western United States.

Mike Taylor
Assistant Professor

The last year has been a busy and exciting one full of new discoveries.

For research, I am branching out into the western U.S. With Doug Walker, I'm initiating a neotectonic study of the Garlock Fault using interferometric radar (InSAR) and tectonic geomorphology. We find that although the Garlock fault is essentially dormant today as indicated by InSAR, the geomorphology suggests very recent tectonic activity. The graduate students working on this project and the Eastern California Shear Zone include Willy Rittase, Zack Casey and new graduate student Henry Shenk.

For international research, I am working with colleagues from Arizona and Danny Stockli on a new study on active low angle normal faults. This work documents, for the first time in a continental setting, an *active* low-angle normal fault that bounds a metamorphic core-complex in western Tibet. Interestingly, the hanging wall basin is undergoing active basin inversion through isostatic rebound related to unloading of the footwall. This study raises the possibility that unconformities in hanging-wall sedimentary successions might record the beginnings of core-complex type extension.

These results have been accepted to *Geology* and should be out soon. I'm also processing InSAR data that covers the low-angle normal fault and preliminary geodetic observations and suggest the fault is active today and may be slipping at the surface at 2 mm/yr.

We have also identified a new right lateral strike-slip fault system in west central Tibet – the Lopukangri fault system. With colleagues from the University of Houston, we are addressing the fault geometry, kinematics and how this fault is related to internal deformation of Tibet. These results were presented at the December 2006 meeting of the American Geophysical Union, where I co-chaired a special session on the Dynamics of Orogenic Belts and Continental Plateaus. Overall, 70 papers were presented at four oral and two poster sessions.

I taught an upper division course in Remote Sensing and Plate Tectonics. The remote sensing course covered the basics of image processing. Students performed lab work for a particular site in California and developed a hypothesis. We field tested the hypothesis as a group.

The focus of the field trip was to understand the limitations of interpreting remote sensing imagery. The

plate tectonics course was developed with Doug Walker and Danny Stockli. We covered everything from present to ancient plate kinematics, mantle convection and various tectonic settings, with emphasis on the dynamics driving lithospheric deformation.

George Tsoflias
Assistant Professor

It's been another exciting year at KU. Thanks to the great work of our students, my geophysics program continues to expand. Two more MS level students graduated this past year, Robert Eslick and Mike McGlashan. Rob investigated the use of Love waves in near-surface seismology, and Mike monitored a biodegrading hydrocarbon plume using radar tomography. Both are now in Houston, pursuing careers in exploration geophysics.

My research continues to investigate diverse geophysical problems and affords me the opportunity to collaborate with my KU colleagues. We developed new insights in remotely monitoring saline fluids in fractured formations using ground-penetrating radar (GPR). We are advancing the understanding of how radar waves respond to the growth of bacteria in porous media. We use seismic and GPR methods to image active faults in Western Nevada and Death Valley.

My colleagues and I continue the work in improving near-surface statics in exploration seismic data in Saudi Arabia, and we are nearing completion of our 3-D shallow seismic acquisition instrumentation.

This last year also took us to the Jakobshavn Glacier in Greenland where we tested new equipment and collected data. We camped on top of one-mile-thick ice for 29 days. It was a unique experience, especially for a novice outdoorsman like myself. When I woke up the first morning at -25 degree Celsius temperature in my tent with my toothpaste and sun-screen tubes frozen solid, I knew I was in store for some adventure over the following four weeks. I am looking forward to my expeditions to the Arctic and Antarctic next year.

Doug Walker
Professor

The year has gone great on all fronts. The NAVDAT (navdat.org) and EarthChem (earthchem.org) projects have been progressing well with the addition of Jason Ash and Eileen Jones as programmers. We have run several workshops for these over the last year and are moving to finalize the addition of many samples into the systems. I have also been involved with creating a National Geoinformatics System at the urging of many workers and NSF.

I am working on several field-based projects. George Tsoflias and I were funded through the NSF EarthScope program to work in the Death Valley/ Ridgecrest California area on strike slip faults. This will involve a lot of cosmogenic dating, GPR, and basic field geology. We have two graduate students at KU (Willy Rittase and Zack Casey) and one at PSU working on the project.

I am also starting a collaborative NSF project with Nancy Riggs (NAU) and Andy Barth (IUPUI) on Triassic igneous rocks in northern Mexico. I will be doing mostly geochronology and isotope geochemistry with this project at IGL at KU. I finished a big collaborative project working with pharmaceutical chemists on calcium uptake of various compounds in an attempt to figure out how to fight diseases such as osteoporosis. Bethiah Hall did a bit of work on this project.

Last but not least, I will be starting work on a terrestrial laser scanner/LiDAR facility project with John Oldow (Idaho), Carlos Aiken (UT Dallas), Ramon Arrowsmith (ASU) and Chuck Meertens (UNAVCO). We will be putting together an NSF-funded national facility for teaching about and loaning LiDAR systems to the geoscience community.

Tony Walton
Associate Professor

Tony Walton notes that he has gotten drawn into three things: teaching the field course for beginning geology majors, teaching petroleum geology and studying little tubes that some kind of organism makes in basalt glass.

The big development this year was that after 25 years of trying, he finally figured out how to teach the Petroleum and Subsurface Geology course. Teams of students used on-line data to evaluate Kansas oil reservoirs. The results were good enough that several class members made a presentation to the Kansas Geological Society in Wichita.

Haworth Awards Go to Kaesler and Carroll

Roger Kaesler. MS '62, Ph.D. '65

Academic Haworth Award winner Roger Kaesler touched the hearts and minds of generations and helped advance the field of paleontology through 42 years of dedication.

Kaesler received the Haworth Award before his death in August 2007.

"It is particularly fitting that Roger Kaesler received this award because Roger really did follow in Erasmus Haworth's footsteps," says Bob Goldstein, department chair.

Both received degrees from KU and then served on its faculty. Both were influential researchers and inspiring teachers, colleagues and mentors.

"As a major part of our field camp and the field camp director, Kaesler was the pied piper of field geology for hundreds of young geologists," Goldstein says.

Associate Professor Bruce Lieberman says Kaesler's contributions were almost too numerous to count.

"There were hundreds of scientific papers, including pioneering work in the study of climate change and evolution, and multivariate statistical analyses of fossils," Lieberman says, "the successful training of generations of students; and above all, his tireless work and distinguished service to KU and paleontology through the *Treatise on Invertebrate Paleontology*."

After earning a bachelor's in geological engineering from the Colorado School of Mines in 1959, Kaesler came to study at KU. He joined the faculty in 1965. He retired in 2006.

Kaesler taught classes in Paleontology and Prehistoric Life. Besides his leadership of field camp and work on *The Treatise*, Kaesler was a curator at the Natural History Museum and Biodiversity Research Center and director of the Paleontological Institute.

Kaesler was a fellow of the American Association for the Advancement of Science, the Paleontological Society and the Geological Society of America. He was honored with the GSA Distinguished Service Award and the Distinguished Alumni Award and Van Diest Medal from the Colorado School of Mines.

Cynthia Carroll. MS '82

Industrial Haworth Award Winner Cynthia Carroll started her career as a petroleum geologist in the American West. Today Forbes ranks her as the 7th most powerful woman in the world.

That puts Carroll just six steps below German Chancellor Angela Merkel, and only three ranks below Secretary of State Condolezza Rice.

Named in 2006 as the chief executive officer of London-based Anglo American, Carroll runs the world's third-largest mining company, which is also the world's largest platinum producer.

"She is a powerhouse in the world of commodities, a sector crucial to the world's economy," Suzanne Hoppough wrote in the Aug. 30, 2007, Forbes. "And within the corridors of world governments, she is a force to be reckoned with."

Anglo American's roots are in South Africa. Carroll is the first CEO to come from outside of Anglo American in the corporation's 90-year history, the first from outside of South Africa and the corporation's first female leader. Carroll is a citizen of the United States.

Carroll says she is pleased to receive the Haworth.

"I am deeply honored to have been awarded the Erasmus S. Haworth Distinguished Alumni Award by the Geology Department, which I am delighted to accept," she says.

After earning her master's at KU and an MBA at Harvard University, Carroll worked for about five years in oil and gas exploration in Colorado, Alaska, Wyoming, Utah and Montana.

Before joining Anglo American, Carroll spent 18 years in the aluminum industry, ending as president of Alcan Primary Metal Group. At Alcan her responsibilities included all of the corporation's primary metal facilities, research and development and technology and power generation. She was responsible for 18,000 employees operating in 20 countries.

In 2006 Alcan's Primary Metal Group accounted for about $12 billion in turnover and 75 percent of Alcan's earnings. *The New York Times* reports that Carroll was a major force behind the integration of Pechiney, the French aluminum producer that Alcan purchased in 2003.

Established in 1949 to recognize outstanding KU geologists, Erasmus Haworth Distinguished Alumni Award recipients are chosen annually by the Department of Geology faculty.

Department Welcomes New Faculty Members

Paul Selden

Whatever killed the dinosaurs more than 65 million years ago barely touched spiders. That's one reason why Paul Selden, KU's new Gulf-Hedberg Distinguished Professor of Invertebrate Paleontology, has dedicated much of his career to studying ancient arachnids.

Selden's study of fossils of the eight-legged creatures is helping to create a more accurate picture of the life on Earth during the 180-million-year Mesozoic Era, roughly 251 to 65 million years ago.

"I've been working with paleoentomologists to reconstruct what the real land life was like at the time of the dinosaurs," Selden says. "By reconstructing what the ecology was back then, and what happened in terms of extinction events and climate change, it helps us to model what might happen in the future."

Brought to KU as the new director of the Paleontological Institute and the new editor of *The Treatise on Invertebrate Paleontology,* Selden arrived on Mount Oread in January 2007.

Selden grew up in England and graduated from Dr. Challoner's Grammar School in Amersham, 27 miles west of London. In England, a grammar school such as Dr. Challoner's educates pupils from age 11 to 18. (Point of trivia: Founded in 1624, the school shares the same motto as the state of Kansas: *Ad Astra Per Aspera* —To the stars through difficulties.)

He earned a bachelor's of science in geology and zoology from the University of Manchester.

"I started off being primarily interested in bugs and natural history and only came into geology when I went to college," Selden says.

Selden received his doctorate from the University of Cambridge.

Before coming to KU, he spent 26 years at the University of Manchester, most recently holding the post of reader in paleontology. Selden is credited with building an internationally recognized research program in arthropod paleobiology at Manchester.

Selden has scored many firsts in his career.

In Ludlow, Shropshire, near the border between England and Wales, he helped discover the world's oldest land animals, two centipedes and an arachnid. These 414-million-year-old fossils are 16 million years older than the oldest previously known fossils of land animals.

Working with W. A. Shear of Hampden-Sydney College in Virginia, Selden was also the first to describe the oldest land animals in North America, including the oldest known spider. Selden described the oldest *Mygalomorphae* (funnel-web, tarantula type of spider), and the oldest *Araneomorphae* (modern spiders) from 230-million-year-old fossils. He also described the first Permian spider from a fossil discovered in the Ural Mountains in Russia.

In 2005 Selden made international news when he discovered that what had been thought to be the world's largest spider wasn't a spider at all. The size of a small dog, *Megarachne servinei* lived 300 million years ago. After examining the fossil found in South America, Selden announced that the creature was a giant eurypterid (sea scorpion).

Selden served as president of the International Society of Arachnology from 2001 to 2004. Among other professional positions, he has served as vice president of both the Palaeontological Association and Palaeontographical Society. Selden is a fellow of the Linnean Society of London, the world's premier society for the study and dissemination of taxonomy.

Selden moved to Lawrence with his wife, Maura, who was an assistant principal at a major high school in London. Their daughter, Jennie, 26, is a fashion designer living in London. They keep in touch via Internet telephone.

The couple have been "having great fun" exploring Kansas, Selden says. They're fans of Lawrence's many restaurants.

Selden says he is happy to be at KU, although he admits to missing the ocean.

He jokes: "We wanted a house with a sea view, but our realtor said that wasn't possible, although we have fossilized sea creatures in the Oread limestone in our back yard!"

Evan Franseen

The Department of Geology's newest professor is actually one of KU's longest-serving scientists; and no, that's not a misprint.

A member of the Kansas Geological Survey for more than 18 years, Evan Franseen began a unique dual appointment with the Department and KGS in August. Along with continuing his longtime position as a senior scientist at KGS and chief of the survey's Stratigraphic Research Section, Franseen now serves as a professor of geology.

The joint appointment allows Franseen to continue his research and service work at KGS while also teaching at KU – an activity that he has happily pursued as a volunteer for years.

"I've been advising graduate students and leading classes on a voluntary basis," Franseen says. "This is a way to formalize the association. Now, it's part of my job."

Franseen says he is excited about his new position.

"I have a great love of teaching, and that's part of my motivation," he says. "I love teaching everything from introductory courses to advanced levels."

Franseen says he was reminded of his passion for teaching when he and Department Chair Bob Goldstein led a field trip last year to the Sacramento Mountains and Guadalupe Mountains. Those locations gave students and their teachers access to large areas of exposed carbonate rock, and helped facilitate lectures, energetic discussions and enthusiastic student exploration.

"It was just a blast," Franseen says. "I was jazzed because it was so much fun."

Franseen laughs, though, as he admits that the dual appointment will be challenging.

"I have a feeling I'm going to be really, really busy," he says.

Franseen brings to the Department a strong background in sedimentary geology. He has three degrees from the University of Wisconsin, Madison, earning his bachelor's in 1981, his master's in 1985 and his doctorate in 1989.

His research focus is carbonate rocks — the ancient limestones and dolomites that are a significant component of the subsurface of Kansas and many other parts of the world. These rocks play key roles in the world's economy.

"Limestone and dolomite hold a significant amount of oil in Kansas and around the world," Franseen says. "Our scientific efforts are important to better understanding how those systems work, so we can better understand what controls petroleum, how to access it and how to better get it out of the ground."

These rocks are also important because they act as reservoirs for a portion of the world's groundwater.

"Limestones are also used in road construction and cement," says Franseen. "We have to understand good quality limestone vs. bad quality, so that roads don't develop potholes."

Franseen and Goldstein, who shared the same faculty adviser as graduate students at the University of Wisconsin, have collaborated on studies of limestone and dolomites for almost two decades.

The pursuit of the pure science of carbonate geology is also a joy. That work involves understanding the multitude of factors like climate, sea levels and oceanographic conditions that build and break down carbonate systems, he says.

"The Golden Fleece is to understand each of the numerous factors that impact carbonate systems," Franseen says.

Franseen's favorite leisure activities are running, weight lifting and hiking. His scientific career has also had a major impact on his personal life. Franseen met his wife, Michele, while doing research in Las Negras, Spain, on the shore of the Mediterranean. The couple were married in Lyon, France, in 1993. They have a son in the 7th grade. Michele is self-employed, doing custom sewing for interior decorators and other clients.

When asked about the most unique aspect of his career, Franseen chuckles.

"The tongue in cheek answer is that my love of geology was developed by my love of mountains," he

says. “I find it somewhat ironic that I landed in just about the geographic center of North America and about as far away from any mountains as you can get.”

Alison Olcott

Incoming Assistant Professor Alison Olcott could be seen as a kind of exotic shutterbug. Through her work as an organic geochemist, Olcott seeks to create a snapshot of the oceans of Precambrian Earth.

“I look at the remnants of molecules once synthesized by organisms and preserved in rocks and sediments,” Olcott says. “In the right conditions, these molecules can be stable, persisting and identifiable for billions of years in the rock record.

“They can be incredibly diagnostic about the organisms that once produced those molecules. This, in turn, helps us better understand the environment in which sediments were formed: Were they oxic (containing oxygen)? Anoxic (lacking in oxygen)? Sulfur-rich? Methane-rich? Exposed to the sun? These biomarkers are a very powerful tool to examine the past and present Earth.”

Or to put it another way, Olcott says, “I enjoy the adventure of exploring big problems with microscopic compounds.”

Because Precambrian rocks date from a time before the development of animals, studying biomarkers is the only way to obtain a direct view of the biota of the ancient seas, she says.

Olcott will join the geology faculty in January 2008.

“I am very excited to join the Department of Geology,” she says. “Amongst its other strengths, the Department is already so strong in sedimentology, paleontology and geomicrobiology. My field nestles at the intersection of the three. There are many fantastic collaboration opportunities with the existing faculty. I hope my work will add another puzzle piece to the Department’s research into how carbon has been cycled, preserved and produced through Earth’s history.”

Olcott’s love of geology started when she was a kid and was an avid fossil collector, searching for brachiopods and trilobites in a quarry near her home in upstate New York.

“While I was an undergraduate I was thought of as indecisive as I bounced between chemistry, biology and geology classes, but unbeknown to me there was a simultaneous move towards multidisciplinary science in the broader community,” Olcott says. “In a sense, this has made it so I never really had to decide. I am able to use tools from all three fields to study the problems that really intrigue me.”

Olcott earned a bachelor’s degree in geology from the University of Chicago and a doctorate from the University of Southern California.

Since leaving USC, Olcott has done postdoctoral work at the Woods Hole Oceanographic Institution on Cape Cod, Mass.

“I’ve gone West Coast to East Coast to prepare me for settling right in the middle,” she says. “While I will miss living a block from the ocean, I am really looking forward to settling in to Lawrence. In addition to being a great place for me professionally, it looks like it will be a great place personally — a good place to buy a house, have a yard, get a dog, to really settle in.”

Olcott says her favorite leisure activity is knitting – a hobby she says will be helped by moving to a state with four seasons.

“In L.A. it was much harder to find things to knit, although my hats with molecules on them were pretty excellent.”

Andreas Möller

From mining for gold in Western Australia to bringing his geochronological insights to granulites and eclogites in East Africa, Andreas Möller has already had a varied career.

Möller will bring that broad background and a passion for diversity and collaboration when he arrives at KU in January as a new assistant professor in the Department of Geology. A native of Germany, he is coming from the Universitat Potsdam where he currently serves as a research

fellow with teaching obligations in the mineralogy-petrology group.

"I have a broad geological background, and I am happy to talk to anyone about the exciting things that could be tried and done by classic and non-classic collaborations," Möller says.

His research focuses on the age and duration of geologic events, mostly in metamorphic rocks. This helps him look at the timing and lifespan of mountain ranges and at the formation and evolution of the Earth's crust.

"The biggest overall question in my field is still to understand the geodynamics of the deep-seated processes in the Earth," he says, "the building and changing of Earth's crust as it evolves from the mantle and how this is related to the redistribution of elements. My special focus, of course, is on the time aspect of all of these."

He describes his most recent work as involving "the combination of classic thin-section petrography, petrology with geochronology."

"The important big questions to answer in my field are not that different from those that existed a few years back," Möller says, "but I think we now have many more sophisticated tools that beg to be combined. The key word here is 'combine' because specialization means that we don't always get the best possible results. Now is the time to combine methods from different sub-disciplines to better understand the big picture."

Möller says he is excited about coming to Kansas.

"My move to KU will give me the opportunity to build my own lab, form my own research group and interact with the existing groups, which is something that I look forward to very much," he says.

Born and raised in the village of Tangstedt in Northern Germany, Möller became interested in geology as an undergraduate in Hamburg. He transferred to Universitat Kiel on the Baltic Sea to pursue marine geology, hydrogeology and petrology courses.

"I filled the summer breaks with all the geology related jobs I could find that paid," Möller says.

Those ranged from working on a 10,000 foot deep gas well in Germany, to a stint as an assistant museum curator in Canada, to trips to Western Australia to work in the gold mines outside of Kalgoorlie. He completed his undergraduate degree by field mapping the glacial moraines of his home state, just west of Eutin (Point of Trivia: Eutin is one of Lawrence's sister cities.)

Among his many research trips were six months of work on granulites (high-temperature metamorphic rocks) and the world's oldest eclogites (high-pressure metamorphic rocks) in Tanzania and Zambia in East Africa. That work led to his doctorate in mineralogy from the Universitat Kiel in Germany.

Möller and his wife, Beate, met in Kiel. Beate is a geochemist with a doctorate. She works in the same department at Potsdam as her husband, and she would like to pursue more lab work, continue her research on mantle xenoliths and explore new fields and techniques in Kansas. The couple enjoy traveling, hiking, going to the cinema and visiting exhibitions. Andreas is also a motorcycle enthusiast.

Although he and his wife are experienced travelers, moving from Germany to Kansas will be quite a change. Currently, they live in Potsdam—a city with a history of more than 1,000 years that once was home to Prussian kings. In contrast, Lawrence is a mere 153 years old. Möller isn't worried, though.

"We are excited about what Kansas and Lawrence have to offer," he says.

The Treatise Enters the Digital Age

The wealth of *The Treatise on Invertebrate Paleontology* will soon be available online for the first time in the publication's 50-year history.

Plans call for *The Treatise* to first be posted in pdf format on the Paleontological Institute's web site, http://paleo.ku.edu. Eventually, though, it will be accessible through software that will enable researchers to extract and combine the taxonomic and stratigraphic data from different articles and volumes.

"This will be a major boon to researchers, who previously had to go through and manually extract this from the printed book," says Paul Selden, the new director of the Paleontological Institute and editor of *The Treatise*.

Selden also plans to post links to the digital version of *The University of Kansas Paleontological Contributions* on the Institute's site.

"We are grateful for the KU Libraries assistance in helping us digitize *The Contributions*," Selden says.

All of the Institute's publications will continue to be available in hard copy.

Randy Van Schmus Retires

Randy Van Schmus may have summed up his entire career when he told author John McPhee: "The story is there in the rocks. The problem for us is to figure out how to read them." (*Annals of the Former World*, 1998)

Van Schmus, the Department's Union Pacific Resources Distinguished Professor, has been pursuing that quest in his nearly 50-year career in geology. It's a quest that Van Schmus doesn't intend to end now that he has retired – a milestone that occurred on June 1.

But colleagues and former students say Van Schmus has done more than search for answers through the discipline of geochronology. He has also sought solutions for people. Along with his pioneering scientific work, Van Schmus has changed lives through his passion for teaching and his commitment to expanding opportunities for researchers in Brazil and Cameroon.

Sam Bowring, professor of geology at the Massachusetts Institute of Technology, studied with Van Schmus in the 1980s. He calls Van Schmus the "ideal advisor."

"Randy left a deep impression on me about the excitement of doing science, the rewards for being careful and methodical in one's approach and the self confidence to think outside the box," Bowring says.

Marion "Pat" Bickford praises Van Schmus' altruism. Bickford is professor emeritus of earth sciences at Syracuse University, a former KU geology faculty member and long-time collaborator with Van Schmus. In 2003, the Brazilian Academy of Sciences elected Van Schmus a member in honor of his work in South America.

"One of the most wonderful things Randy did was when he went down to Brazil and helped Brazilian scientists set up a laboratory," Bickford says. "He put a lot of effort into that, and I've always admired him for it."

Van Schmus keeps it simple. "My biggest achievements are the students I've left behind. I've been fortunate to be able to do some pioneering work, too. That's something that time will judge, though."

Fascinated by ancient Earth history, Van Schmus has focused on the events of a half billion to 2.5 billion years ago.

"In many ways what has been fun is going into areas that have been poorly studied and creating chronologic foundations so other people can build future studies," he says.

His research has ranged over many topics such as the quest to understand Gondwana. The supercontinent once consisted of South America, Africa, India, Australia and Antarctica.

"A lot of details still don't fit right, " Van Schmus says.

Geochronological techniques have helped Van Schmus "elucidate many important geologic questions," Bickford says.

Van Schmus' major contributions include work on Precambrian rocks in Michigan, Wisconsin and the Canadian Shield. Perhaps he is best known for his study of the buried basement of the mid-continent, Bickford says. Examination of these oldest of North American rocks is helping scientists sort out how the continent was built.

Van Schmus' love of geology was sparked by Bob Sharp's introductory course Van Schmus took as an undergraduate at the California Institute of Technology in 1957. He launched his career in geochronology by accident when he was at the University of California at Los Angeles and heard that a new professor needed help. That faculty member turned out to be one of the founders of geochronology, George W. Wetherill.

"He needed a research assistant; I needed a job, and it took off from there," Van Schmus says.

After earning his doctorate in 1964, Van Schmus fulfilled his ROTC commitment by spending what he

calls "three very productive years" studying meteorites at the Air Force Cambridge Research Laboratory outside of Bedford, Mass. At Bedford, he collaborated with John Wood and wrote his most cited paper, a classification of chondritic meteorites that is still the standard today.

In 1967, Bickford brought Van Schmus to KU to help him set up the Isotope Geochemistry Laboratory. The two met at UCLA.

"The one thing I would say is that my career wasn't predetermined or carefully designed," Van Schmus says. "It's been strictly serendipitous, which is one of the things I pass on to students: If opportunity knocks, open the door."

He says he loves to teach, but has never considered himself to be a great lecturer.

"I could never stand up and convert a lot of people to geology like some people can," Van Schmus says. "I'm not a showman. I like to teach what I consider to be the rather exciting aspects of Earth history. I have an aptitude for laboratory techniques, and I like being able to pass that on to students."

Great teaching doesn't have to be showy, though.

"With somebody like Sam Bowring, I didn't have to teach him much," Van Schmus says. "He taught himself. I was able to provide him with the environment that enabled him to reach his full potential."

Bowring praises Van Schmus for a style that gave students "as much or as little freedom as they could handle."

"Randy afforded me a great deal of independence," Bowring says, "but was always there to help solve the hard problem, offer advice or draw up plans for the machinist to build a new device. He would also humor the natural impatience and mood swings of young graduate students."

One of the other joys of his career has been the travel. Research projects have taken Van Schmus to all seven continents, although he notes that he only spent two weeks in China.

As professor emeritus, Van Schmus plans to analyze samples from Brazil and Africa that he hasn't had a chance to work on yet and to write up data that hasn't been published. He and Bickford are also continuing to tackle projects together.

"I have the ability to pick and choose and to do the things I want to do at a slower pace," he says. "I'll probably spend only a fraction of my time in the lab."

Among the other pursuits on Van Schmus' "to do" list are traveling with his wife Edna; working around the house; working on the model railroad layout in his basement; upgrading his stamp collection and continuing his quest to uncover family genealogy. He can already trace his family's roots beyond William the Conqueror (1028-1087).

Van Schmus says he has been blessed.

"I have to thank my past and present colleagues and students, and my family of course. None of it would have been possible without the support of my family. I've enjoyed my 40 years within the Department. It's been fun."

Van Schmus chaired the master's thesis and doctoral committees of 26 students.

Leonard L. Woolsey	M.S. 1971
Ramon H. Vera	M.S. 1972
Karen L. Harrower	M.S. 1976
Roger D, Hammond	M.S. 1978
Thomas F. Cudzilo	Ph.D. 1978
Randy T. Laney	M.S. 1979
James F. DuBois	M.S. 1981
Wendel J. Hoppe	M.S. 1984
Wayne R. Premo	M.S. 1984
Samuel A. Bowring	Ph.D. 1985
Steven S. Persons	M.S. 1988
Christina L. Livesey	M.S. 1988
E. Timothy Wallin	Ph.D. 1989
Thomas G. Sabin	M.S. 1994
Suzanne Orrell	Ph.D. 1996
David A. Gonzales	Ph.D. 1997
Lisa Hampton	M.S. 1998
Allen H. Fetter	Ph.D. 1999
C. Renee Rohs	Ph.D. 2001
Marianne Kozuch	Ph.D. 2003
Terrence J. Dewane	M.S. 2003

Students supervised as part of the Brazilian program are:

Marly Babinski	Ph.D. 1993
Elton Dantas	Ph.D. 1997
Mauro C. Geraldes	Ph.D. 2000
Renata da Silva Schmitt	Ph.D. 2001
Marcia A. S. B. Pinho	Ph.D. 2002

Van Schmus with some of his Brazilian students

Remembering Roger L. Kaesler

Every August brings change to the KU campus as new students and faculty members arrive and others leave. This August, though, brought a huge and sorrowful transition to the Department of Geology as veteran Professor Roger L. Kaesler died on Aug. 11 after a long illness.

Family, friends and colleagues gathered at the KU Natural History Museum on Sept. 4 to share memories. Here are some of the thoughts and remembrances that celebrated Kaesler – professor in the Department of Geology, editor of the *Treatise on Invertebrate Paleontology*, curator in the Division of Invertebrate Paleontology and director of the Paleontological Institute. Some of these memories were shared by the people who attended the event. Other remembrances came in e-mails and were read at the memorial.

A Department student support fund has been established at KU Endowment in Roger Kaesler's name. Donations can be sent to:

Kaesler Student Support Fund
Gift Processing Department
KU Endowment
P.O. Box 928
Lawrence, KS 66044-0928

"Roger was a brother, father, grandfather, husband, teacher, researcher, writer, editor and mentor, and he served many who needed his help," Department Chair Bob Goldstein told the gathering. "In his work, he was creative, professional and proper, but always kept it light, with an incredible sense of humor. As a paleontologist, he was among the world's leaders, but still was very humble and never into self promotion; although it would have been easy with all of his accomplishments."

Kaesler saw things that others could barely notice, Goldstein said.

"When I was a new faculty member at KU 20 years ago, I remember him encouraging us all that the future of paleontology and the geological sciences could lie in studies of the microbial world," Goldstein told the crowd. "He gently nudged us in that direction over the years, and of course, he turned out to be correct. We now have one of the cutting-edge research programs in that field."

Kaesler also carried the banner for the application of quantitative techniques to paleontology long before these approaches became standard in the field.

His expertise on the fossils of the tiny crustaceans known as ostracodes was legendary. One colleague wrote: "I am one of hundreds of ostracode workers who worked with Roger through the years. He was an outstanding ostracode scholar and an inspiring person. I will miss his humor and sharp wit."

Jennifer Reber Poole (BS '84), one of Kaesler's students, wrote that she spent weeks learning how to tell an ostracode from a rock chip

"It isn't as easy as it sounds," Poole wrote. "He patiently went through trays that I had picked, as well as re-analyzing the picked sample remains to ensure that I hadn't missed anything. He tried to teach me how to make thin sections, but I never could get them perfectly even like he could. He never got annoyed or angry, or in any way implied that I was less than clever. I learned how to recognize ostracodes eventually!"

As the director of Field Camp, Kaesler gave geology students their first taste of field geology.

"Most of the students who took this course decided they wanted to incorporate field work into their careers," Goldstein said. "He just instilled a sense of wonder and excitement about the subject that hooked the students."

Poole remembered Kaesler's unorthodox methods.

"At Field Camp, we had occasional test days, where we had to map an area in pairs, or sometimes by ourselves," she wrote. "I remember coming around a corner and finding Dr. Kaesler perched in a tree, snacking on coffee beans and keeping an eagle eye on the proceedings. I think he could see what was going on in an entire square mile. Everyone was always

paranoid about where Dr. K. was hiding on test days, as he was quite stealthy, and could cover a huge area quickly with those long strides. Nobody dared to cheat!"

Along with his knowledge and skill, Kaesler's kindness and friendliness were also the stuff of legend.

When she was working for Kaesler during the early 1980s, Poole learned that he had paid for *National Geographic* to be sent to an academic acquaintance in what was then the Soviet Union. Because of the restrictions of the time, the acquaintance couldn't arrange for the subscription by himself.

"When I reminded him of it several years later, he had forgotten his own generosity, as it had all just been in a day's work," Poole wrote.

Most of all, Poole remembered Kaesler as a mentor.

"Roger's greatest gift, in my opinion, was his natural ability to mentor people," she wrote. "He had a great influence on my life, and I wanted him to be as proud of me as I did my own parents. I always said he was like my Dad, only a lot less judgemental. He gave sound advice, never criticized except in a positive way and always behaved in a way that exhibited the highest personal and ethical standards. I admired him immensely, and am very proud to have been his friend."

Many remembered Kaesler's creative spirit.

Retired KU science writer and editor Roger Martin was a great admirer of Kaesler's approach.

"He had a Rock of the Week display in Lindley Hall, which I asked him about once, at the time the 500th Rock of the Week went up — which, of course, wasn't a rock at all, but a dinosaur tailbone.

"Roger said it wasn't always fun picking the rocks for the display but did concede it was a creative outlet, then added, 'There aren't enough deep-knee-bends-of-the-mind in life.'"

All admired Kaesler's wit, including the editors of the *Topeka Women-in-Construction Newsletter*. They printed a poem Roger wrote and displayed one week when he was desperate for a rock to display. That week he found inspiration in the driveway and penned this poem.

Gravel Is Our Friend

Oh, you may talk of minerals
Of calcite or hornblende
And write of ancient, fossil apes
From which we did descend,
But when it all is said and done,
I hope you'll comprehend,
Of all things geological,
It's gravel that's our friend.

We use it by the truckload still
Our country roads to mend,
For highways, dams, foundations, too
Which Nature's forces rend
These humble lines, more true by far
Than any words yet penned
Next time you see a driveway rock
Think Gravel is our friend.

"Roger was a very close and very special friend of some 44 years standing," Robin Watley wrote. "I first met him when, as a postgraduate student at the University of Hull, I was introduced to a long streak of a man who might have been on stilts, with an almost satanic expression, probably enhanced by his beard, short hair and a frightful colonial accent."

Watley remembered their adventures and their laughter, noting that he and Kaesler were probably such good friends because they seemed to have an "almost identical and well-exercised sense of the absurd."

Watley remembered one "hilarious day" when they swapped possible epitaphs – in Latin, of course. Watney ended his letter, by writing:

"Wherever you are old friend, God speed and God rest and thank you for being my special friend and bringing such fun and laughter to my life."

Critter of the Week

Rogerleroyoides KAESLER, 1937 [**R. longusleggis;* OD]. Little-known elongated fossil, based on well-preserved specimen. Similar to *R. ceemooriensis*, but with more pronounced facial hair and more amiable character. Lower extremities often covered by leather and cork assemblages; detachable abdominal pouch just recently developed. *Holocene:* Carmelcourt Formation; front view, head only, X0.025 (new).

Field Camps 2007

The KU Department of Geology held four field camp courses this year. I taught the Advanced Field Geology course in California (Jan. 2-13). Seven students from KU took the class. In addition, Jim Trexler and two students from University of Nevada, Reno and Walt Snyder from Boise State University in Idaho came out for a few days of mapping and instruction in using the field hardened computer systems and GIS. We went to the Lava Mountains just south of Ridgecrest, Calif.

The regular summer field camps (Geology 560 and 561) ran very smoothly this year. After taking over the field camps from Roger Kaesler in 2006, Associate Professor Steve Hasiotis, Associate Professor Dan Stockli and I are finally getting the hang of finding materials and getting logistics worked out.

Steve taught the first course (560) around the field station in Cañon City, Colo. The group of 16 students from KU, one from Allegheny College in Pennsylvania and one from the University of Tulsa in Oklahoma, worked well together and did a good job on the camp projects. Weather presented a significant challenge for the group, though. Part of one day was even lost to snow. Despite the bad weather, the group was able to put on a good show for Hawaiian Shirt Day.

The intrepid participants in Geology 560 are all smiles during Hawaiian Shirt Day.

This year, the Cañon City camp has a new look. The old moldy siding has been power washed and the buildings have been painted to protect them from the elements. We had found that the old shake roofs were shedding shingles at a rapid rate and posed a fire hazard. The roofs on each building have now been replaced with fire resistant composition shingles. The kitchen facilities and plumbing have been upgraded. Ceiling fans have been installed into the common areas and some of the cabins have been spruced up as well. Although I think you would still recognize the camp if you visited, it looks far more presentable, is more comfortable for faculty members and students and is better protected from the elements.

Danny Stockli discusses the Nevada mapping projects with students in Geology 561.

Dan and I taught the second course (561) to 12 students. I was only there for the first week, but I utilized this time to start the students on using the field computers and GIS software on a project south of Cañon City. The group went to Dyer, Nev., for the last two weeks. Dan has been taking the students to this area for four years, and the KU camp is putting together a fine map of a research area that had not been previously studied. This is providing the students with real-world experience in mapping and establishing stratigraphy in a new area, as well as teaching them skills in teamwork.

Associate Professor Tony Walton taught Geology 360. With 37 students, he had the largest class in the 10 summers this course has been offered. The route featured new projects on the Summer Coon Volcano in the eastern San Juan Mountains in Colorado and the Moab Fault and Gentile Wash in Utah. Students enjoyed visits to Yellowstone, Snowbird and Lake City. The group also discussed the dilemma presented by the need for copper vs. the environmental impact of the

Bingham Canyon copper mine with its 1.2 kilometer deep, 4 kilometer wide open pit. Challenges this year included rainfall, blown tires and the necessity of teaching student drivers the virtues of downshifting on long mountain grades.

Melissa Malone, left, and Katie Slater share a moment and the view while mapping terminal and recessional moraines at Fremont Lake, Wyo.

Tony again was pleased with the students' cooperation, which makes the course run smoothly, and with the quality of their written work. This latter point is especially impressive since the students are writing under trying circumstances, including composing in the heat of roadside parks, while riding in a van or by the glow of a van's dome light after a day of hiking and mapping. With six vehicles and high prices, gas was a major expense. One gas stop cost $495.

Like the regular field camps, Geology 360 is made possible because of the generosity of our alumni and other supporters. The students and faculty are grateful for those contributions.

More information on Field Camp can be found at www.geo.ku.edu/FieldActivities/FieldMenu.html

and at a mapping website

http://tectonics.geo.ku.edu/mapping/mapping_web_page.html

- J. Douglas Walker
Professor and Field Camp Director

The Golden Hammer Award

This year we gave out the second Golden Hammer Award for Geology 561. This is given to the student who does the best job with the mapping projects, establishing new stratigraphy and understanding the map areas. Enthusiasm and contributions to the intellectual development of the whole group also count. The award was actually started last year, but I forgot to put it in the 2006 write-up. (Sorry about that!) The 2006 recipient was Allan Hemmy, and the 2007 winner was Kyle Gorynski.

Allan Hemmy

Kyle Gorynski

G-Hawks Dominate the Competition

KU Geology graduate students demolished their competitors this year by winning more grants from the Geological Society of America and the American Association of Petroleum Geologists than students from any other university in the world.

Not only did KU students take the largest number of grants, but they also won some of the most prestigious, including named grants and those for outstanding merit.

"Having the bragging rights on both GSA and AAPG is a great indication of the quality of our graduate students," Chair Bob Goldstein says.

GSA awarded grants to seven graduate students in KU Geology and gave two more to students from the KU Department of Geography. In all, GSA awarded a total of 246 grants to students from five countries and 144 universities.

AAPG handed out five grants to KU Geology students. The association awarded a total of nearly 100 grants to students from eight countries and 70 universities.

Both contests are competitive and provide support for master's and doctoral thesis research.

The KU Geology winners include Markella Hoffman, Chris Lipinski, William Rittase, Marina Suarez and Eugene Szymanski.

The GSA's evaluation committee singled out the work of two KU students to be among the 20 the committee felt had exceptionally high merit in concept and presentation. They were awarded outstanding mention. These two proposals are:

· Zachary S. Casey, "The Cerro Coso fault, a study of strain transfer across the Garlock fault, southeastern California."

· Melissa Wolfe, "Calibration of Rutile (U-Th)/He thermochronology: Assessing the thermal evolution of the KTB drill hole, Germany and adjacent Bohemian Massif."

Four of the five AAPG winners received prestigious named awards. Those winners are:

· Bethiah Hall, who won the Horst & Jessie von Bandat Memorial Grant. Bethiah is working on sequence stratigraphic analysis of tidally dominated deltaic deposits in the Triassic Moenkopi Formation of Capitol Reef.

· Christopher Lipinski, who won the J. Elmer Thomas Past Presidents Memorial Grant and is doing research on Miocene oolitic reservoir analogs in outcrops of southeast Spain.

· Rebekah Ost, who received the Classen Family Grant and is doing research on sequence stratigraphy of a unit in the Piceance basin of Colorado.

· Jeffrey Schroeder, who received the Garth W. Caylor Memorial Grant and is doing research on a pull-apart basin in the Eastern California Shear Zone.

Geology Sees Phenomenal Growth

If the KU Department of Geology had a listing on the New York Stock Exchange, now would be the time to buy stock.

The signs of success are everywhere. They include an increase in students, a rising number of faculty members and staff, and the Department's success in winning publication in peer-reviewed journals.

"We've done very well," says Department Chair Bob Goldstein.

Both the undergraduate and the graduate ranks of geology majors have increased over the last 20 years, and especially in the last few years. In the Fall Semester of 1987, a total of 86 students were declared majors. This year that number ballooned to 171 students, including 69 graduate students. Meanwhile, the number of students taking Department classes and being exposed to geological sciences has boomed. In 1999, about 2,000 students took geology classes. That number has now doubled to 4,000.

In the last 10 years, the size of the Department's faculty and staff has also more than doubled.

In the 1997-1998 school year, 30 positions were associated with the Department, including 15 regular faculty members.

When two new faculty members arrive on Mount Oread in January, the Department's total faculty and staff for 2007-2008 will reach 65. That includes 21 regular faculty members, the staff of the Museum of Invertebrate Paleontology and the Paleontological Institute, emeritus faculty, courtesy and adjunct faculty and support staff.

The Department's success is also seen in the achievements of its faculty and graduate students.

"In the last two years, we've had 62 peer-reviewed papers published each year," Goldstein says. "That's an amazing figure."

KGS Helps Tap Coal Bed Methane

In the much-explored mid-continent, it's rare to come across a previously untapped energy source. But natural gas coal beds have become a big part of the Kansas energy picture.

Researchers at the Kansas Geological Survey, working with graduate students in KU's Department of Geology, have played a role in the rise of this resource. KGS has compiled information about the state's coal deposits, analyzed the natural gas that coal produces, provided data about the economic impact and studied the possible role of coal beds in carbon dioxide sequestration.

Natural gas was produced from coal here as early as the 1920s, but it never became a major energy resource for the state. In the late 1980s, though, with improved technology and tax and price incentives, explorationists took another look at natural gas from coal, which is also sometimes called coal bed methane.

In Kansas, coal is generally found east of a line from Cowley County in the south to Nemaha County in the north. Exploration for coal bed methane has focused on southeastern Kansas, especially Wilson, Labette, Neosho, Montgomery and Chautauqua counties. Wells are generally shallow (500 to 1,500 feet deep), and that, along with existing pipelines, makes gas production economic. While water is produced from many of these wells, it is generally disposed of in deeper geologic formations.

Tim Carr, head of the KGS energy research section, has tracked oil and gas production in Kansas for the past 15 years. In 2006, coal-related gas production was estimated at 27 billion cubic feet. The value of this gas was $175 million, with increases projected for 2007.

"Exploration for natural gas from coal has really affected drilling in the state," Carr says. "About half of the wells drilled in the state in 2006 were for natural gas from coal. That has a dramatic impact in Kansas counties that haven't seen such drilling in almost a century."

Many KGS researchers have contributed to the work on coal bed methane.

Larry Brady studied Kansas coals in a long career. His work, with KU geology graduate students Mike Staton, John Harris, Dan Huffman, Neal Livingston, and Dave Killen, outlined the widespread distribution of Kansas coal beds. A single Kansas well may encounter up to 14 coal layers, but locations where the coal beds are thicker, and where wells encounter multiple pay zones, work the best for gas production.

KGS researcher Dave Newell has collected and analyzed numerous samples of the gas given off by wells. His work shows that the Cherokee basin in southeastern Kansas is the most productive region for coal bed natural gas in Kansas. Methane content decreases to the north in the Forest City basin, where coals contain at most about half the gas content of coal in the Cherokee basin.

Recent KU graduate students Troy Johnson, Matt Brown, Jonathan Lange and Stephen Schurger have worked with KGS researchers to understand the generation and potential of natural gas north to south from Oklahoma to Nebraska and across eastern Kansas.

Work by the KGS has led to other possible applications. For example, researchers studied methane available in five coal layers beneath the Johnson County landfill. Gas produced from the trash in the landfill is currently captured and the methane portion sold. Newell studied the possibility of separating out the carbon dioxide produced at the landfill, then pumping it underground to be sequestered and to help push out more natural gas.

Similarly, KGS scientists looked at capturing carbon dioxide produced during the manufacture of cement in southeastern Kansas, and using the carbon dioxide to produce additional natural gas, while disposing of the carbon dioxide. KU graduate student Stephen Schurger, working with KGS researchers, developed a model of the reservoir near a large cement plant, using well log and core data to better understand the stratigraphy.

In short, years of geologic study have helped foster a new energy source. At a time of growing concern about energy availability and climate change, natural gas from coal could be a welcome addition to the energy mix.

- Rex Buchanan
Associate Director for Public Outreach

Energy Opportunities

KU Charts New Course in Resources and the Environment

In a geologic time frame, change occurs over millions of years. In the world of commerce, academia and public policy, though, change can happen in the relative blink of an eye.

The field of geology has hit what sociologists call a tipping point – an eye-blink moment when new opportunities and challenges burst onto the scene. In the case of geology, that change has come in two ways. Geologists face the challenges of meeting the energy needs of the world through improved oil and natural gas production. At the same time, their work in managing and stewarding the environment is more important than ever before.

For the KU Department of Geology, all of this has translated into what Chair Bob Goldstein calls "a hot opportunity."

"It's a very good time for the Department," Goldstein says.

Long known for its role in training leaders in the oil and gas industry, the Department has produced graduates who have succeeded in many ways, including as executives of the world's largest energy corporations and as independent producers. The Department has also produced four presidents of the American Association of Petroleum Geologists, three presidents of the Society for Sedimentary Geology and seven winners of the American Association of Petroleum Geologists highest award, the Powers Medal, among other notables.

This past success combined with the Department's diversity is serving KU well in these days of change.

"The KU Department of Geology is poised and ready to deal with this better than any other department I know," Goldstein says. "It's because we're diverse. Some departments put all of their eggs into one basket, one specialty, and now they may be struggling to find students or struggling to find jobs for their students. Others tend to focus student education only on practical applications for a particular industry rather than on the fundamentals of the geological sciences. Their students may not be prepared for the inevitable changes that will come down the pike."

That G-Hawk diversity, along with the strength of its partnership with the Kansas Geological Survey, has put the Department on the leading edge of research and education in the field of energy and in

environmental fields that complement those related to energy consumption. As always the Department is also balancing its emphasis on research with an equal emphasis on education.

"We've always kept in mind that it's not just about research," Goldstein says. "It's also about our students. They are the most important product we have. That idea has guided our planning."

Today there is literally so much happening in the Department in terms of research and teaching on energy that it won't all fit into the limited pages of the *G-Hawker*. Here are just a few highlights.

Increasing Energy Production

Always the key to surviving in the competitive business of energy production, working smart is literally a matter of life and death now that conventional sources of oil and gas are getting harder to exploit.

Conventional resources allow producers to sink a well into a reservoir and extract the fossil fuel. Unconventional sources, on the other hand, include a variety of materials such as tar sands and oil shales where materials are mined and then processed to produce petroleum. Unconventional natural gas has also been produced through drilling into coal beds and organic-rich shales and tight gas-bearing sandstones.

"I think we're realizing limitations in what you can do in conventional oil fields with existing technology," says Lynn Watney, senior scientific fellow at the KGS. "There are still large fields to be found, but they may be disguised because of their unconventional nature."

The same is true of natural gas production, particularly in the mid-continent. Consider the fate of the Hugoton gas field in Southwestern Kansas, Oklahoma and Texas. Hugoton is the biggest gas field in the Western Hemisphere, but it is largely played out.

"It's been produced since the late 1920s," Watney says. "Most of the field is depleted in the context of our current technology."

This makes the Department's role in research and in the education of the next generation of industry leaders more important than ever.

Working with scientists at the KGS, 12 members of the Department's faculty run the Sedimentary Geology Program and oversee that program's emphasis on Petroleum Geology.

These faculty members are Professor Evan Franseen, Department Chair and Professor Bob Goldstein, Associate Professor Luis Gonzalez, Associate Professor Steve Hasiotis, Associate

Department of Geology Provides Real-World Training

Teaching fundamentals and then including hands-on, real-world experience are the hallmarks of the geology program at KU. No course does that better than the Department's class on reservoir characterization, Geology 791.

Designed for students who plan to go directly into the oil and gas industry, the class is taught by Associate Professor Tony Walton, scientists from the Kansas Geological Survey and petroleum engineering professors. Engineering majors work alongside geology students, although they take the class as Chemical and Petroleum Engineering 628.

In the course, two-student teams of geologists and engineers use data such as well logs, cores and production records provided by an exploration company to analyze an operator's oil field. The teams look at the reservoir's porosity, volume, pressure and permeability, among other data. They also utilize the PETRA and PetraSeis software packages, the same programs used by many companies in the industry.

Recent projects include a field that was drilled in 2005 and analyzing whether it was worthy of additional investment, a field under consideration for unitizing and waterflooding and a field where "disposed" salt water was actually recycling through the production wells. The operator is considering expanding the oil field that the 2008 class will study.

"We're using real data from a real operator," Walton says. "We do the economics on their options. Should they sink additional wells or walk away? We present this to the operators themselves, who then can chose to use the information or not."

The class builds on the basic petroleum geology class, Geology 535, a course that uses oil field data publicly available on the KGS web site. In this class, undergraduate teams also use the PETRA and PetraSeis software to analyze the information. They present their findings to a meeting of the Kansas Geological Society in Wichita.

Both courses build the kind of experience students need to succeed, Walton says.

"It's real-world stuff."


George Tsoflias

Professor Diane Kamola, Professor Bruce Lieberman, Associate Professor Gwen Macpherson, Associate Professor Jennifer Roberts, Associate Professor Dan Stockli, Professor J. Douglas Walker and Associate Professor Tony Walton. They also collaborate with faculty members in geophysics, petroleum engineering, and the Geobiology Group to provide the research energy producers need in this new era.

Stockli, for example, is working on the thermal history of sedimentary rocks. Because heat plays such a key role in the creation of fossil fuels, understanding thermal history helps energy producers explore for oil and gas.

Walker's work on the folding and faulting of rocks also helps guide energy producers. Kamola researches sequence stratigraphy of siliciclastic sedimentary rocks, a key element in many reservoirs.

Goldstein and Gonzalez focus on the role carbonate rocks plays in oil and gas production. Gonzalez has also done some work on source rocks – the rock type that produces liquid oil or natural gas over the course of millions of years. Meanwhile, geophysicist and Associate Professor Ross Black is helping to study reservoirs.

Geomicrobiologists Roberts and Assistant Professor David Fowle have joined with Gonzalez and Goldstein to examine the impact of microbes on the distribution and porosity of dolomite reservoir rocks. This carbonate rock plays an important role in petroleum reservoirs in many parts of the world.

Even the fossilized tracks, trails and squiggles left behind by ancient insects and animals are helping energy producers to work smarter. Hasiotis' research on these trace fossils provides oil and gas producers with information about the environment of deposition of reservoir rocks.

"My research is very useful in helping petroleum geologists understand what environment they're in," Hasiotis says. "It helps petroleum geologists understand the connectiveness, size and shape of a reservoir where oil occurs. It also helps them understand what kind of seal caps the reservoir."

In January, the Department's work on unconventional energy production methods will receive a boost when Alison Olcott arrives to take up her new role as an assistant professor. Olcott works on organic-rich sedimentary rocks, including oil shales. These shales contain kerogen like source rocks do, but they have not been heated to a high enough temperature to release hydrocarbons. Oil shales can be converted to crude oil by heating the rock and distilling the resulting products.

Oil shale deposits worldwide are estimated to equal about 3 trillion barrels of recoverable oil. Between 1.5 and 2.6 trillion barrels are estimated to be in the United States alone.

Other faculty members are working on projects relating to tar sands, a mixture of sand or clay, water and extremely heavy crude oil. Tar sands are either strip mined or converted to a liquid that can be recovered by a well. Some researchers estimate that tar sands represent as much as two-thirds of the world's total petroleum resources.

Keeping Water Pure

Depending on conditions and the individual, a person can't live more than eight to 14 days without water.

That is why the supply of potable water, much of which comes from aquifers, is so important. As concerns about the world's water supply grow, the Department's work on the protection and remediation of aquifers is gaining a higher profile.

Associate Professor J.F. Devlin is working on building chemical barriers in contaminated aquifers. His team digs a trench and fills it with iron filings to create a chemical environment that allows contaminating organic compounds, many that are the result of fossil fuel spills, to be broken down.

Through a Department of Defense grant, Professor Carl McElwee is working on ways to characterize the three-dimensional variability of aquifers. He studies an aquifer's permeability, or how quickly the water can move through the system.

Roberts is working on several projects involving polluted aquifers. In one site in Bemidji, Minn., the area was contaminated when a crude oil pipeline burst decades ago and sprayed oil over a large area.

"Most of the expense of cleaning up these kinds of sites comes from injecting something in or pumping it out and then trying to clean it up," Roberts says.

Microorganisms use contaminants as a food source, in a sense gobbling up the pollution naturally. Roberts and her team want to understand how the natural process works, so that they can determine when to intervene and when to just let nature take its course.

"These studies give us a better handle on what's going to happen naturally," Roberts says, "so we can decide whether or not to take the next step to spend the extra money to remediate."

Although microorganisms consume petroleum as a food source, the tiny organisms also need other nutrients to flourish just like humans do. While people may take a vitamin pill, microorganisms normally get their vitamin boosts by dissolving some of the rock in the aquifer. Part of Roberts' job is to study the organisms and how they interact with the rock.

"A lot of times we engineer ways to speed up the processes by adding these nutrients to the water," she says.

Roberts and her team are also working to create a tool that can help them better predict the interactions of the geochemistry and biology of an aquifer. Once perfected, this tool could help them estimate how fast organisms will be able to degrade a contaminant.

In other studies, the Department's geomicrobiologists have joined forces with geophysicists. Roberts, Devlin and Assistant Professor George Tsoflias, for example, are working together on the Borden Aquifer in Ontario, Canada. The aquifer has been contaminated by a hydrocarbon plume.

By using Tsoflias' ground-penetrating radar and a probe Devlin developed to measure the velocity of groundwater, the group is looking at the water flow within the aquifer. Microorganisms can't clean an aquifer if they can't access all of the contaminated water. That means the water has to flow freely.

At times, though, the water may be dammed up by the microorganisms that are supposed to be cleansing it.

"We think biomass clogs up the aquifer," Roberts says.

Understanding Climate Change

You can't even watch movie stars strutting around the Academy Awards ceremony these days without

Energy Tools Tackle Climate Mystery

Using technology that helps energy producers explore for oil and gas, Assistant Professor George Tsoflias is unlocking the secrets at the bottom of ice sheets.

Even though he once knew little about glaciers, the geophysicist is now working with scientists from The Center for Remote Sensing of Ice Sheets on a project that stretches from Greenland to Antarctica.

The Center, known as CReSIS, is headquartered at KU and includes six universities and collaborators from all over the world. Focused on measuring the impact of climate change on ice sheets, CReSIS is studying what some scientists view as an alarming increase in the movement of ice streams and glaciers. The increased flow could be a sign that they are melting faster.

"Jakobshavn Glacier (in Greenland) has doubled the rate of its flow in the last 10 years or so," Tsoflias says.

The problem for researchers, though, is that when it comes to glaciers, most of the action occurs one to two miles below the surface. Scientists theorize that glaciers may be flowing faster because the ice at the bottom is melting faster, lubricating their foundations and causing them to slip forward.

Tsoflias is using seismic reflection techniques developed for oil and gas exploration to peer down to the base of the glacier. Used for decades in exploration geophysics, this technology has seen very little use in such extreme settings. Tsoflias' job is to develop, test, calibrate and improve seismic equipment, along with gathering data.

"What we do is try to image the base, the interface between the ice and the ground," Tsoflias says. "If there is water, then how thick is the water layer? What types of rocks do we have at the base, water saturated glacial till or solid bedrock?"

This summer Tsoflias made his first trip to Greenland to work on the project.

"We're now in the process of analyzing the data," he says. "We have good quality data. The preliminary results look good. We'll see what our final conclusions are later this year."

Extended expeditions are planned for Greenland in May 2008 and Antarctica in December 2008 and January 2009.

Jennifer Roberts

hearing about climate change. In the last ceremony in February 2007, Al Gore's controversial look at that topic, "An Inconvenient Truth," took home the Oscar for best documentary.

Politicians and movie actors may be able to embrace uncertain ideas, but geologists don't have that luxury. As climate change has become an increasing concern, Department researchers are unearthing the facts. Faculty members are taking a variety of approaches to the complicated issue of how and why the Earth's climate is changing.

Hasiotis is using trace fossils to study an ancient period of climate change – the Paleocene-Eocene Thermal Maximum.

Best known by its abbreviation of PETM, this period occurred about 55 million years ago. Over a period of about 86,000 years, temperatures on Earth rose drastically. For example, the mean annual temperature for the Bighorn basin of Wyoming today is 19 degrees Celsius (about 66 degrees Fahrenheit). During the PETM, the mean annual temperature of the area rose to about 22 to 26 degrees Celsius (about 72 degrees Fahrenheit).

"This is an important study because we may be going through such a transient and possibly severe global warming event now," Hasiotis says. "We are studying the effects of this climate change on soil communities – the organisms that live on and in the soils."

Working with a colleague at the University of Colorado, Hasiotis and geology student Jon Smith have found evidence that organisms in the soil do show the effect of increases in temperature.

"We think we could even look at the modern records since the recent onset of climate change and actually see a prediction of the future," he says. "We could actually look at future changes in the size of insects as a measure or a tool to bio-monitor what's going on now with climate change."

Other projects examining ancient periods of change are also on the horizon.

Greg Ludvigson from KGS, Gonzalez, Roberts, Fowle and a Baylor University researcher have received a grant to study the climate change of the Cretaceous Period. Climate was so warm about 100 million years ago during the Cretaceous that a kind of crocodile swam then near the North Pole.

The $250,000 National Science Foundation grant will help the team study the formation of siderite, an iron mineral. By better understanding how siderite is formed in the present, the researchers can learn more about what the climate was like when siderite formed during the Cretaceous Period.

Other KU geologists are focusing on the fate of carbon dioxide (CO_2) and methane. The two so-called greenhouse gases may be trapping heat near the surface of the Earth and contributing to climate change.

"One of the real issues of the future will be dealing with CO_2 sequestration," Goldstein says. "There's very interesting work going on in getting rid of CO_2, whether it is coming out of a smoke stack or a tailpipe."

The word "sequestration" comes from the word "sequester."

"It's like when a jury is sequestered; it's members are hidden away from others," Goldstein says. "It's the same thing. You take the CO_2 and stick it somewhere where it will be isolated from the surface."

A common way to do this is by pumping the gas into old oil and gas reservoirs as described on p 31.

"Oil and gas reservoirs were effective in holding oil and gas, so they should be effective in holding CO_2," Goldstein says.

Assistant Professor Mike Taylor is using satellite imagery to track the course of carbon dioxide once it has been injected into a well.

Taylor works with radar interferometry, which takes data from repeated satellite passes over the same location to build a picture of what has happened at that place over time. Using this process, Taylor can judge whether carbon dioxide is inflating the surface or escaping into the air.

Sequestering carbon dioxide, though, involves more than injecting it into old wells.

Associate Professor Gwen Macpherson is looking at natural processes that may sequester carbon dioxide. Through nearly 20 years, she has been studying one patch of the undisturbed Konza Prairie south of

Manhattan, Kan., to determine the ability of shallow aquifers to hold carbon dioxide. Macpherson has found evidence that the freshwater aquifers may be buffering atmospheric carbon dioxide.

Meanwhile, Roberts and Fowle worked with researchers from the KU School of Engineering and with geology graduate student Ezra Kulczycki on issues surrounding methane.

In a paper published in the July 17, 2007, Proceedings of the National Academy of Sciences, the group showed that the chemical state of copper in the soil near methane-eating bacteria determines how well these organisms can neutralize the gas.

"Methane is a very potent greenhouse gas," Roberts says. "It's important to understand sources and sinks of methane as we see our climate change. Copper is a key factor in understanding the biological mediation. That's because methane-oxidizing microorganisms are more efficient in the presence of copper. If we quantify the copper content of the soil, we can get a better estimate of the biological potential to oxidize methane."

These are just a few of the initiatives that members of the faculty and geology students are pursuing in this new energy age.

"All of the work of the Department has put us in a good position to take advantage of these opportunities," Goldstein says. "That is true whether the topic is conventional or unconventional fossil fuels, CO_2 sequestration or specific environmental issues related to energy production. We're in a very good position to take advantage of today's opportunities and to have our students succeed far into the future."

KU Uses Production to Help Environment

One of the most intriguing prospects for the energy future is a procedure that increases oil production by locking up a greenhouse gas.

For nearly a decade, KU has been working on this approach. It uses carbon dioxide (CO_2) to improve production in oil wells that have been played out using conventional technology.

In this approach, carbon dioxide is injected into wells in a nearly depleted oil field where more than half of the oil is often still locked in the ground. Before the carbon dioxide was injected, dropping pressure and immobile oil made it impossible for producers to use conventional methods to access the remaining oil.

"The carbon dioxide mobilizes the oil that may have been trapped," says Lynn Watney, a senior scientific fellow at the KGS. "It acts like soap, mixing with the oil and allowing it to flow. It scrubs the oil from the reservoir."

Carbon dioxide injection allows producers to recover roughly between 20 and 30 percent more oil than can be extracted with conventional methods.

"With today's oil prices, that makes it very advantageous," Watney says.

Once injected into the oil reservoir, the carbon dioxide mixes with the oil. When the oil is pumped out, it contains CO_2, but the gas is then re-injected back into the reservoir to recover more oil. Thus, the carbon dioxide is sequestered from the atmosphere.

Researchers at KGS have carefully monitored what happens with CO_2 injection in a pilot project at Hall-Gurney Field in central Kansas. Rick Miller, his staff and students have been able to observe the CO_2 movement through 4-D seismic monitoring. By taking readings at the same site over a period of time, researchers essentially create time-lapse 3-D seismic imaging of the subsurface.

The carbon dioxide used in the wells is trucked in from ethanol plants. Perhaps surprising to many, CO_2 is a byproduct of ethanol production. Kansas already has eight ethanol plants producing fuel from grain or corn. As many as 21 more may be built.

Watney says he thinks it is inevitable that this method will become popular.

"Here's the farming community that is getting a good price from their grain because of the demand for ethanol," he says. "That CO_2 is also now a source for improving oil recovery in the state. We have billions of barrels of oil in Kansas alone that are not accessible with current technologies. The future for the utilization of CO_2 is probably substantial."

Future efforts that link energy production and CO_2 sequestration involve a broad spectrum of faculty and student researchers at KU. Jennifer Roberts, Luis Gonzalez, Dave Fowle and Bob Goldstein are working on a project involving methane-producing microbes in the subsurface that may contribute to this important research direction.

"Linking energy production to the likely upcoming reality of CO_2 sequestration, makes good sense," Goldstein says. "If CO_2 sequestration can produce a usable fuel as a byproduct, then the economics of CO_2 sequestration may move out of the red and into the black."

More information can be found at www.kgs.ku.edu/Geophysics/4Dseismic

Geology Associates: A Note from the Chair

Geology and geophysics education is often thought of as supporting industries such as petroleum exploration, mining and geological or civil engineering. Indeed, current demand for highly trained graduates in these areas is at or near record levels. The Department of Geology has a strongly established reputation as an academic leader in these fields, especially contributing highly skilled graduates for the energy industry.

While these perceptions remain valid, it is also increasingly important to the long-term future of the United States and the world that energy producers and users have the ability to link energy production and consumption to environmental management and stewardship. Within the last few decades, environmental issues such as air and water conservation, chemical contamination, climate change, fuels tradeoffs and materials recycling have risen from mere concerns to dominant global issues on par with energy needs.

These changes to the global landscape mandate that any socially responsible university or department devote a part of its energy-related program to finding solutions to these kinds of environmental issues. Emerging trends and growth areas in the geological sciences recently identified by KU Geology include:

- energy resources
- water resources
- geobiology
- environment
- global change
- climate

Each of these areas will require new research and skilled graduates.

The Department is working to continue its existing leadership or establish new leadership positions in all of these trend areas. While continuing one of its basic strategies to build on core strengths in energy-related fields, the Department is also developing new programs that will establish more direct linkages between energy production and environmental studies. These programs are based on the guiding principles of:

- Understanding Earth systems that relate to the environment in deep time, the present and the future and include water resources, hazards, climate and linked biological/climate/environmental systems

- Understanding where future energy resources will come from and how that will affect the environment, including linked energy/environment/biological systems, CO_2 sequestration and unconventional/conventional energy resources

- Understanding processes that shape the solid Earth

The Department's success in meeting the challenge of linking environmental management and stewardship to energy growth will depend in large measure on its ability to support distinguished faculty, attract top tier students and provide world class classroom and laboratory facilities.

As KU Geology Associates, we can help in many ways, including making personal financial contributions and encouraging employers to donate funds and equipment to the department and to hire KU Geology graduates, who have much to offer. I urge each of you to consider how you can best help the Department achieve its goals, not just for KU Geology, but for the ultimate benefit of the emerging global community.

— Scott Adams

Geology Associates Advisory Board 2006-2007

Previous Chairs
Merrill W. Haas: 1971-1989
Hubert H. Hall: 1990-1994
William L. Adams: 1995-1999
William D. Pollard: 2000-2004

Chair of the Advisory Board
Scott Adams, Retired**,** Reservoir Manager, Hamaca Project, Venezuela, Chevron Corporation

Chair, Department of Geology
Robert H. Goldstein, Haas Distinguished Professor

Current Advisory Board Members
Scott Adams, Retired, Chevron
Joel Alberts, Sr. Exloration Geologist, Alpine, Inc.
Edward A. Beaumont, Independent Geologist
Ross A. Black, Associate Professor, University of Kansas
Larry Brady, Retired, Kansas Geological Survey
Bill Brooks, President, Brooks Exploration, Inc.
Mark Degner, VP – Sr. Program Manager, ENSR
Larry E. Denver, Business Manager, Merak, Schlumberger Information Solutions
Steven C. Dixon, Executive Vice President – Operations & COO, Chesapeake Energy Corporation
Gonzalo Enciso, Vice President Exploration Portfolio & Chief Geologist, Hydro Gulf of Mexico L.L.C.
Mary Engleman, Exploration Geologist, Canyon Energy, Inc.
William L. Fisher, Dean, Jackson School of Geosciences, University of Texas at Austin
James M. Funk, Independent Geologist, James M. Funk & Associates
Tony Gogel, Retired, BASCOR Environmental, Inc.
Stuart Grossman, Retired, Exxon Exploration Company
Hubert H. Hall, Exploration Consultant, retired from Exxon
H. Jerry Hodgden, President, Hodgden Oil Company
C. W. Holien, Sr. Geological Specialist, Phillips Petroleum Co.
B. D. Holland, Chairman – CEO, First International Oil
Dan Kennedy, Geological Advisor, Devon Energy Corporation
David Killen, P. G., Malcolm Pirnie, Inc.
John Klein, Managing Director – International, Forrest Oil Corporation
Kenneth Lister, Project Manager, SCS Engineers
Robert M. Mason, Regional Exploration Manager, Meridian Oil Company
David J. McBride, Area Manager for S.E. Asia, ExxonMobil Exploration Co.
R. E. McDonald, Geologist
William D. Pollard, President, Burnett Oil Company
Bradford E. Prather, Geological Advisor, Shell International Exploration and Production Inc.
A. Scott Ritchie, Chairman, Ritchie Exploration, Inc.
Mike Seeber, Manager of Geoscience Systems, Anadarko Petroleum Corp.
Jim Snyder, President, Snyder Exploration
George Stanley, Professor, University of Montana
Michael D. Staton, L. G., SLR International Corp.
Doug Strickland, Exploration Manager, Wolverine Gas and Oil Corporation
Jan F. van Sant, Executive Director, American Geological Institute Foundation
Eric G. Vogl, Geoscience Project Manager, ExxonMobil Development Company
Ron Wallace, Advance Geologist, Georgia Environmental Protection Division
Jane M. Willard, President/Principal Geologist, EnPro Assessment Corp.
Robert Williams, Owner, Imperial Oil Properties, Inc.
Marvin Woody, Prospector, Mewborn Oil Co.

Ted Beaumont and Jim Funk

Dan and Nancy Kennedy

McBride Looks Back at a Great Career

You could call Dave McBride's path the natural life cycle of a committed G-Hawk.

Thirty-six years ago as an eager student, McBride (MS '74, PhD '77) gave Department tours to members of what was then the newly created Geology Associates Advisory Board. Beginning at that first meeting in 1971 and later as the board's student representative, McBride found trusted mentors who helped him launch his career at Exxon and later ExxonMobil. As an alumnus member of the board for the past 28 years, he has tried to return the favor by helping guide the Department's direction. He and his wife, Carolyn, also made a series of financial gifts for KU Geology.

McBride recently retired from ExxonMobil Exploration Company, but he continues his work with the Geology Associates. His decades on the board make McBride the longest serving member in the history of the Department.

McBride says he is proud of the board's accomplishments. They include providing information about industry needs and trends, passing on information about current job opportunities to students and providing the kind of financial support that helps keep the Department strong.

Dave and Carolyn's gifts include donations to the Geology Associates Fund, which helps the Department meet unexpected challenges and opportunities. They have given to the Geology Associates Equipment Fund, which provides money to purchase, repair and replace equipment. They also have been major supporters of the Hedberg Lecture Fund, which honors the Princeton University geologist and KU graduate Hollis Hedberg (1903-1988).

Giving back to KU Geology is the right thing to do, McBride says.

"That's where the future comes from."

KU Geology has been a continuing source of qualified geoscientists for academia and the petroleum industry for decades. Working on the board and making donations is about more than helping create the next generation of geologists, though.

"It's important to give a little back to the place that helped us get where we are today," he says.

The board provided numerous mentors for McBride. Among them were Merrill Haas, the board's first chair. Haas was also a vice president at Exxon.

"He was a commanding leader and demonstrated dedication to KU and to maintaining relationships and interactions with the university," McBride says.

Former board member and mentor William Bramlette, a vice president for research at Exxon, stressed the importance of research. Former board member Richard Meek, a senior manager in Exxon's exploration department, mentored McBride through what McBride calls Meek's "total involvement with the basic science and the advancement of technology."

Although McBride has been involved in geology since 7th grade, he didn't connect to the Department until 1969 when he was an undergraduate at Marietta College in Ohio. That year he attended KU's summer field camp in Colorado.

That experience and his graduate work at KU did an excellent job of preparing him for his career, McBride says.

"There has never been a doubt that KU's strong focus on the fundamentals of geology with a strong emphasis on field experience were right on target," he says.

Those factors plus the strong work ethic instilled by the faculty helped McBride navigate three decades of change.

McBride retired from ExxonMobil Exploration as Area Manager for the Asia-Pacific Region. Working out of the corporation's Houston office, McBride was responsible for day-to-day exploration in the region.

McBride reports that retirement has been great. He and Carolyn live in League City, south of Houston. They have helped raise funds for local charities and have pursued long-time interests in boating and music.

Both Dave and Carolyn took up the steel drum several years ago and enjoy playing music together at home. Dave has added conga and other percussion instruments and has been fortunate enough to play with several trop rock, Jimmy Buffett style bands.

Dave volunteered for 12 years with the U.S. Coast Guard Auxiliary, teaching boating safety, conducting safety inspections and participating in search and rescue operations.

The couple now enjoys relaxing and visiting with friends on their motor yacht which is moored within walking distance of their home.

Department Honors Hall with Legacy Award

Hubert "Hub" Hall, a retired ExxonMobil geologist and longtime supporter of the Department of Geology, has become only the second recipient of the G-Hawk Legacy Award.

Honoring benefactors who have forged legacies that will help geology students for generations, the award recognized Hall's "generous support" of the Department and "inspired leadership" of the Geology Associates Advisory Board.

Always an involved geology alumnus, Hall (BS '49) was able to become more active with the Geology Associates after he retired in 1986. He chaired the advisory board from 1990 to 1994.

Hall received the award at last October's Geology Associates Advisory Board meeting. Not presented every year, the award is given for exceptional merit

"For several decades, Hub has been a tireless advocate of KU Geology," says Scott Adams, current Advisory Board chair. "He has made a deep personal commitment to inspiring and motivating KU Geology students, especially in field geology."

Hub and his wife, Kathleen McBride Hall, established the Laudon Fund in honor of his late mentor, Professor Lowell Laudon. The fund provides financial support for field trips.

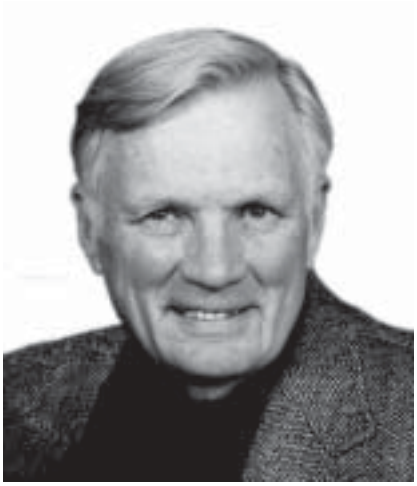
"Through his direct support of KU field programs, Hub has made it possible for current and future generations of students to experience geologic field work at its best, and to utilize modern field and lab equipment to further their studies," Adams says.

"All of us on the KU Geology Associates Advisory Board are extremely grateful for Hub's contributions."

Hall returned the complement, saying that he would tell a new KU geology student that he or she had picked the right place to study. The Department is "very good," Hall says, pausing and then adds, "*really* good."

Born and raised in California, Hall came to Lawrence when he was a senior in high school in 1944. His father, E. Raymond Hall, had taken the dual positions of director of KU's Natural History Museum and chair of the Department of Zoology. The elder Hall was a world-renowned vertebrate zoologist who helped ingrain a love of everything Jayhawk into his son.

KU provided a great education, great fun, and the love of his life. On Mount Oread, Hall met his wife, Kathy, an education major who earned a bachelor of art's degree the same year her husband earned his undergraduate degree. Hub later received a master's and doctorate at the University of Wisconsin.



Hall's professional life started at an Exxon research facility in Tulsa, Okla., but his work soon took him and Kathy around the world. Their postings included France, England, Spain and Argentina. From 1965 to 1970, they lived in Singapore, where Kathy taught at the American School. For Hub, the city was home base for petroleum exploration in Southeast Asia

"It was just opening up," he says.

Hall's career also took him to the Middle East in the 1970s where he worked in several countries, including Libya and Saudi Arabia. His work in Tehran, Iran, during that period put him in the heart of the rebellion against Shah Mohammad Reza Pahlavi.

For more than a week, Hall was trapped in the capital as the followers of Ayatollah Ruhollah Khomeini burned buildings and marched in the streets. Although Hall says he never felt panicked, he did note that he said more than a few prayers. Hall and other Exxon employees were evacuated by the British.

Hall retains his enthusiasm for geology.

Being a geologist is like having a delightful puzzle to solve every day. The joy comes from "trying to figure out what happened in the world in the past, what you can do about it, how you can use it, and how you can apply it," he says.

Hub, Kathy and their black lab "Jay" (for Jayhawk) live outside of Lecompton, Kan., in a house tucked into the woods.

The first winner of the Legacy Award was A. Scott Ritchie (BS '54), chair of Ritchie Exploration, Inc.

Geology Associates Give Back

Annie and Dan Merriam (BS '49, MS '53, PhD '61)

Dan Merriam tries out Chancellor Francis Snow's desk

Donating for the Department of Geology was an easy decision for Dan and Annie Merriam. When the couple established a research award for graduate students this year, they were simply supporting the best.

"It's one of the best geology departments in the country, " says Dan. "A lot of that is based on R.C. Moore's work in the 1920s, 1930s and 1940s. They've continued that tradition and do an excellent job."

A former student of Moore's, Dan recently completed a biography of the late professor and director of the Kansas Geological Survey. (See p. 4)

The Merriam Research Award will be given annually to an outstanding KU geology graduate student to support thesis or dissertation research. The recipient will be chosen by the geology faculty.

The first Merriam Award winner, Bekah Ost, was announced in May at the Honors Banquet.

"There's a little irony in that," Dan says. "My understanding is that her research is in the Piceance Basin in northwestern Colorado. That's where I did my masters thesis in '52."

Establishing a fund to help students is important to the Merriams.

"We believe in supporting students as best we can," Dan says. "I think it's much better for students if they don't have to spend all of their time trying to figure out where their next meal is coming from. They do better work."

The couple have always been committed to students. Dan served as chair and a distinguished professor of geology at Syracuse University and then at Wichita State University. Annie did volunteer work with international students both at Syracuse and KU.

Dan's career took him to Union Oil Co. and to the Kansas Geological Survey. He retired in 1997 with emeritus positions at the KGS and Wichita State. When asked about his retirement, Dan chuckles and says that he is "still working full time." He is best known these days as the Department Historian.

Annie and Dan live in Lawrence and have five children and 13 grandchildren.

Joel Alberts (BS '80)

Joel Alberts celebrates at the Geology Associates dinner

Field Camp is at the heart of the Department's success in training geologists, says Joel Alberts, a petroleum geologist who works in Edmond, Okla. Alberts' fondest memory of Field Camp has nothing to do with education, though. It's all about a talking bush.

"We were heading down to the Arkansas River after a long day of mapping when we heard a deep voice from a bush instructing us that we had now left the map area and that it would be advisable to turn around," Alberts says.

Other students were already swimming at the river, but he and his friends had been caught. His professor was hiding behind the bush to turn back students who were skipping out of their assignment.

"The talking bush intervened by turning us around," Alberts says.

For the record, Alberts would like it to be known that he and his friends had already completed the day's assignment when the bush intervened.

Field Camp is more than just funny stories. That's why Alberts has donated to the Department to support Field Camp over the years.

"Field Camp is the place where theory meets reality," he says. "I believe even with the latest technology, one needs to experience first hand the practical application of the rocks in the field. Field camp provides the opportunity for students to have direct exposure to the rocks."

Alberts says that the quality of the Department's faculty was also vital to his career. He names

Professor Roger Kaesler, Associate Professor Tony Walton and Emeritus Professor Ernest Angino as being among the many professors who made a difference.

Alberts also values the Department's long tradition of giving back.

"I was fortunate to be in a department with a long history of support," he says. "I feel it is a professional obligation to not only mentor, but to also contribute money."

Alberts is working as a consultant, specializing in resource plays, particularly in gas shales, which take a lot of special attention to the rocks. After all these years, he retains his interest in the crimson and blue.

Joel has been married to fellow Jayhawk Susan Perucca Alberts for 26 years. They have three sons, two attending Oklahoma State University. One is a junior at Deer Creek High School.

"Any Jayhawks are always welcome in Edmond," he says.

Sarah (Santee) Darby (BS '01)

For Sarah (Santee) Darby, donating to the Department of Geology is a dream come true. A general fund donor today, Darby hopes to be able to set up an endowed fund for geology scholarships in the future.

Ryan and Sarah Darby show their spirit

"That would be my ultimate goal," Darby says. "That's something I would love to do for someone else because it was a huge deal for me."

A native of Tulsa, Okla., who is passionate about geology, Darby got into the field in large part because she was given a scholarship set up by Hub and Kathy Hall. (More on the Halls is on p. 35.)

"I hadn't taken geology classes in my high school," she says. "My school didn't offer that kind of stuff, but I loved science, and I knew that I probably wanted to study science. I also wanted to go to KU, but I was from out of state and was looking for financial aid."

When she received the Hall scholarship, Darby decided to try geology. It was a match made in heaven.

"It worked out better than I could have ever hoped," she says. "I love geology. I also fell in love with the whole Department."

Darby says one of the highlights of her KU career was meeting the Halls.

"They had influenced my life so much," she says. "They're just the nicest people. That also made me think that whenever I'm able to I'd like to establish a scholarship that can help someone else."

The training Darby received from the Department gave her a great grounding to pursue her graduate education and career, she says.

Darby earned a master's degree in geology from the University of California, Davis. For the last two years, she has worked in Tulsa as an associate geologist with Samson Resources, an independent energy exploration and production company.

Connections with the KU Department remain important to Darby.

"They gave me a lot of great advice," she says. "It's nice to have the contacts up there still. I feel like not just the professors, but everybody, including the staff and the associated research people, are great."

Darby and her husband, Ryan, a KU environmental studies graduate, are expecting their first child.

Many Geology Associates donations support scholarships. Bob Goldstein poses with 2007 scholarship winners Kwan Yee Cheng, Kyle Gorynski and Garrett Johnson

Software Boosts Research and Hands-On Education

A donation by GeoPLUS Corp, now a part of IHS Energy, has made practical education more realistic and enhanced the research capabilities of both the Department of Geology and the Kansas Geological Survey. GeoPLUS provided copies of its PETRA and PetraSeis software packages to KU at reduced cost.

The programs are routinely used in the undergraduate-level Petroleum and Subsurface Geology class and the graduate-level Geoscience and Petroleum Engineering course, which is a joint effort on reservoir characterization of the Department of Geology and the KU Petroleum Engineering Program.

Petroleum and Subsurface Geology students prepare studies of oil fields in Kansas using PETRA to convert digital data from the KGS website into maps and cross-sections. Last year I took the students from the Fall 2006 class to Wichita where several of them presented results of their studies to a meeting of the Kansas Geological Society. The session also gave several KU Geology alumni a chance to meet current students.

In the spring semester, students from Geology and Petroleum Engineering used the software to study a small field in Russell County to determine whether the area deserved additional investment. This study used data provided by Murfin Drilling Co. and publicly available data. Students from this class and students from the Exploration Geophysics class at Kansas State University presented their results to Murfin. After modeling the field and performing economic analysis of possible investments, the class recommended proceeding with caution.

Students and scientists in the Petroleum Research Section of the KGS routinely use PETRA to depict the subsurface configuration of oilfields and various other areas in Kansas. On-going studies include that by master's candidate Ben Ramaker, who is examining Cherokee channels in Ness County. Rachel Dvoretsky is using PETRA to map the configuration of Miocene limestone in Spain as part of her master's research with Department Chair Bob Goldstein and KGS Senior Scientist Even Franseen.

PETRA and PetraSeis are widely used in industry for subsurface GIS studies and seismic analysis. Students who used the software at KU have been able to use the same programs or similar ones with minimal training as they have moved into working in the industry.

Current student Mike Christie, for example, took both Petroleum and Subsurface Geology and the Geoscience and Petroleum Engineering courses during the 2005-2006 academic year. He used PETRA extensively during his internship with EnCana in the summer of 2006 and worked as the teaching assistant for the Petroleum and Subsurface Geology course during the following fall.

Christie is now finishing his master's research on a project that involves the interpretation of sections from seismic and ground-penetrating radar data, which is ideal for application of PetraSeis.

-Tony Walton

Graduate student award winners from the 2007 Honors Banquet are, from L to R; Top Row-Jeffery Schroeder, Markella Hoffman, Chris Hager, Arne Sturm, Eugene Szymanski, Chris Lipinski; Middle row-Karla Leslie, Bethiah Hall, Kim Montague, Melissa Wolfe; Front Row-Rachel Dvoretsky, Bekah Ost, Celina Suarez, Marina Suarez

DONORS TO THE GEOLOGY ASSOCIATES PROGRAM CONTRIBUTIONS FROM JULY 1, 2006 THROUGH JUNE 30, 2007

The Department extends its appreciation to all G-Hawks for their generous support.

A. Scott & Carol Ritchie Hydrogeology Fund
Patrick M. Cobb
Stephen R. Hoffine
Edwin D. Lindgren
Carl D. & Margery McElwee

Angino Geochemistry Scholarship
Susan A. Carroll
ExxonMobil Foundation
Lisa Smith Vogl & Eric G. Vogl
Matthew E. Wilson

Anthony Walton Geology Equipment Fund
David W. & Martha C. Clothier
ExxonMobil Foundation
Roscoe G. Jackson II
Neal A. LaFon
Kathryn Wohlford Pollard & William D. Pollard
Douglas H. Rofheart
Duane H. & Peggy Sackett
W. Randall & Edna J. Van Schmus

Chesapeake Research Fund
Chesapeake Energy Corporation

Edward J. Zeller Geology Fund
Gisela M. Dreschhoff
Frederic R. & Felisa Puszkin Siegel
Mary Alice Soule Spencer

Erasmus Haworth Memorial Fund
Frederic R. & Felisa Puszkin Siegel

Geology Associates Equipment Fund
ExxonMobil Foundation
Jeffrey M. & Maureen Yoke Jordan
David B. & Kimberly M. Killen
William Thordarson
Eric G. & Lisa Smith Vogl

Geology Department (Geology Associates Fund)
Scott D. & Diana Bandler Adams
Donald J. & Kathryn S. Adams
Anadarko Petroleum Corporation
William T. Anderson, Jr.
AT&T Matching Gifts Program
Scott L. Banks
Bruce D. Becker
Virginia Ochs Becker
Steve J. Blanke
The Boeing Company
Mary E. & Lawrence L. Brady
Henry H. & Ardith R. Bretthauer
Michael D. & V. Catherine R. Brondos
Stephen C. & Janelle L. Burns
James J. & Paula L. Byrnes
Paul Carageannis
Ronald R. Charpentier
Chevron Matching Gift Program
Chevron Products Company
James L. & Carolyn Cornette
John A. & Joan Grotenhuis Cramer, Jr.
Thomas F. & Mildred Caldwell Cudzilo
Ryan & Sarah Santee Darby
Stephen W. & Mary C. Dart, Jr.
Bruce W. Dawson
Marilyn A. & Mark S. Degner
Devon Energy
Martin K. & Twyla F. Dubois
Toni L. Eilerts
Robert G. & Mary Ann Elliott
EnCana Oil & Gas (USA) Inc.
ExxonMobil Corporation
ExxonMobil Foundation
Charles A. Ferguson
Philip L. & Maxine Ferguson
Allen H. Fetter
Denise A. & David M. Filkins
William L. & Marilee Booth Fisher
Christopher J. Fleisher
Elgin L. Flott
Stephen T. Franklin
Paul C. Franks
James M. Funk
Dwight C. Gilkison
Anthony J. & Celeste Cody Gogel
David J. Goldak
Mark A. Gust
Roger K. Hahn
Hubert H. & Kathleen M. Hall
Thomas L. Hall
Jim & Stefanie Taunton Hanna
Ronald M. & Phyllis S. Hedberg
H. Jerry Hodgden
Hodgden Oil Company
Wendel J. Hoppe
William J. & Coleen C. Hurley
John & Naida J. Jimenez
Andrew J. & Diane King Kalik
Steffanie M. & Brian O. Keefer
Marvin A. Keller
Dan J. & Nancy L. Kennedy
Kerr-McGee Foundation Corporation
Randall K. Kilian
Carl B. Kinell III
George D. Klein
William E. & Linda Kobs
Jonathan P. Lange
Lauren R. Lange
Quinn C. Laukel
Thomas L. & Linda Bartlett Lentell
Kenneth H. & Carina H. Lister
Diana D. Long
John E. Lucken
John A. Luczaj
Marathon Oil Company Foundation
Robert M. & Penny Stebor Mason
Jesse M. & Frances Hara McNellis
Alistair W. & Judith Saari McCrone
Kent C. & Annette F. McDonald
Jason R. McKirahan
Vicki Henderson McRae
John R. & Marilyn Schnackel Meek
Verlin G. & Marilyn Alpert Meier
The Merck Company Foundation
Daniel F. & Annie Merriam
Craig E. Merrifield & Barbara I. Evans
Max G. & Patricia Harris Merrill
Dean M. & Gloria Horn Miller
Minerals Technologies Incorporated
James E. & Jane A. Nichols
David W. Niven
Robert L. Nusbaum
Janna Beth Oetting & Daniel P. Huffman
Walter I. Phillips
Jacob L. Porter
Bradford E. Prather
Leonard M. & Pauline M. Rickards
A. Scott & Carol L. Ritchie
Carolyn R. Rohs
Sylvie Johnson Rueff & Glenn W. Garneau
Paul R. Saueracker
SBC Foundation
David M. Schichlein
Suzanne J. P. & Dale G. Schlinsog
Heather Ross Schmidt
Mark K. & Kyoko Otsu Schroeder
Carole A. & Robert W. Scott
Shell Oil Company Foundation
Robert D. Shuster
Karen K. Smith
Society for Sedimentary Geology
Michael D. Staton
Andrea S. Steinle
Scott M. Strong
John W. Switzer
Barbara R. & John J. Thomas II
Maurice James Thompson
Mark A. & Nell Stewart Thompson

Frank S. Trautman
Tom & LeeAnn Holzknecht Turmelle
Albert N. & Bobbie J. Tyler
Cynthia A. Van Dyke
Myron L. Vance
Paul M. & Alison Sherwood Vijgen
Gary R. & Regina Vordwald
Ronald J. Wallace
W. Lynn & Karen Amundson Watney
Robert G. Welch
Krzysztof M. Wojcik
Wolverine Gas & Oil Corporation
Jeffrey R. Zoller

Geology Department – Graduate School
Paul J. & Kandra M. Attwood

Geology Scholarships
ConocoPhillips
Michael T. May & Elizabeth A. Conroy

H. A. & Elsie Ireland Scholarship
Robert D. & Virginia Ireland Beu
Chevron Matching Gift Program
LeRoy L. DeNooyer
William J. & Karen Trubitt Johnson
John E. Lucken
Ronald R. McDowell
Hamilton C. Perkins
Joseph R. Pierson, Jr.

Henbest Fund in Geology
Kevin R. Evans
Arch H. Layman, Jr.

Hollis Dole Hedberg Memorial Lecture Fund
ExxonMobil Foundation
David J. & Carolyn D. McBride
David A. & Edith H. Ross

Imogene A. Herndon Scholarship
Sue Ann & Richard M. Wright, Jr.

James A. & Rowena E. Peoples Scholarship in Geophysics
Henry H. & Ardith R. Bretthauer
Chevron Matching Gifts Program
Patrick M. Cobb
Murrey E. & Kathy Helmers
Elizabeth J. Johnson
Paul D. & Stacie Daniels Vincent
Marcia Ring Winslow

Jan F. & Mary van Sant Geology Excellence Fund
James D. Snyder
Jan F. & Mary van Sant

Louis F. & Bets Dellwig Geology Field Camp Scholarship
Kevin P. & Katherine L. Blair
Charles E. Bondurant
Lisa D. Bush
Jane M. Casteline
William R. & Vera Kelly Dickson
Emerald Operating Company
ExxonMobil Foundation
Lee C. & Darcy L. Gerhard
Thomas L. Hall
Elden C. & Ilse Nesbitt Jones
George D. Klein
John E. Lucken
Michael S. & Sandra L. Perry
James D. Snyder
Mary Alice Soule Spencer
Pei-Lin & Hsia-Fen Tien
Gary D. & Beverly E. Webster

Lowell R. & Florence S. Laudon Fund in Geology
ExxonMobil Foundation
Hubert H. & Kathleen M. Hall
Mazzie Lane & William E. Steger

Max L. & Aliene W. Krueger Fund
Arch H. Layman, Jr.

Merriam Graduate Student Research Award
Daniel F. & Annie Merriam

Merrill Haas Fund – Geology
Joel A. & Susan Perucca Alberts
Henry H. & Ardith R. Bretthauer
Bill J. & Grace L. Brooks
Lisa D. Bush
Chevron Matching Gift Program
Carroll R. & Mary Anderson Hird

Phillips Petroleum Geology Scholarship
ConocoPhillips

Ralph C. Lamb, Jr. Geology Fund
Margaret Longwood Lamb

Raymond C. & Lilian B. Moore Fund in Geology
M. Robert Douglass
ExxonMobil Foundation
Glenn B. Helmick
Richard F. Meyer
Joseph R. Pierson, Jr.
Carole A. & Robert W. Scott
Frederick M. Swain, Jr.

Raymond C. & Lilian B. Moore Scholarship in Geology
Kevin R. Evans
Stuart & Harriett Grossman
Donald E. & Marjorie E. Hattin
George D. Klein
Arch H. Layman, Jr.
George D. & Barbara C. Stanley

Roscoe G. Jackson II Graduate Research Award in Geology
Roscoe G. Jackson II

Roy & Freda Lehman Scholarship
Sue Ann & Richard M. Wright, Jr.

Stelbar Oil Corporation Geology Graduate Student Support Fund
John C. & Molly Shawver

Lee and Darcy Gerhard

Geology Life Associates

All alumni and friends of the Department of Geology at the University of Kansas become Geology Associates when they make a donation to the Department. Many of these individuals have contributed to funds established by KU Endowment to provide support for various special purposes and activities of the Department. The category of Geology Life Associate has been established to provide special recognition in gratitude to those Associates who have donated $5,000 or more since the Geology Associates organization was formed in 1968. This list will be published in each issue of the G-Hawker in order to repeatedly convey our thanks for the generosity of these men and women.

Note: If you do not see your name here and believe it should be, please contact Bob Goldstein (gold@ku.edu) or Liz Gravatt (egravatt@ku.edu) so that we may correct our records.

Diana Bandler & Scott D. Adams
William L. & Betty Adams
Karl E. & Virginia Ochs Becker
Robert D. & Virginia Ireland Beu
Steve J. Blanke
William A. & Roberta W. Bramlette
Norman L. & Jenifer M. Burnett
Don F. & Jacquelyn N. Carlos
John L. & Ruth C. Carter
Richard L. & Mary E. Conroy
John A. & Joan Grotenhuis Cramer, Jr.
Neal P. Cramer
Annabel Casey Crook
Watson & Eleanor Dickerman
Gisela Dreschhoff
Mary Engleman
William L. & Marilee Booth Fisher
David W. Foster
Frances M. Fritts
James M. & Sherree G. Funk
Rose Haworth Gidney
Robert S. Grinnell, Jr.
Stuart & Harriet Grossman
Merrill W. Haas
Hubert H. & Kathleen M. Hall
John W. Harbaugh
Dorothy Gatewood Hawkins
Ruth Hay
Hollis D. Hedberg
Harold D. & Imogene Herndon
Fred T. Holden
Frederick G. Holl
Harold W. Hoots
Bill D. & Carolyn A. Holland
Wendel J. Hoppe
Elsie B. Ireland
Marjorie W. Ireland
Roscoe G. Jackson II
Margaret S. Josselyn
Marvin A. Keller
T. E. (Tim) Kelly
Dan J. & Nancy L. Kennedy
Carl B. Kinell III
Kenneth M. & Vera B. Knoll
Max L. & Aliene Winchester Krueger
Ralph C. & Margaret L. Lamb, Jr.
Paul R. Lamerson
Kirsten (Kise) Krueger LaMontagne
Estate of Roy P. Lehman
Kenneth H. & Carina H. Lister
Diana D. Long
David J. & Carolyn McBride
Estate of Burton McCollum
Alistair W. & Judith Saari McCrone
Robert E. McDonald
Dean A. McGee
Perry M. McNally
Richard M. & Barbara Werbe Meek
Daniel F. & Annie Merriam
Percy A. & Katherine Meyers
Dean M. & Gloria Horn Miller
A. Lyndon Morrow
Richard M. Myers
Charles Orth
Harvey L. Orth
Ruby Ott
Joseph M. & Alice Patterson
Rowena Ewing Peoples

Michael S. & Sandra L. Perry
William D. & Kathryn Wohlford Pollard
Bradford E. Prather
Wallace E. Pratt
Leonard M. & Pauline M. Rickards
A. Scott & Carol L. Ritchie
Duane H. & Peggy Sackett
Suzanne J. P. & Dale G. Schlinsog
Gladys Long Selig
John C. & Molly Shawver
Patricia Gore Shields
Richard L. Shields
Kenneth T. & Donnaleen Jones Smith
James D. Snyder
Mary Alice Soule Spencer
George D. & Barbara C. Stanley, Jr.
John W. & Martha Phillips Starr
Barbara R. & John J. Thomas II
William Thordarson
Curt Teichert
Albert N. Tyler
Jan F. & Mary van Sant
Myron L. Vance
Eric Vogl
Ronald J. Wallace
Ray Pearce Walters
Clifford L. Willis
Dr. Richard S. & Caroline W. Wing
Roger L. Wood
Sue Ann & Richard M. Wright
Edward J. Zeller

In the Beginning: Geology During KU's Formative Years

In 1861, the Kansas Legislature authorized a state university and approved 72 sections of land for its use and support. Five years later, KU opened its doors with a faculty of three, one lecturer, a janitor and 55 students (all from Kansas but three). The first KU catalogue listed the Rev. R.W. Oliver as chancellor (Table 1) and Francis Huntington Snow as professor of mathematics and natural sciences. Snow was a Congregationist and balanced the religious affiliation of the other two, a Methodist and Baptist (Clyde K. Hyder, *Snow of Kansas*, 1953). Six departments served the first students, including the Department of Science, Literature and the Arts. Salaries for faculty members were $1,600 per annum. Tuition was $10 a term, and all students were required to attend devotional exercises each morning in chapel.

KU's Early Chancellors

Year	Chancellor	Discipline
1865-1867	Rev. Robert W. Oliver	theology
1867-1874	Gen. John Fraser	mathematics
1874-1883	Rev. James Marvin	mathematics
1883-1889	Joshua A. Lippincott	mathematics
1889-1890	William C. Spangler (acting)	
1890-1901	Francis Huntington Snow	science

At first, there were two course tracts: Classical Collegiate Course and Scientific Collegiate Course. For the Classical Course, students took language, mathematics, history, Latin/Greek, mineralogy and geology. For the Scientific Course, they took the basic courses plus chemistry, physics, zoology, and mineralogy and geology. Students completing the Classical Course were granted a BA degree, and those in the Scientific Course earned a BS. Three years after graduating, a former student in good standing was automatically granted a MA degree.

After Oliver left in 1867, John Fraser, a mathematician, became chancellor and president of the faculty. By 1870, the faculty had been enlarged to nine and engineering had been added to the curriculum. Francis Snow was teaching geology, and W.H. Saunders was teaching mineralogy (Fig. 1). When Saunders left, Fred E. Stimpson replaced him in 1871 as professor of chemistry and physics with G. Patrick becoming assistant professor of natural science in 1874.

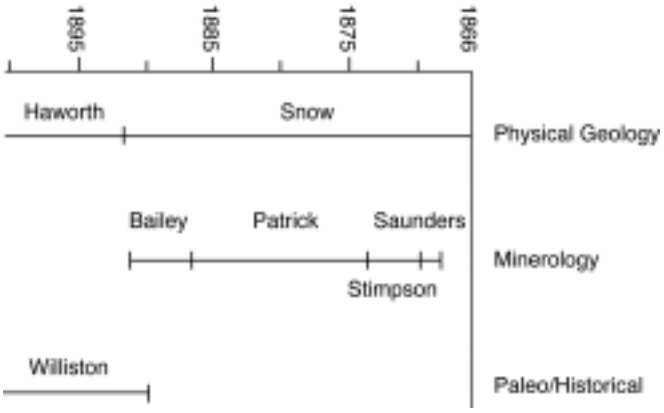


Figure 1. Teachers of geology, mineralogy, and paleontology at the University of Kansas from 1866 to 1900.

North College Hall was the first building on Mount Oread. It was described by Robert Taft in his *The Years On Mount Oread* (1955) as the most beautiful school building in the state. The Natural History program occupied rooms in the south wing with cabinets containing typical rocks and fossils chiefly from Kansas and Colorado.

In the fall of 1872, University Hall (later renamed Fraser Hall) opened and Snow and Patrick moved to the new facility from North College Hall. The list of graduates from the first commencement was included in the 1873-74 University catalogue, and included three with the BA degree and one for Civil Engineering (Fig. 2).

Fraser Hall was larger and more spacious, and the Natural History Department occupied most of the second floor (Fig. 3). By now the geology specimens were housed in the Geological Cabinets and there was a library of sorts.

Honorary degrees were given starting in 1874: doctor of laws and doctor of divinity. By the end of the first decade, the University had a faculty of 12, a student body of 237 (from 31 Kansas counties and

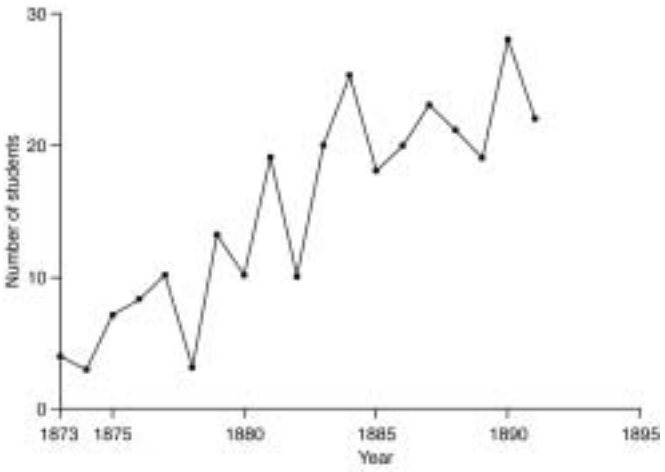


Figure 2. Degrees granted by the Department of Science, Literature, and Arts by year. Numbers include BA (AB), BS, MA, CE, and BCE (data from KU yearly catalogues, courtesy KU Archives, Spenser Research Library). It is not known how many, if any, were 'geology' or 'paleontology' majors.

Figure 3. The floor plan of KU's old Fraser Hall shows the plan of the second floor, where science was taught. It included a hall for general assemblies and exams (G), a lecture room for natural history and geology (A), geological and botanical Cabinets (D) and Snow's office (E).

elsewhere) with an almost equal number of males and females, and had conferred 1,024 degrees and three honorary degrees.

Natural History was thriving under the direction of Francis Snow (Fig. 4). Courses taught in Natural History included at the Junior level: Comparative Anatomy of the Vertebrates, Dissections of Mammals and Birds, Dissections of Reptiles and Fishes, Advanced Botany, Meteorology, Astronomy, Human Physiology and Logic. At the Senior level, students took Comparative Anatomy of the Articulates; Comparative Anatomy of Mollusks and Radiates; Dissections of Insects and Crustaceans; Dissections of Cuttlefishes, Clams, Star-fishes, etc.; Mineralogy; Metaphysics and Geology.

Textbooks included James Dwight Dana's *Manual of Geology* (1864) and his *System of Mineralogy* (1868), Louis Agassiz's *Essay on Classification* (1856) and *Geological Sketches* (1866) and Agassiz and A.A. Gould's *Principles of Zoology* (1848) and Sanborn Tenney's *Geology* (1860).

Figure 4. Wilson Sterling's portrait of Chancellor Francis Huntington Snow, KU Chancellor (from History of K.S.U., 1866+1891, 1891).

Before Francis Snow was setting up his courses at KU, Benjamin F. Mudge was making the first geological survey of the state, the results of which were published in 1866. The one-year survey was followed by another one-year survey, this one headed by George C. Swallow. His results were more detailed than Mudge's, but when he was finished and his report was published in 1865, nothing more was done with a geological survey until the current one was commissioned in 1889 (Rex Buchanan, *To Bring Together, Correlate, and Preserve*,1989). As it would turn out, Mudge influenced young Samuel Wendell Williston, who dedicated his life to natural science. (Henry F. Osborn, *Samuel Wendell Williston,1852-1918*,1918).

Mudge gave the KU University Lecture Course in 1877 on "The Value of Scientific Investigation" and was listed as a lecturer in geology and paleontology in the 1878 catalogue. There is no reference to him after that in relation to KU geology. By now, there were six courses of instruction: Classic Course; Scientific Course; Modern Literature; Course in Civil Engineering; Course in Natural History, which was heavy in biology; and Course in Chemistry. The Normal

School (School of Education) and Law School came later. They were followed by the pharmacy and then pre-med courses in anticipation of a medical school. In 1882, Lewis L. Dyche was added to the faculty as an instructor.

In 1883, Joshua Allan Lippincott, DD, was made chancellor of the University. That year the KU faculty numbered 18 including Snow, who obtained his PhD (hon) from Williams in 1881, and the newly arrived chemist, Edgar Henry Summerfield Bailey (PhD, Illinois Wesleyan), who would teach mineralogy. The University now had teaching ranks of professor, assistant, and instructor.

By 1885 the University had grown to the extent that more room was required. In July of 1885, the Legislature authorized a science building, which later was designated Snow Hall of Natural History, appropriately named for Francis Snow. In 1886, geology and mineralogy moved into Snow Hall. At that time, Snow was teaching geology, botany, and meteorology. Bailey, the chemist, was teaching mineralogy.

The situation would change even more drastically in 1890 when Samuel Wendell Williston joined the faculty to teach paleontology, and Snow became chancellor. (Fig. 5; Elizabeth N. Shor, *Fossils and Flies, the Life of a Compleat Scientist, Samuel Wendell Williston,* 1971)

Figure 5. Portrait of Samuel Wendell Williston (about 1890), KU Professor of Geology and Paleontology (from C.K. Hyder, Snow of Kansas, 1953).

As chancellor, Snow was eager to build a reputation in the sciences and hired several outstanding scientists, including Williston (PhD, MD, Yale) and Erasmus Haworth (MS Kansas, PhD Johns Hopkins). When Haworth showed up in the fall of 1892 to establish a Department of Geology, there were 43 members of the KU faculty, including Haworth, Williston, and Bailey. These three also would form the core of the University [Kansas] Geological Survey.

The first mention of University Extension turns up in 1891. Extension courses were taught in Olathe; Kansas City, Mo.; Topeka and Wichita. Williston taught a course on geology in Wichita.

As a new professor of geology and mineralogy, Haworth set out to offer a series of courses necessary for undergraduates to obtain a geology degree. Haworth eventually taught mineralogy and petrography, physical geology and economic geology. Williston taught historical and paleontology. Graduate courses were also offered. Field work was made a part of the undergraduate degree requirement for those who were sufficiently advanced.

According to Clifford Griffin (*The University of Kansas, a History*, 1974), the university's golden age ended in 1893 when the entire faculty met with Chancellor Snow to discuss important problems and make recommendations to the Board of Regents. The first quarter of a century for KU was now history. Geology, too, would take on a new look and direction with Haworth, Williston and Bailey.

- Dan Merriam

Did You Know?

The first graduate degree in geology was granted to Erasmus Haworth in 1884. That was 13 years before the Graduate School was organized at KU, and eight years before the Department was established. Haworth later went on to become the longest serving chair of the Department, leading KU Geology for 22 years.

The first two state geologists, Benjamin Mudge and George Swallow, and the last two, Lee Allison and Bill Harrison, sported facial whiskers.

The Department has or had eight distinguished professors, R.C. Moore, Curt Teichert, Dick Robison, Paul Enos, Randy Van Schmus, Don Steeples, Bob Goldstein and Paul Selden.

Visions of G-Hawks Past
Questions for G-Hawks Present

Eight G-Hawks are hard at work in what looks like the 50s. From left to right and with some uncertainty, we think these fine fellows are Bill H. (last name?), Dick Stoneseifer, George Tappan, D.E. Owen, C. Davidson (in sweater) and Ed Swagee.

A view of field camp in the 70s shows the heat, Professor Roger Kaesler and student concentration. Do you know who's who?

Paul Franks loads a vehicle before heading into the field in 1953. Can you identify the second person in the photo?

We know a little about these photos, but not as much as we should. This is your chance to set the record straight. Please e-mail Diane Silver at dsswriter@sunflower.com with corrections.

The Legend of E. H. Lindley's Nose

A bust of our building's namesake, the late KU Chancellor E.H. Lindley, graces the foyer of the third floor of Lindley Hall. The brown patina of the statue is worn down to a bright bronze color on and around the nose.

This change in color was first reported in the era of geology professor and director of the Kansas Geological Survey, Frank Foley, during the late 1950s to early 1960s. At the time, newspaper accounts reported that rubbing the nose would help students get good grades on exams. The accounts quoted Dr. Foley as affirming this supposition.

Today the bust is a major stop on the campus tour offered to prospective students. Every day groups of bright-eyed high school seniors, with parents and younger siblings, gather at the bust and hear KU ambassadors — earnest young men and women who are good at walking backwards — tell them the various legends of Lindley's nose. These come in four categories.

1. Rubbing the nose is a good way to assure a good grade on an exam.

2. During the final exam period, the line of people waiting to rub the nose commonly stretches out the front door and across the porch.

3. In the past, fraternities have stolen the statue to have it convenient for the use of their brothers. They thought that it did help with exams, but returned the statue when they discovered that rubbing a statue's nose was no way to improve one's chances with the ladies. The statue is now bolted to the floor to prevent theft.

4. Rubbing has been so common that the nose has been worn down and replaced. The number of alleged replacements depends upon the individual ambassador who is telling the story, but it ranges from two to seven times.

I've never rubbed the nose. From personal experience I can only say that for students in my classes, the nose rubbing apparently did not pay off. Otherwise, why would I still be grading on a curve?

- Tony Walton

Mandel Named to Lead Association

Rolfe Mandel will begin his two-year term as president of the American Quaternary Association in 2008.

An associate scientist at KGS and associate professor at KU's Department of Anthropology, Mandel was named president-elect at the group's 2006 annual meeting.

The approximately 1,000 scientists in the association study the past 2 million years of earth history through many disciplines, including anthropology, archeology, botany, climatology, ecology and geology.

Degrees Awarded December 2006 - May 2007

Graduate Degrees

David A. Burnham PhD
"Paleoenvironment, Paleoecology, and Evolution of Maniraptoran 'Dinosaurs'"

Vionette DeChoudens PhD
"Calcium Carbonate Polymorphisms: New Insights into the Role of Solution Saturation State and Composition (Mg/Ca) on Calcium Carbonate Mineralogy, Morphology and Fabrics"

Martin K. Dubois PhD
"Ramp-Scale Geomodel for Reservoir and Stratigraphic Analysis of the Hugoton Field (Wolfcampian, Midcontinent U.S.A)"

Marcello Minzoni PhD
"Triassic Yangtze Platform Margin: Evolution, Internal Architecture, and Death of a Large, Attached Carbonate Platform, Guizhou Province, China"

Terrence Joseph Blackburn MS
"Development of New Applications in Volcanic (U-Th) / He Geochronology"

Robert Eslick MS
"Field Investigation of Love Waves in Near-Surface Seismology"

Natalie Brooke Givens MS
"An Integrated Study Delineating Karst and Fracture Features Affecting Reservoir Performance in a Mississippian Reservoir, Cheyenne County, Colorado"

Anthony Michael Hoch MS
"Investigation of Variable Polarization Ground Penetrating Radar Wave Propagation Through Thin Layers"

Jonathan DeWitt Jarvis MS
"An Investigation of Electromagnetic Wave Polarization for Vertical Fracture Characterization Using Ground-Penetrating Radar"

Andrew S. Madof MS
"Sequence Stratigraphic Analysis of High Frequency Sequences: Cozzette Sandstone Member, Mount Garfield Formation, Book Cliffs Colorado"

Michael A. McGlashan MS
"Monitoring Dielectrical Property Changes and Groundwater Velocity Changes in a Contaminated Aquifer Using Borehole Ground Penetrating Radar and Multi-Level Point Velocity Probes (PVPs)"

Jessica Elizabeth Poteet MS
"Porosity and Permeability Evolution of the Raytown Limestone Oolite, Central Kansas"

Theresa Rademacker MS
"Optimizing High-Frequency Vibroseis Data"

Benjamin Joseph Rocke MS
"Paleokarst Morphologies and Reservoir Implications of the Arbuckle Group on the Central Kansas Uplift, Russell and Barton Counties, Kansas"

Stacy Michelle Rosner MS
"Stalagmite Based Paleoclimate Reconstruction. Northern Venezuela: A Record of Caribbean Holocene Climate Change"

Stephen G. Schurger MS
"Integrated Subsurface Carbon Sequestration and Enhanced Coalbed Natural Gas Recovery Using Cement Kiln Emissions, Wilson County, Kansas"

Undergraduate Degrees

Scott Daniel Hannah	BA
Kathryn Danielle Nold	BA
Ryan Philip Brumbaugh	BS
Cody David Buller	BS
Travis Robert Glauser	BS
Katrina Lynn Thomas Hansen	BS
D. Michael Hillix	BS
Jared Ray Jevons	BS
Brady Allen Johnson	BS
Amber Marie Lyons	BS
Brittany Erin Meagher	BS
Jasmin Talbert	BS
Nicole M. Taylor	BS
Alec Greiner Waggoner*	BS

*Graduated with Departmental Honors

2006-2007 GRANTS AND AWARDS TO STUDENTS

Kenneth Bader
- Panorama Grant, given by the KU Biodiversity Research Center & Natural History Museum

Zach Casey
- Research Grant, given by the Geological Society of America (awarded special merit)

Kwan Yee Cheng
- Scholarship, given by the Kansas Geological Foundation

John Counts
- SEPM best poster award (honorable mention)

Bethiah Hall
- Grant-in-Aid of research, given by the American Association of Petroleum Geologists

Markella Hoffman
- Research Grant, given by the Geological Society of America
- Grant-in-Aid of Research, given by Sigma Xi

Alex Krejci
- Undergraduate Research Award, given by the University of Kansas

Ezra Kulczycki
- First Prize recipient in the Sigma Xi Student Research Paper Competition

C. J. Lipinski
- Grant-in-Aid of research, given by the American Association of Petroleum Geologists
- Research Grant, given by the Geological Society of America (named award)

Mike McGlashan
- Scholarship, given by the Kansas Geological Foundation

Bekah Ost
- Grant-in-Aid of research, given by the American Association of Petroleum Geologists

Brian Platt
- Travel Grant, given by the Geological Society of America
- Third Prize recipient at the 2006 G-Hawker Student Symposium

Willy Rittase
- Research Grant, given by the Geological Society of America

Pete Schillig
- Travel Grant, given by the Geological Society of America
- Travel Grant, given by the University of Kansas Graduate School
- Biogeophysics Student Travel Grant, given by the American Geophysical Union
- Graduate Self Fellowship, given by the University of Kansas
- Outstanding Student Paper Award, given by the Near-Surface Geophysics Focus Group at the 2007 Assembly of the American Geophysical Union

Jeff Schroeder
- Grant-in-Aid of research, given by the American Association of Petroleum Geologists
- Scholarship, given by the EnCana Oil & Gas Co.

Hayet Serradji
- Grant-in-Aid of research, given by the American Association of Petroleum Geologists

Steve Sloan
- Scholarship, given by the Kansas Geological Foundation
- Travel Grant, given by the Society of Exploration Geophysicists
- Andreas Cordsen Scholarship, given by the Society of Exploration Geophysicists Foundation

Celina Suarez
- Stephen J. Gould Research Grant, given by the Paleontological Society
- Scholarship, given by the American Geological Institute Minority Participation Program
- Best paper award given by Geological Society of America (regional)

Marina Suarez
- Research Grant, given by the Geological Society of America

Eugene Szymanski
- Research Grant, given by the Geological Society of America

Shelby Walters
- Scholarship, given by the SIPES Foundation

Melissa Wolfe
- Research Grant, given by the Geological Society of America (awarded special merit)
- Internship, awarded by DOSECC

2007 HONORS BANQUET

The Department of Geology faculty, staff, and students met for the annual Honors Banquet on May 11, 2007. The following honors, fellowships, scholarships, and awards were announced:

JAN F. & MARY VAN SANT GEOLOGY EXCELLENCE AWARD

Jennifer A. Roberts

LEO M. & ROBERT M. ORTH WATER RESOURCES SCHOLARSHIP

Gwen Macpherson

ERASMUS HAWORTH HONOR AWARDS

Outstanding Undergraduate Student
Alec G. Waggoner
Outstanding Master's Student
Michael W. Christie
Robert C. Eslick
Outstanding Doctoral Student
Marcello Minzoni

ASSOCIATION FOR WOMEN GEOSCIENTISTS SCHOLARSHIP

Rebecca Lynn Totten

SUMMER SUPPORT

Merriam Research Award
Bekah Ost
Roscoe G. Jackson Graduate Research Award
Kimberly Montague
Bekah Ost
Julie Retrum
Marina Suarez
Eugene Szymanski
Ralph C. Lamb, Jr. Geology Fund Award
Rachel Dvoretsky
Markella Hoffman
Karla Leslie
C. J. Lipinski
Jeff Schroeder
Arne Sturm
Melissa Wolfe
Joseph Patterson Scholarship
Brian Platt
Christian Hager
Celina Suarez
James A. & Rowena Peoples Scholarship
Bethiah Hall

GRADUATE SCHOLARSHIPS

Angino Geochemistry Scholarship
Marina Suarez
Darren Welch
Chevron Fellowship
Brooke Perini
Lloyd Henbest Scholarship
Alicia Rosales
Eugene Szymanski
Frederick T. Holden Scholarship
Huang Bei
Zach Casey
Curtis Congreve
Justin Fairchild
Travis Glauser
Bill & Carolyn Holland Scholarship
Alvin Bonilla
Dean A. McGee Scholarship
Christian Hager
Markella Hoffman
Paul Kenward
Ezra Kulczycki
Karla Leslie
C. J. Lipinski
Melissa Marietta
Bekah Ost
Ben Ramaker
David Riese
R. C. Moore Scholarship
David LoBue
Ian Gapp
Julie Retrum
Joseph Patterson Scholarship
Alvin Bonilla
Amanda Falk
Rachel Dvoretsky
Corinne Myers
Brooke Perini
Willy Rittase
Jeff Schroeder
Joshua Schmerge
Henry Shenk
Catherine Shirvell
Jon Smith
Arne Sturm
Erin Saupe
Eugene Szymanski
Lindsay Walters
James A. & Rowena E. Peoples Scholarship
Bethiah Hall
Lindsay Mayer
Brian Miller
Brooke Perini
Daniel Rice
Ben Rickards
Steve Sloan
Stelbar Student Support Award
Brooke Perini
Ray P. Walters Scholarship
Brian Wachter
Melissa Wolfe

UNDERGRADUATE SCHOLARSHIPS

Bradley Memorial Scholarship
Kwan Yee Cheng
Neil Kinnebrew
Kyrie Jeffery
Imogene Herndon Scholarship
Rebecca Totten
Frederick T. Holden Scholarship
Tobey Billinger
Tyler Schwenk
Rebecca Totten
H. A. & Elsie Ireland Scholarship
Kyle Gorynski
Andrew Hollenbach
Rachel Newton
Emily Riccio
James Thompson
Roy & Freda Lehman Scholarship
Karen Ohmes

GEOLOGY 360 SCHOLARSHIPS

Louis F. & Bets Dellwig Field Camp Scholarship
Chad Counts
Breanna Huff
Kyrie Jeffery
Hilary Kelly
Alex Krejci
Andrew McNeil
Joseph Miller
Tyler Schwenk
Cornelius Stanford
Whittney Webster
Frederick T. Holden Scholarship
Preston Rogers

FIELD CAMP SCHOLARSHIPS

Louis F. & Bets Dellwig Field Camp Scholarship
Andrew Hollenbach
Garrett Johnson
Lloyd Henbest Scholarship
Kwan Yee Cheng
Aubrey Collie
Javier de Palacios
James Thompson
Jesse Thompson
Frederick T. Holden Scholarship
Pema Deki
Nicholas Schneider
Joseph Patterson Scholarship
Richard Phillips
Cole Roe
Ray P. Walters Scholarship
Kyle Gorynski
Owen Metheney

1937

CLARK, J. TATE, 1825 West Ln. #108, Kentville, TX 78028. BA '37. Now 93 years old. Just returned from 3,800-mile trip, which I made to see my daughter, son-in-law and granddaughter in California, including a geological sight-seeing trip with my daughter through southern California, Arizona and New Mexico. I did all the driving! Fun!!

1942

FERRY, NEIL, 3402 Silver Spur Dr., San Angelo, TX 76904. BS '42. Retired as principal process engineer with the Ralph M. Parsons Company in 1983. My wife, Terry, and I enjoyed retirement life in South Georgia, which seemed to be out of the hurricane paths. We are now in the process of moving to a new home in San Angelo, deep in the heart of Texas. Most of Terry's family live in that area, or reasonably close. I always look forward to the alumni news and pictures.

LEY, ROSS H., 6335 W. NW. Hwy. #1211, Dallas, TX 75225. BS '42. Been retired 30 years now. Oldest surviving past president of Dallas Geological Society, moving a little slower since I broke a bone in my foot, but the doctor says seven weeks will fix it. Wife, Doris, a KU art graduate, is still active in her successful interior decoration business.

1944

SWAIN, FREDERICK M., 1625 E. River Terrace, Minneapolis, MN 55414. PhD '44, BA '38. Retired professor of geology. My wife, Frances, passed away April 27, 2007. We were married for 68 years. For more than 40 years we had an island in Rainy Lake, Minn., an arrow-shot from Canada. Frances kept a journal of that time; it is my most valuable possession.

1947

GIMBLET, ERNEST C., 7450 Willowchase Blvd. #2111, Houston, TX 77018. BS '47. Retired from position as director of reservoir geology with Columbia Gas Transmission Corporation.

JEWELL, ELIZABETH TRIPP GILKISON, 2228 Seawall Blvd., #313, Galveston, TX 77550. Non-degree, '47. Retired. I have four children working in all walks of life. My daughter Margaret is a professor of political science at the University of Wisconsin. My son Charles earned his MA and is now working as a medical researcher for the University of Texas Medical Branch, while my other son Bill is a television producer in Texas, and finally, my daughter Mary is a registered geologist and living in Colorado. I mail two or three sheets of humor to 20 family and friends and deliver 70 here at the Edgewater Retirement Community on the Seawall in Galveston.

1948

MEEK, JOHN W., 2304 Grandview Drive, Plano, TX 75075. BS '48. Retired as manager of geophysics Mid-Continent Region with ONYX Exploration Co.

MEEK, MARILYN, 7021 Verde Dr., Kansas City, KS 66109. BS '48. Retired.

WRIGHT, ALICE FITZGERALD, 2088 Golden Circle Dr., Escondido, CA 92026. BS '48. Retired.

1949

FAIRCHILD, PAUL W., 110 Calypso Dr., Lakeway, TX 78734. MS '49, BS '47. Retired petroleum geologist.

LADD, J.B. (BERT), 10-271 Century Woods Dr., Los Angeles, CA, 90067. BS '49. Working as an oil and gas executive. Was one of three to win the Distinguished Engineering Service Award from the School of Engineering in May 2006.

MANN, RAYMOND K., 18535 Melissa Springs Drive, Tomball, TX 77375. BS '49. Still smelling the roses and fantasizing about $60 to $70 per barrel oil.

MUELLER, JAMES N., Condo Tecalai #117, Apdo. #412, San Carlos, N. Guaymas, Sonora, Mexico 85506. BS '49. Since retirement, have been single, living in Mexico full-time the past 21 years. Member of San Carlos Rotary Club. During summer months, enjoy collecting scarce *juvenile* species of exotic, tropical fish – half dollar size or smaller! During business years, traveled *extensively* to Hong Kong, Bangkok, and Sri Lanka.

1950

HARBAUGH, JOHN, 683 Salvatierra St., Stanford, CA 94305. MS '50, BS '48. First some family notes: Granddaughter Danica received a PhD in botany at UC Berkeley in May, and is now headed for a post-doctoral at the Smithsonian. Her sister Erin continues as a foreign service

officer for the State Department, and travels periodically to Asia, most recently to Kazakhstan. Granddaughter Emily spent a year in Chile as a student, and has returned to finish her degree at Humbolt State University. My how they grow!

THALMAN, ALBERT L., 2322 Twin Creek Ln., PO Box 900, Newcastle, OK 73065. BS '50. Retired petroleum geologist.

TYLER, ALBERT N., 10808 Carissa Dr., Dallas, TX 75218. BS '50. I am fully retired now and enjoying these "Golden Years." Both Bobbie and I are in relatively good health and are enjoying our grandkids, traveling and a fairly non-disciplined schedule. Still very much interested in the oil and gas industry and the happenings at KU.

ZINSER, ROBERT W., 20431 Meadowood Dr., Sun City West, AZ 85375. MS '50. Retired manager with Sun Oil Co.

1951

CONROY, RICHARD L. "DICK," 3523 Crow Valley Dr., Missouri City, TX 77459. BS '51. Betty and I still enjoy good health—it's back to Canada for the summer. Houston heat and old age are not the best mix. Four of our five grandchildren are in college with one more to start in two years.

FLOTT, ELGIN L., 1105 Timberlane Dr., Sabetha, KS 66534. BS'51. Still enjoying being retired in small-town Kansas and following the petroleum industry.

GWINN, BILLY W., 4009 NW 61st, Oklahoma City, OK 73112. MS '51. Retired and relaxing in Oklahoma City.

HELMERS, MURRAY E., 7841 La Sobrina Dr., Dallas, TX 75248. BS '51. Continuing to explore, consult and invest in the search for hydrocarbons from New Mexico to West Virginia at age 74 and $70 oil.

JONES, ROBERT L. 22725 N. Dusty Trail Blvd., Sun City West, AZ 85375. BS '51. Worked as director of Sun City West Property Owners and Residents Association, commissioner of Maricopo County Planning and Zoning Community and commissioner of Arizona Oil and Gas Community.

McNEISH, GEORGE R., 1725 Wynd, Winfield, KS 67156. BS '51. George and wife Marilyn developed a not-for-profit retirement community in Winfield that opened in June '89 called Cumbernauld Village. That village in Scotland is where his Grandpa McNeish immigrated. Two McNeish sons, Greg R. McNeish ('78) and George Thomas McNeish ('84), are KU graduates as well as granddaughter, Erica Ansley ('07). Tom McNeish is mayor of Winfield for a term serving on the Winfield City Commission. KU basketball and football are high priorities for George and his family.

1952

BEU, ROBERT D., 30 Hillcrest Dr., Weaverville, NC 28787. MS '52, BS '50. We love North Carolina mountain living. Celebrated 55 years of marriage and 16 years retired this year. Still playing golf and bridge and watching nine grandchildren grow and prosper. Our first great-grandchild is on the way!

BEU, VIRGINIA IRELAND, 30 Hillcrest Dr., Weaverville, NC 28787. BS '52. See Beu, Robert ('52) above.

CARLSON, WILLIAM (BILL) A., 3091 Mill Vista Road, #1502, Highlands Ranch, CO 80129. Called out of docile retirement to return to work as a Geologist at UR-Energy USA, Inc.

HAYNES, EDWARD H., 93 Oakbrush Drive, Pagosa Springs, CO 81147. MS '52, BS '51. Retired from working as the district geologist in the Geothermal-Minerals Department of Chevron Oil Co. Bev and I have six children and 12 grandchildren spread from Alaska, Japan, Massachusetts and Switzerland. Keep in touch with Al Dufford (MS 1953), Ches Perkins (1952), Bob Beu (MS 1952). Trip to France this year, my natal country. What happens when you are a son of a geologist (Professor W.P. Haynes-KU 1916, 1917 and 1919)? All I can say is retirement means no more transfers.

1953

GOODMAN, JEROME, 23510 Creekview Drive, Spring, TX 77389-3706. BS '53. Enjoying my six grandchildren and cashing my oil and gas revenue checks.

NEUMANN, HENRY D., 600 K St. SW, Quincy, WA 98848. BS ’53. Enjoying my retirement here in Quincy, Wash. It’s a second career which I hope never ends. With family and friends and enjoying the good life. Volunteer at the Food Bank, lecturer of St. Pius X Catholic Church, volunteer tour guide discussing geology and operation of the Columbia Basin Irrigation Project in the Quincy area. Retired Air Force as major in September 1986. Past president of the North Central Washington chapter (Wenatchee, WA) of the Military Officer Association of America, served two terms. Past president of chapter 856 (Ephrata, WA) National Association of Retired Federal Employees, one term.

1954

CLARK, JERRY H., 14106 Bloomingdale Manor Drive, Cypress, TX 77429. Retired exploration and production consultant.

DOUGLASS, M. R., 42 Shadow Ln., Destrehan, LA 70047. MS ’54, BS ’53. Helped form, and part owner of, UADA Energy LLC. Having a great time keeping a couple of rigs busy.

HATTIN, DONALD E., 3485 S. Inverness Farm Rd., Bloomington, IN 47401. PhD ’54, MS ’52. Marge and I spent Thanksgiving 2006 in Missoula, Mont., where our oldest grandson, Whitney, is a graduate student in biochemistry. We spent Christmas in Silverthorne and Denver Colo., with son, Ron, and his family and with younger daughter, Donna, who had just started work on a new TV series “It’s Always Sunny in Philadelphia.” We visited Donna in L.A. during April and visited South Carolina Island where I collected some Miocene diorite porphyry to exhibit in the I.U. Departmental “Rock-of-the-Month” display case. Traveled again to Denver Memorial Day. In mid-June we visited Natural Bridge State Park and Daniel Boone National Forest in Kentucky—awesome! From there we drove to Frankford, W.Va., to visit one of Don’s college roommates. Visited New River gorge, historic city of Lewisburg, W.Va., and Greenbrier Hotel in White Sulphur Springs. A real highlight was our visit to Cass, WV, where the state maintains and operates a wonderful steam railroad. Five steam locomotives were fired up! A great facility rivaled in the U.S. only by the Durango and Silverton in Colorado. I continue to work on steam locomotive restoration at the Indiana Railway Museum in French Lick, Ind., where two-century-old hotels and a new casino have pumped enormous life into a famous old spa area. The museum now runs eight regular trains each week. Our daughter Sandy, who works at the local Tibetan Culture Center, is busy preparing for the forthcoming visit of the Dalai Lama. Son, Ron, continues his work as a pain specialist and operating room anesthesiologist in Denver. Our younger grandson, Alan (12) plans a career in ichthyology, specializing in sharks. He will spend a week in July 2007 at the Mote Marine Laboratory in Sarasota and in the reef tract off the Florida Keys. I was very pleased to receive a copy of Dan Merriam’s biography of R.C. Moore. This work is a noteworthy addition to the legend of my mentor. Was pleased this year to hear from Sam Bishop (M.S. 1952) who now lives south of Missoula, MT.

MALONE, DON, 164 S. Fountain, Wichita, KS 67218. BS ’54. Loving the O&G business, but loathing the politics that affect it. Six children – all are doing well, 26 grandkids (8 college grads) – 3 greats. Life is good!

KRUEGER, ROY R., 310 S. Main, Russell, KS 67665. BS ’54. Retired consulting geologist.

1955

DENNY, L. M. (MICK), 3509 Shell, Midland, TX 79707. BS ’55. Still looking for oil. We have 6 grandchildren.

KELLY, JOHN M., 836 South Miller St., Lakewood, CO 80226. MS ’55. Retired senior staff geologist with Chevron, USA.

LITTELL, CHARLES R., 506 Copperstone Box 687, Hugoton, KS 67951. BS ‘55. Retired optometrist.

SMITH, RICHARD D., 125 N. Martet St., Suite 1120, Wichita, KS 67202. BS ’55. President and independent oil producer with Range Oil Co.

STALLARD, ALVIS H., 3101 SW Wanamaker Drive #73, Topeka, KS. BA ’55. Retired from KDOT where worked as an environmental geologist. Still an adjunct professor of geology at Washburn University.

SWITZER, JOHN, W., 4910 W. 69th Terr., Prairie Village, KS 66208. BA ’55. After the degree in geology I continued as a student in sociology/anthropology then to the journalism school. That became the basis for my 34-year career as a news reporter with the *K.C. Star* from which I retired in 1993. I

continued with the Star as a photography lab technician.

UNDERWOOD, PRESCOTT (PETE), 749 Idaho Ave, Sheridan, WY 82801. MS '55, BS '51. Oldest daughter now at Montana State University completing PhD in Geology. Thesis on volcanics of Mount St. Helens.

1956

HOHNER, KENNETH DWAYNE, 1201 W. Thornton Pkwy #390, Denver, CO 80260. BS '56. Married Sherry Edens in Midland, Texas. Passed away December 2000. Have four children. Career took me to New Mexico, Texas, Louisiana, Anchorage, England, Saudi Arabia, Peru and Colorado with Mobil Oil, Amerada Hess and ARAMCO, and Hamilton International Oil Co.

MICKEY, R. J. (Bob), 5215 E 88th St., Tulsa, OK 74137. BS '56. I am retired from petroleum exploration. However, I am active in the Oklahoma State University Extension Service Tulsa County Master Gardner Program, and at the end of '07 I will have completed 10 years in the program. The Tulsa Audubon Society selected my garden along with four other Tulsa County gardens for their annual wildlife habitat-friendly award. The Audubon Society had an open garden weekend in June with around 500 visitors to each of the gardens. The birds, rabbits, squirrels, butterflies and visitors all appeared to enjoy the event. My wife, Susan, has had some medical problems, so we have cut back on travel; however, I still do some fly-fishing for trout in the Ozarks and eastern Oklahoma. I visited KU in early March for an Alumni Association function, and even with a cold wind out of the north, it was good to be back on campus.

RENNER, JOE, 12191 Clipper Drive, Apt. 201, Woodbridge, VA 22192. BA '56. Retired airline pilot for American Airlines.

1957

BROOK, GAIL GORDON. 38 Bosun Terrace, Whitby Porirua City 5024 New Zealand. Retired from working as a petroleum geologist.

1958

BROWN, WILLIAM G., 1208 Sleepy Hollow Rd., Waco, TX 76712. MS '58. Have retired twice, once from Chevron Oil Co. in 1981 where I worked as a consultant geologist and once in 1997 from Baylor University where I was a professor teaching structural geology, regional tectonics, photogeology and physical geology. I have been "really retired" for 10 years. Spend a little time looking at possible oil/gas prospects. I have one article to be published by the Oklahoma Geological Survey entitled "Tectonic Stylolites from the Arbuckle Anticline, Southern Oklahoma."

DICKSON, WILLIAM R., 2609 Lee Anna Drive, West Plains, MO 65775. BA '58. Jean and I are still kicking; just not quite so high! We had a big celebration last year as it was our 50th anniversary. All six children made it along with the grandchildren and great-grandchildren. I still volunteer at our local hospital thrift store—about two hours each morning and then off to the coffee shop to shoot the bull with all my friends.

DUBAR, JULES R., 2700 Thrush Rd., Charlottesville, VA 22901-8815. PhD '58. Our best news is that our small family is now entirely located in Virginia within easy visiting distance. Son Scott is in Richmond at Harding Virginia Commonwealth University, where he majors in art and computer graphics. Our daughter, Nichole, her 2 girls, Selena (14) and Arianna (1) and their father are in Vienna, Va., a suburb of D.C. Still bogged down with creeping arthritis. Yard work is mainly a memory. Can't drive but Susan, my wife, takes care of that.

FARHA, NORMAN S., 12 English Ave., Eastborough, KS 67207. BS '58. I am now a member development consultant with Golbon, a national buying & marketing food service group.

KLAPPER, GILBERT, 1010 Eastwood Rd., Glencoe, IL 60022-1125. MS '58. I retired from 30 years of teaching paleontology at the University of Iowa in 1998. Have continued research on Devonian conodonts since then, and returned to teaching (Historical Geology) as a visiting professor at Northwestern University in the spring quarter of 2007.

MOYLAND, JOHN, 5306 W. 57th St., Shawnee Mission, KS 66205. BS '58. Retired from the Kansas City District of the Corps of Engineers in 1991. Worked for Woodward-Clyde Consultants/URS until 2001. Independent consulting geologist since that time. I was selected as the 2007 Johns Distinguished Lecturer by the Engineering Geology Division of the GSA and the Association of Environmental and Engineering Geologists. This has kept me busy this year. Annette and I are proud

of our five children and 10 grandchildren. Three of our five are KU graduates and all five have made us very proud.

1959

NICKELL, DON D., 320 Bob White Run, Salisbury, NC 28147. BS '59. Retired president of Mid-Atlantic Explosives, Inc.

REESE, DALE O., 6816 Roundrock, Dallas, TX 75248. MS '59. Petroleum geologist. Continue petroleum business. Returned from great Tanzania trip with Dallas geologists.

WOOD, ROGER L., 7205 Jupiter Trail NW, Silverdale, WA 98383. BS '57, MS '59. In late June, Lou Ann and I were honored with the presence of family and many longtime friends at our 50th wedding anniversary celebration. We continue to enjoy an active retirement by working with several non-profit organizations including The Bremerton Symphony & League, Kitsap Historical Society, Martha & Mary Health & Children's Services. Also, our four acres of gardens, flowers, trees and ferns keep us busy. The always cool temperatures and spectacular westward view across the Hood Canal to the Olympic Mts. reminds us daily how fortunate we are to live in the Northwest.

1960

COLEMAN, GEORGE, 409 Main St., Waterville, ME 04901. MA '60. Instructor in geology at Colby College, 1963-65. Asst. in Admissions, Fall '65; Asst. registrar Spring '66. Registrar 1966 until retirement June 2006 – 40 years! Completely hand maintained "system" at beginning, though many changes, culminating in Web registration beginning Fall '99.

DODSON (ANDERSON), BARBARA J., 1306 N. Northshore Blvd., Wichita, KS 67212. BS '60. Retirement continues to be enjoyable and active. Two great-grandchildren, 13 grandchildren. This summer motorcycling to Nova Scotia in Canada.

PETERSEN, CLARK H., 14421 SE 183rd St., Renton, WA 98058. BS '60. Occupation: Retired in 2004 after being director of Renton Public Library for 34 years. Consulted for junior Canadian mining company exploring in Nevada until takeover by mid-tier gold explorer in 2007. Involved in building portfolio of exploration and development stage Canadian mining stocks for associates and myself. Building on my mineral collection and meeting geologists at annual Tucson Gem & Mineral Show in February. Mineralogists with mining companies have and are still supplying collecting world with legacy specimens. Acquired a roasted gold specimen in volcanic rock from Cripple Creek, Colo. I am third owner. Remember when we panned for gold in the stream at geology field camp? Those fluorite, galena, calcite, dolomite, sphalerite, brookite and beryl specimens we collected on KU geology trips are now much more valuable. Anyone interested in trading for a 17-pound native copper specimen from Keweenaw, Mich. Traveling, river rafting and geological excursion down Snake River in Hells Canyon. More trips planned on various rivers of the west. Contact me for information, or an outing if you are visiting Washington state.

Guesthouse available on our acre. Wife Linda since 1967; daughter Laura (69), son Scott (72) all in area. Edited revised edition of book *Renton - From Coal to Jets* in 2006 and received local award. Researched literature and maps of coal mining in King County, Wash.

PROCTER, RICHARD M., 3307 Capithorne Rd. NW, Calgary AB Canada, T2L0L2. PhD '60. Following my career at the Geological Survey of Canada, I consulted internationally for 15 years and was a senior advisor to Canadian Potential Gas Committee. Fully retired at the end of 2006 with wife, Lorraine, of 35 years.

ROSS, DAVID A., 53 Green Pond Rd., E. Falmouth, MA 02536. MS '60. Retirement is good. Fishing book *The Fisherman's Ocean* went into 4th printing.

1961

ADAMS, LARRY W., 12080 E. Nunn Rd., Athol, ID 83801. MS '61, BS '60. Enjoying retirement (officially in September 2006) of "Sage Creek Ranch"— 22 acres approximately 20 miles north of Coeur D'Alene, Idaho. Most of our family is here—two daughters and six grandkids. Another daughter and her husband, plus four additional grandkids live in Coeur D'Alene. Enjoying retired life as an amateur "rider" with five horses of ours and six boarded horses. Still occasionally consult with my former company.

ANGINO, ERNEST E., 4605 Grove Dr., Lawrence, KS 66049-3777. PhD '61, MS '58. New grandson arrived July 19, 2007. Still active in community affairs.

Recently joined Lawrence-Douglas County Economic Development Committee and board of Lawrence Community Theatre. Activity keeps me out of trouble. Writing regular column (quarterly) of Meter Stamp Society Bulletin – keeps my hand in area of postal history, long-time hobby of mine. Sadly, lost my brother to lung cancer in April – warning to others who smoke! Still interested in railroad history and activities. Quiet member of Midland Historical Rail road of Baldwin City, Kan. Incidentally, rail line now goes from Baldwin to Ottawa, just like "old" times. Love to hear from any old friends, students or protagonists out there.

BEBOUT, DON, 800 W. 38th St., Apt. 11103, Austin, TX 78705. PhD '61. Retired geologist, now self-employed potter.

FAY, ROBERT O., 4303 Oxford Way, Norman, OK 73072. PhD '61. Married Helen Scott in 1966. She has one son, Warren Pelton. He has a daughter, Tiffany, and a son, Phillip. Tiffany has three children, Breanna, Caitlyn and Alexis. Phillip has two daughters, Cheyenne and Cassady. I am working full-time at OU. I began in 1956, having finished my PhD dissertation in Oklahoma, finishing in 1961. I worked under Dr. Moore on *The Treatise*. I was in charge of photography for *The Treatise* from 1949-1956. I also wrote one volume on Blastoids for *The Treatise*. I have published about 140 articles. I was a field geologist. I worked on red beds mostl,y and I compiled the hydrologic maps for Oklahoma. I am now working on a bibliography of Oklahoma Survey members.

FISHER, WILLIAM L., 8705 Ridgehill Dr., Austin, TX 78759. PhD '61, MS '58. I continue as professor of geological sciences at the Jackson School of Geosciences, teaching, writing and working with several graduate students. This is the first year at the University of Texas since 1968 that I have been without any administrative responsibilities. Recent years have been consumed with establishing the Jackson School as an independent college and securing its endowment. That was an exciting involvement. Being a part of the Geology Associates helps keep me up to date on KU, and I appreciate the fine work going on there under the very able leadership of Bob Goldstein.

HATCHER, DAVID A., 1422 Lofty Maple Terr., Kingwood, TX 77345. MS '61. Blessed by three grown-up children and six grandchildren ages 8-22. In 2007 Sue and I celebrated 50 years of marriage; I celebrated 70 years of life and a job with a new company (Royalty Exploration) as an explorationist. Praise God!!

KELLY, T. E. (Tim), PO Box 4246, Pagosa Springs, CO 81147. MS '61. Closed the doors to my consulting firm in 2004, but continue to do a little work when it doesn't interfere with play. My wife, Judy, and I moved from the Albuquerque, N.M. area to our mountain home in Colorado on the slope of the Continental Divide. We both enjoy trout fishing, skiing and golf. We also do a lot of traveling with children in New Mexico, Texas, Minnesota, Florida and Belgium.

LINEBACK, JERRY A., PO Box 467, Grantham, NH 03753-0467. MS '61, BS '60.

SIEGEL, FREDERIC R., 4353 Yuma St. NW, Washington, DC 20016. MS '58, PhD '61. Seventy-five and still counting. I hope that my contemporaries at KU Geology 1958-1961 are doing the same. My family (daughters, grandchildren and sons-in-law) is doing well, one in Manhattan (NY that is) and the other in Atlanta. So, Felisa and I take the train north and the plane south on a regular basis. My older granddaughter called me in April to tell me she had passed her driving test and was now officially able to drive my car. "Oh no," I thought. "What's next?" The youngest grandchild is 2 years old and we see him three times a week through SKYPE and video cam on Internet. Nice! I am writing a book for Springer entitled *Demands of Expanding Populations and Economic Development: Clean Air, Safe Water, Fertile Soils*. I am scheduled to send the manuscript to the editor by Dec. 31, 2007. Hope I can make it! The department is doing well I know, and with a bit of luck and planning, I expect to visit Lawrence this year or next. How about those RED SOX!?

1962

FISHBURN, MAURICE D., 9800 Rosewalk St., Bakersfield, CA 93311. MS '62, BS '59. Still enjoy retirement. How does anyone have time to work? Look forward to our summers in Coeur D'Alene, Idaho. Spend lots of time with family, grandchildren and traveling.

GARBER, MURRAY., 2133 Pine Knoll Drive #10 Walnut Creek, CA 94595. MS '62. Retired from working as a senior hydrologist for U.S. Interior Department in the Office of Surface Mining. Now I

volunteer at San Francisco Exploratorium.

KAHLE, CHARLES F., 25709 Willowbend Rd., Perrysburg, OH 43551. PhD '62. I retired from Bowling Green State University. (Ohio) in 2000 and have not looked back. I have made a lot of new friends at a gym I go to every day. Early Nov. 2006, my wife, Rosemary, was very ill. She is doing OK. Nov. 20, 2006, I had a heart attack. Four stints but no damage. I am doing OK. I am continuing to do research and to publish. Doing quite a bit of geomicrobiology. I am heavily involved with going to hospitals along with my therapy dog, Ace of Hearts (a white collie with some sable markings), and seeing children at libraries. I love it.

KEIM, JACK D., 3804 Stockade Ct., Lawrence, KS 66049-2144. BS '62. Starting 5th year of retirement from P.I at KU and staying busy enjoying *life in general*: family (granddaughter, Lorianne, 22 mo.), sunrises and sunsets, home grown tomatoes and home made ice cream, recreation and travel. Happy trails!

LaMONTAGNE, KIRSTEN (KISE) KRUEGER, 1488 S. Washington St., Denver, CO 80210. BS '62. I am happily settled in Denver after 36 years in the foothills. Being an ambassador at the Denver Art Museum gives me my "art fix" and working part-time at a wonderful art/craft shop in Cherry Creek keeps me "off the streets." Mineralogy has come in handy when I am peddling the jewelry—being able to identify citrine from chalcedony from jasper. My family is in Denver so I get to play "Grammie Kise" to the little ones and with twins arriving in a couple of months, I'm sure my services will be in high demand. I continue to travel with India being the latest "favorite."

PRAGER, GERALD, 3046 Taylor Ave., Cincinnati, OH 45220. BS '62. Still working as an attorney with an emphasis on international energy law at Manley Burke LPA.

WILLIAMS, JR., ROBERT L., PO Box 48548, Wichita, KS 67201. BA '62. Consulting geologist.

1963

DUANE, DAVID B., 18 Pier Pointe, River Bend, NC 28562. PhD '63, MS '59. Retirement years continue to be good. We are fortunate to still be able to divide time between our summer season lakeside cottage in New Hampshire and our canal-side condo home in North Carolina as well. I am also fortunate to be able to continue participation in community activities. Resigned, after serving five years, from the Environment and Waterways Advisory Board to our town to accept appointment to the state Habitat and Water Quality Board. In another direction, I serve on an ecumenical board directing the Rothermal Education Foundation. We organize two free public lectures a year by persons of national recognition to further the understanding of a "Supreme Being" in the context of advances in sciences and changing societal codes. On a lighter side, I spend time with model railroading. Our club recently moved to new large quarters necessitating building a brand new "railroad"—the second time in five years. Nancy and I are also fortunate to be near our two youngest grandchildren and this year, in good health, we celebrate our 50th anniversary. Receipt of the G-Hawker and the work it represents is greatly appreciated.

OWEN, DON, 2610 Evalon Ave., Beaumont, TX 77702-1236. PhD '63, MS '59. I continue to teach and do research at Lamar University, teaching the geology field camp this summer for the first time in many years. I moved the camp from Big Bend, Texas, to my research area in NM. We stayed at the dorms at UNM with some camping. I noticed that students these days walk and climb faster than they used to do. I guess that is because the ridges are steeper now; it must be global steepening! I continue to publish quite a few papers, mainly on the San Juan Basin Jurassic-Cretaceous subsurface/surface stratigraphy, mostly with my colleague Charles Head of ConocoPhillips in Farmington. I was just notified that the Geoscience Information Society selected *Geology of the Chama Basin*, of which I was a co-editor for NMGS as Best Guidebook of the Year for 2005-2006. The award to be presented at the Denver GSA. My son, Donny, who graduated from high school this May, made the final selection as a National Merit Scholar and will be enrolling at UT, Austin this August as an electrical/computer engineering major. He competed in the national debate tournament in Wichita this June after winning his competition for the south half of Texas. He continues to work with me in the field and co-author some papers when he has time. I am writing this note on the fast new computer he built for me while I was at field camp.

REAMS, MAX W., 6 Castle Coombe Dr., Bourbonnais, IL 60914. MS ’63, BS ’61. Celebrating 40 years of teaching geology at Olivet Nazarene University. The university is 100 years old this same year! We’ve been adding new faculty and new programs—lots of fun. I’m on sabbatical this fall.

1965

SMEDLEY, GARY, 3435 Cedar Heights Dr., Colorado Springs, CO 80904. MS ’65, BS ’63. Retired from Chevron Corp.

1966

BUCHWALD, EDWARD, 13192 Cannon City Blvd., Northfield, MN 55057. PhD ’66. Cynnie, and I continue to volunteer with the National Park Service, helping to create science-based educational programs for children in the vicinity of Agate Fossil Beds National Monument in westernmost Nebraska. She volunteers with the Northfield Hospital. I have also been very busy helping to create a charter school that will concentrate on science, technology, engineering and mathematics (STEM is the buzz word). However, our version emphasizes field-based sciences. In October I will start my 40th year as a scoutmaster. At Christmas time my troop will fledge our 32nd, 33rd, and 34th Eagle Scouts! As you see, life is sweet.

FRANKS, PAUL C., 2720 S. Cincinnati, Tulsa, OK 74114. PhD ’66, MS ’56. Had a fine trip to Scotland last summer. Among other things visited Siccar Point (Hutton’s locale for angular unconformities), Nairn Granite and Lewisian Gneiss on Harris and Lewis in the Hebrides.

SAUERACKER, PAUL R., 1728 Sycamore Ave., Merrick, NY 11566. MS ’66. Retired on May 1, 2007, after 36 years with Minerals Technologies Inc., a New York Stock Exchange listed company. Served as chairman of the board, president and CEO for the past 6½ years. Sales exceeded $1 billion in 2006. Looking forward to spending more time with my wife, Nancy, my three children and five grandsons.

1967

CHURCH, STANLEY E., 7316 S. Settlers Drive, Morrison, CO 80465. MS ’67, BS ’65. My wife and I will celebrate 41 years of marriage in August. We have five grandkids, two in KC, three here in Denver. We recently purchased our retirement home in Florida. I plan to retire in January 2009 unless the USGS makes such a good offer that I can’t refuse (Ha!). I look forward to talking with old college buddies at the KU party at GSA in Denver this fall. I always enjoy reading updates of friend’s lives in the *G-Hawker*.

FARMER, KEN., P.O. Box 2895, Casper, WY 82602. BS ’67. Working as a petroleum geologist.

HANSEN, HANS R., 2813 Haynes, Midland, TX 79705. BS ’54 and ’55, Law ’67. Senior retired consultant.

SCOTT, ROBERT W., RR 3 Box 103-3, Cleveland, OK 74026. PhD ’67. A revision of “Lower Cretaceous Oysters & Other Bivalves from Texas, Arizona & Sonora” was recently published. Work continues on cretaceous marine red beds in collaboration with an international group. I teach at Tulsa University, one course, “History of the Biosphere.” Carole and I await our eighth grandchild.

1968

HIRD, CARROLL, 1919 Boulder Ridge Drive, Conroe, TX 77304. BA ’66 and MBA ’68. Employee of Cimarex Energy Co. of Colorado. I’m officed in Houston and continue to explore the onshore Texas Gulf Coast. I’m having a blast. This company puts its money into the drill bits. I’ve been married to one of Dr. Dellwig’s gorgeous secretaries (formerly Kaye Anderson) for 39 years! We have three kids and four and a half grandkids. Kaye’s retired, and I’ll probably work another three years or so. I’m having too much fun to quit just yet. The commute to downtown Houston is lousy, but I’m used to it.

SPENCER, RANDALL S., 2302 Sandfiddler Rd., Corolla, NC 27927. PhD ’68, MS ’62. Linda and I continue to enjoy our retirement in a small, off-road beach community where we serve as volunteer fire fighters. We recently passed our exams and are now first responders also.

1969

GOGEL, TONY, 9904 Cherokee Ln., Leawood, KS 66206. MS ’69, BS ’68. Celeste (BS ’68) and I are enjoying retirement immensely, spending lots of time with grandkids and wintering in Phoenix. Life is good.

1970

POLLARD, WILLIAM D. (BILL), 411 Hazelwood Dr., Fort Worth, TX 76107. MS ’70. I still enjoy oil & gas exploration and management of a small staff of great people. My wife, Kathryn (Wohlford), also a KU grad, and I have two married daughters and

two wonderful grandkids. One family is in Bogota, Columbia, and the other in Western Massachusetts. We enjoy traveling to see them.

1971

BRADY, LAWRENCE L., 913 West 28th Street, Lawrence, KS 66046. PhD '71, MS '67. I recently retired from the Kansas Geological Survey (June 2, 2007), but I am still working part-time on a few projects. At the AAPG meeting in Long Beach, Calif. I received honorary membership in the Energy Minerals Division (EMD) of AAPG.

ELLIOTT, MARY ANN, 2406 Camarie, Midland, TX 79705. BA '71. See Elliott, Robert ('73) below.

1972

LAYMAN, ARCH (Chip), 2319 W. 18th St., Wilmington, DE 19806. BS '72. Retired in 1999 after 26 years in the US Air Force Communications, Computers and Information. Taught high school Air Force Junior ROTC in Rock Hill, S.C. for six years. High school is a tough environment. I found the problem with the U.S. school systems is the parents not requiring their children to study and perform, too permissive. Have spent the last year constantly traveling to scratch the itch. Third career to start anon.

1973

ELLIOTT, ROBERT G. (BOB), 2406 Camarie, Midland, TX 79705. MS '73. Bicycled across Kansas (500 miles) with 850 other cyclists. Enjoyed looking at outcrops at 12 mph, especially liked the Post Rock country. Looking forward to the next field camp reunion!

KAUFMAN, JOHN M., 20203 E. Maplewood Place, Centennial, CO 80016. BA '73. John and Nancy's daughter, Jennifer (KU Biology 2002) is a third-year medical student at KU in Kansas City. Their son, Christopher (KU Journalism 2005), is a first-year law student at KU in Lawrence. Nancy is a customer service agent for United Airline. John owns two consulting firms (one in Colorado and one in Wyoming). Recently, he joined SAIC in Lakewood, Colo., as a senior water resource engineer program manager. Much of his work involves water rights, water supply and coalbed methane production. He is expert in well design and hydraulics, drilling, engineering, and ground water production. The Wyoming Engineering Society recently awarded him honorable mention in the engineering category for the Presidential Project Award for 2006 for the Sleepy Hollow Well No. 6 project.

1974

HENRY, RICHARD K., 2721 Old Hastings Rd., Limerick, Ontario, CANADA, K0L 1P0. BS '74. Soon I will be out of California completely and with Lawrence Livermore Laboratory headquarters near Limerick, Ontario. Part-time I'm in Brazil on the Jequitinhonha River north of Diamantina in Minas Gerais State. Both places are great for the amateur mineralogist. Rockhound friends from KU should come to Limerick for a visit.

LEWIS, RICHARD D., BS '74. Trying to re-coop my tuition fees for Professor Merrill's Sedimentology class in 1974. Enjoying rowing, sailing and a bit of independent research.

SPENCER, MARY ALICE SOULE, 1001 Senora Ave., Billings, MT 59105. MS '74. I am continuing as a docent at the local art museum, especially working with the art classes. My husband keeps busy with a volunteer organization that works with the greenway parks in the Billings area. We have discovered the joy of train travel and have been visiting family via Amtrak. It gives you a much different view of the country that you don't get on the freeway or planes.

1975

TRAVERS, JACK, 22483 Franklin, Spring Hill, KS 66083. MS '75, BS '57. Retired environmental engineer for Phillips Petroleum Co.

VanDYKE, CYNTHIA A., 526 Pontius Rd., Lower Salem, OH 45745. BS '75. Oil and gas inspector for the state of Ohio.

1976

COCHRAN, MICHAEL H., 1600 SE 37th Terr., Topeka, KS 66609. BS '76. The Kansas Department of Health & Environment (KDHE) Geology Section administers the Underground Injection Control (IUC), Underground Hydrocarbon Storage in Salt Caverns and Water Well Contractors Licensing, Water Well Construction and Plugging regulatory programs. I have worked as an environmental geologist for KDHE for 30 years and I am a Kansas licensed geologist. Currently serve as one of six state members of EPA's National UIC Technical Workgroup. My wife, Susan, is the soft lines manager for Topeka, Kan., Sears store. Susan has worked for Sears for 35 years.

DROPEK, KEN, 14226 Carolcrest, Houston, TX 77079. BS '76. I have started a new venture called Flick Investment Group, which raises funds to underwrite the production of feature-length movies. Our first movie will be shot in January of '08 with an animated film to follow.

KENDER, THOMAS C., 1403 12th Avenue, Rockford, IL 61104-5034. BS '76.

WALSH, FRED, 11406 Gatesville Dr., Frisco, TX 75035. Non-degree. I joined Denbury last year where I am working CO_2 tertiary floods in SW Mississippi fields. In one field, I am involved in a partnership with DOE, Texas Bureau of Economic Geology and Gulf Coast Carbon Center to evaluate carbon sequestration in petroleum reservoirs and brine aquifers. On a personal note, our two daughters are adults and the oldest was married last fall. Both daughters and the new son-in-law are pursuing their master's degrees at Southwestern Baptist Theological Seminary in Ft. Worth, which is just down the toll way from our new home in Frisco.

1977

BEAUMONT, EDWARD A (TED), 1511 E. 36th Pl., Tulsa, OK 74105. MS '77. Secretary of the American Association of Petroleum Geologists. Was previously working as an independent geologist in Tulsa, Okla.

BUDAI, JOYCE M., 11608 SW Springwood Dr., Tigard, OR 97223-3359. BA '77. I am married to Eric Essene, a professor of geology at the University of Michigan. We have two sons, Adam (19) and Zach (17). Adam will be a sophomore at Oberlin College this fall. Zach is a junior in high school. I work with 12 liberal arts colleges, supporting campus sustainability efforts and education abroad. My training in the geological sciences has always served me well.

KENNEDY, DAN J., 3708 Windover Drive, Edmond, OK 73013. BS '77. Currently geological supervisor for Devon's Permian Texas/San Juan Team.

RASMUSSEN, DONALD L., 1842 Stratford Ln., Longmont, CO 80503. PhD '77. Currently active in research and exploration in Paradox Basin of Four Corners region.

1978

BIDLEMAN, W. BRYCE, 10210 N. Meridian, Valley Center, KS 67147. BS '78. Working as a petroleum geologist for Trans Pacific Oil Corporation.

KENNEDY (EGGER), NANCY L. 3708 Windover Drive, Edmond, OK 73013. BS '78. Stormwater engineering manager for the city of Edmond.

SMITH, JERRY, 550 W. Central, #1006, Wichita, KS 67203. BS '78. Independent consulting petroleum geologist.

1979

HAACK, RICHARD, 653 Elizabeth Ct., Grand Junction, CO 81503. MS '79. Retired from Chevron.

ULABY, SAAD, 3423 Creekstone Drive, Sugar Land, TX 77479. BA '76, BS '79. Vice president of global accounts at Schlumberger.

WALLACE, RON, 3650 Garrards Crossing, Roswell, GA 30075. MS '79. I am currently national treasurer for 2007-2008 for the American Institute of Professional Geologists. Attended my first GSA conference in over 25 years at the southeastern section and gave a talk and co-chaired a section. I still work in the underground storage tank program. Our releases are going down. Holly and I still take two of our dogs for visits to senior centers, assisted living facilities and children's hospitals.

1980

PECK, JOHN S., 219 Chateau Dr., New Bern, NC 28560. BS '80. Still living in N.C. Married and have three boys. Not currently working in field of geology, but wife insists I have rocks in my head.

PERRY, MIKE, 9105 East Wesley Ave., Denver, CO 80231. MS '80, BS '78. Still very active in Rocky Mtn. oil and gas. Lots of WY CBM wells dewatering, lots of lease hold in ND & MT Bakker play. Sandy is very busy working in remote sensing for various gold companies. Our oldest, Jake, is 26 and living in Brooklyn, working as an editor for Penguin Books. Our youngest, Nate, attended Washburn last year as a freshman.

PERRY, SANDRA, 9105 East Wesley Ave., Denver, CO 80231. MS '80, BS '78. See Perry, Mike ('80) above.

SPENCER, TIM, 119 E. Buckthorn Rd., Derby, KS 67037. BS '80. Trying to keep up with all the activities with our two oldest boys at KU and our daughter at home in high school. We are looking forward to a fall full of sports, parties and seeing old

friends at the KU football games. I am still consulting at Vess Oil Corp. in the Mid-Continent, Gulf Coast and East Texas. My wife is still enjoying her job with the Derby school system.

WILLARD, JANE M., 1950 Stanford Ave., St. Paul, MN 55105. MS '80. President/principal geologist for EnPro Assessment Corp. I am president of my Rotary Club this year (St. Paul Sunrise), and I am a director on the AIPG Foundation Board.

1981

COLSON, RUSS, 12158 230th Street North, Hawley, MN 56549. BS '81. My two children have graduated high school and are pursuing college degrees in biology and physics. I remain active in church and recently took a four-day bike trip with my family and friends.

FERGUSON, CHARLES, 2541 W. 36th St., Tucson, AZ 85713. BS '81. While mapping for the AZGS in April, I found the source of the Peach Springs Tuff near Oatman, Ariz. Finished a chapter on the geology of the Red Desert, Wyo., for Annie Proulx's new book which should come out this winter. In June 2007, I taught field geology at the Les Huston Field Camp in Cañon City, Colo. I hired on because I wanted to reproduce the maps I made at the 1980 KU camp that Dr. Walton and Dr. Kaesler destroyed. Take that boys. Some of the 2007 KU field camp alumni may have noticed that when they passed through the water gap at the Mixing Bowl, there was a chorus of "Rock Chalk Jayhawk, KU" drifting down from a ledge occupied, inexplicably, by OSU-OU students and teachers. This was because I had enlisted the help of the KU students the day before when one of OSU's TA's got lost during a make-up exercise at Blue Ridge. Thanks again Jesse, Troy, Andrew and James.

FILKINS, DAVID, 4955 Pintail Ct., Frederick, MD 21703. BS '81. We have two daughters. Elizabeth graduated from Tuscarora High School in June 2007 and will be a freshman at KU in August (second generation Jayhawk) and plans to major in early elementary education. Gwen is a 9th grader at Tuscarora High School. David is active with a Disaster Action Team with the local Red Cross. Denise is active with the local Girl Scout council and teaches Sunday school. That's all for now!

FILKINS, DENISE, 4955 Pintail Ct., Frederick, MD 21703. BS '81. See David Filkins (above).

HOGAN, PATRICK J., 70 Doubloon Dr., Slidell, LA 70461. BS '81. Lost most everything to Hurricane Katrina, still in recovery mode.

MORRIS, KEVIN G., 6009 E. 84th St., Tulsa, OK 74137. BS '81. V.P. Mid-Continent Division for Samson.

1982

COPELAND, PETER, BS '82. Was awarded the University of Houston's Teaching Excellence Award in May for teaching in the core curriculum. "I thought Physical Geology was going to be very tedious, but it was one of the most interesting classes I have ever taken," Nohemi Garcia, a former student in her letter of support for the associate professor of geosciences. The award provides $5,000 and a trophy.

ENCISO, "GONZ" GONZALO, 14911 Woodthorpe Ln., Houston, TX 77079. MS '82, BS '79. Gonz moved from vice president, the Exploration Portfolio, and chief geoscientist at Hydro Gulf of Mexico LLC, in Houston to senior associate at Rose & Associates in Houston.

LINK, MARTY, 1210 Peach St., Lincoln, NE 68502. BA '82. Rob left for training at Ft. Riley, Kan., in late January 2007, and left for Iraq in mid April. He has already had several assignments, one of which was working to keep generators across Iraq running. He hears or sees missiles coming into the Green Zone (where his office is) nearly every day. It is very, very hot, but his food is excellent. Marty holds down the fort, so to speak, and still works for the Nebraska Dept. of Environmental Quality as the associate director of the Water Quality Division. Oldest daughter Katie had grandchild #1 (Abraham) this May and gets married in August. Daughter Molly will be a sophomore in civil engineering at South Dakota School of Mines & Technology in Rapid City and Zoe starts high school at Lincoln Southwest High School this fall. We look forward to Rob's return in the summer of 2008.

MEDLOCK, PATRICK, 1507 W. 30th, Austin, TX 78703. BS '82. Senior geologist for Brigham Exploration.

TOBIN, ROB, CMATT, MNSTC-I, Phoenix Base, APO AE 09348. MS '82. See Marty Link, above.

YARLOT, MARK, 24240 Serra Pl., Tehachapi, CA 93561. MS '82. I am married to Janet Yarlot, who is originally from Quinter, Kan. She obtained her BS in nursing from Marymount College in Salina, Kan. We have three boys: Matthew (15), Michael (12), and Marty (10).

1983

BLANK, RANDALL, 2221 Lupine Ct., Lodi, CA 95242. BS '83. I am on the Board of Directors of World of Wonders, a hands-on science museum, opening in 2008.

KOPASKA-MERKEL, DAVID C., 1300 Kicker Rd., Tuscaloosa, AL 35404. PhD '83. Professionally, I am still studying the petrography and sedimentology of hydrocarbon bearing sandstones, but have moved from the Jurassic to the Miocene and Cretaceous. I continue to run the survey's unofficial educational outreach program, which now takes in $6,000 or $7,000 per year through our charity golf tournament and disburses that money to educators and educational institutions throughout the state. I am working on a website that would serve as a clearinghouse for disability-related information for the state of Alabama. At this point, I am making sure no such site already exists and collecting information about what's out there. The next step is to find someone to design and maintain the website and the money to host it. I won the Rhysling Award for best long science fiction poem last year ("The Tin Men," co-written with Kendall Evans) and am blogging short-short fiction at www.dailycabal.com. My eldest child is studying sociology in Swedish in Finland; the youngest is selling hand-painted wooden chairs.

1984

BENNETT, DEB, P.O. Box 411, Livingston, CA 95334. PhD '84, MS '77. As per last communication, I continue to run Equine Studies Institute. We offer an eclectic variety of classes and clinics on science topics worldwide. Currently I am most involved in teaching carcass dissection, primarily equine, and most of clientele are people who want to become animal health-care professionals in the para-veterinary disciplines, such as farriery, sports massage, or equine dentistry. The institute is now also heavily involved in publishing. I continue as I have since 1986 to be on the Editorial Board of "Equus Magazine." I continue to crank out the equivalent of about one book per year. Every year I spend about six weeks to two months on a teaching circuit that takes me to Australia and New Zealand, and sometimes to other countries as well. Every September for a month, I go to Northumbria in the UK to volunteer my service at Vindolanda. This got started because I visited their museum in 2002 and saw that they had some Roman horse skulls. That did it! Through volunteering, I am now responsible for the entire bone collection at this site. This past January, I spent a week back home at KU as the guest of Dr. Bob Timm at the Dyche Museum. With help from Larry Martin, A. Townsend Peterson and Mark Robbins, we got the entire bird-bone collection from Vindolanda straightened out, and thanks to the hard work of my English sponsor and colleague Robin Birley and his family, this publication has already appeared. Next year, Bob and I will be writing up the Vindolanda dogs, which will certainly inveigle us in the whole controversy over when and how dogs became domesticated. This is a pleasure to me for it echoes the long-ago days when I had the privilege of researching the same question with regard to horses, under the guidance of Robert S. Hoffmann. That work, which was finally published by the American Society of Mammalogists in 1999, is online as "The Mammalian Species Paper" at our Institute Knowledge Base.

COX, EVELYN (LYNN) BERNEY, 1574 Sycamore Meadows Dr., Ballwin, MO 63021. BS '84. Seventh grade earth science teacher for Rockwood School District.

HAZARD, STUART, 3011 SW 97th Street, Wakarusa, KS 66546. BS '84. Working as a field rep/ geologist for Bartlett and West.

HOLDERMAN, DEAN, 225 Cranwood Drive, Key Biscayne, FL 33149. BA '82, MBA '84. I really enjoy living in South Florida with my wife Meg (Roeder, BS Business '84) and daughters Callie (17) and Grace (14). I like the challenge of business building and remember fondly my classmates and professors in the Geology Department.

HOPE, ROSEMARY, 4500 W. 53rd Terr., Roeland Park, KS 66205. BA '84. After 16 years as a science writer at the University of Kansas Medical Center I am happily self-employed as a free-lance biomedical writer and editor. Still collecting rocks; still not so good at identifying them!

McCLAIN, STEVE E., 391 SW 10th Street, P.O. Box 1006, Pratt, KS 67124. BS '84. Married to Nancy 20 years. We have three children, Austin, 13; Lauren, 11; and Julieann, 7. Sterling Drilling has grown to four rigs running in south-central and southwest Kansas.

PREMO, WAYNE, 2342 Braum Court, Golden, CO 80401. MS '84. Wayne employed by U.S. Geological Survey for 24 years now as an isotope geochemist/geologist working on various projects including U-Pb and Sm-Nd isotopes of ancient lunar crystal rocks; meteorites and mantle-derived terrestrial rocks. Also isotope characterization of various ore deposits worldwide; U-Pb zircon geochronology of various rocks worldwide, but lately the Precambrian basement of central Colorado. Also, isotope (Pb-Sr-Nd) characterization of specific intervals through the Paleozoic and early Mesozoic using other fossil material as indicators of changing seawater characteristics related to global climatic fluctuations. Valerie is a Montessori schoolteacher and we have three children (adults now) and two grandchildren.

SHEEHAN, ANNE, 6856 Twin Lakes Rd., Boulder, CO 80301. BS '84. Working as a geophysics professor at the University of Colorado at Boulder. I am Incorporated Research Institutions for Seismology/ Seismology Society of America (IRIS/SSA) Distinguished Lecturer of 2007. I was promoted to full professor at the University in 2006. In 2006, I published the undergraduate geophysics textbook: Burger, Sheehan, and Jones, *Introduction to Applied Geophysics: Exploring the Shallow Subsurface*.

STRONG, SCOTT M., 614 Sunrise Ave., Pratt, KS 67124. BS '84. Working as president of Strong's Insurance Inc.

1986

ANIELLO, PETE, 1230 W. Cypress Ave., Redlands, CA 92373. BS '86. Recently completed master's degree in geographic information systems (GIS). Recently moved to a new house (still in Redlands, Calif.). Ran a marathon in July. It's been a busy year so far! Looking forward to vacation.

KILLEN, DAVID, 11611 Melody Garden, Cypress, TX 77429. MS '86, BS '83. Senior project manager/environmental consultant with Malcolm Pirnie, Inc.

PHILLIPS, AARON R., 916 E. 27th St., Baxter Springs, KS 66713. BS '86. Senior tech. specialist with Tamko Roofing Products.

ROARK, CLAY, PO Box 2939, Wichita, KS 67201. MS '86, BS '84. Vice president of exploration and development, Koch Exploration – Canada Corp.

SECREST, JOHN A., 9350 Arlington Ridge Way, Powell, TN 37849. BS '86. Owner of the real estate developing company, Arlington Ridge Development.

1987

BLACK, BRIAN ALLEN, 3050 Chelsea Ln., Acworth, GA 30102. BS '87. Oi! Not much to report this go-round. We just got back from Wales (the Lleyn Peninsula) where 70 percent of the natives speak Welsh as their primary language, but taking one look at me they immediately switched to English… Saw a lot of granite and slate on the Festiniogg steam railway trip, limestone at Caernarfon Castle and a few stone age circles hither and yon, tried to pronounce names like Pwllheli, Porthmadog and Llanfaelrhys without causing too much confusion amongst the locals and flew over Greenland with its glaciers and icebergs in the bays on

the way back to muggy Atlanta. After three weeks w/o any phones, computers, or Internet, our welcome back into the U.S. was to walk up to the Immigration counter in the Atlanta airport, only to have the Homeland Security computers shut down for an hour (with 1,000+ very weary travelers from the world over waiting for them to come back up over an hour later!). Everyone's doing well. Teeth go and come, training wheels come off (not related to the former), knees get patched up, sunrise, sunset (take a watch of Fiddler on the Roof). Still thinking about moving to Maine, gets a little more likely each year. Ah well. Hope all is well with everyone out there!

FOSTER, DAVID W., 9443 Deer Path Ln., Magnolia, TX 77354. PhD '87, MS '81. I was fortunate to return to Lawrence for the North-South Central GSA last April. My has Lawrence grown! A variety of activities including Samuel's soccer and Elizabeth's gymnastics consumes all of the free time that Marsha and I once had.

LAZINSKI, JOHN, 8415 Westminster Court, Auburn, AL 36804. BS '87. I became the SE Regional Manager for Hydromatic Pump Co. in April 2007. Hydromatic is a leading manufacturer of submersible water and wastewater pumps. I am responsible for managing a group of distributors in the southeastern U.S. In 2005, my family (wife and two kids) and I grudgingly picked up and left Florida for a college town called Auburn. What I didn't remember was how fun it was/is to live in a vibrant college environment! "War Eagle!"

MELLAND, JAMES E., 410 N. Maxwell, McPherson, KS 67460. Non-degree. President of Melland Engineering, Inc.

SPORLEDER, JONATHAN (J.C.), 54568 Maple Lane Ave., South Bend, IN 46635. MS '87. After 19 years of service with EIS Environmental Engineers, Inc., I recently accepted a new position as senior project geologist with Heartland Environmental Associates, Inc., in South Bend, Ind. I keep busy with work, volunteer work for various non-profit conservation organizations, and my children (Carl, 14, and Jennifer, 13).

1988

KIRCHNER, KYLE, 7419 Windlawn Way, Parker, CO 80134. BS '88. Principal engineer with Hirsch Gibney.

WILSON, MATTHEW E., 17 S. Buckboard Ln., Marlborough, CT 06447. MS '88. We're having our family reunion at Yellowstone. I hope no one asks me too many questions about geology. One of these days, I'm going to get up to Vermont to visit Brian McNeice.

1991

ROBB III, ALBERT J., c/o EM Singapore, PO Box 4490, Houston, TX 77210-4490. MS '91. In March 2007 I accepted the position of manager of the Asia Pacific Security Business Center for ExxonMobil, based in Singapore (funny how those military backgrounds catch up to you!). Living in Singapore has been quite enjoyable so far, and my wife, Michelle, and our 3-year old son, Rylan, think they are on an extended vacation. (Going to the pool most days!) There are lots of igneous and metamorphic rocks exposed here in Singapore, but also some sedimentary formations that have not been subject to extensive deformation; I can't wait to find some fossils! I have staff based throughout the region reporting to me who I have to visit occasionally so I have also been traveling quite a bit; have been to Indonesia, Malaysia, Thailand, Japan, Sakhalin Island (Russia) and Australia so far. I'll likely be here for a few years, so drop me a note if you will be in Singapore! Thanks for your help with this, and again I hope that all is going well in Lawrence!

1992

HANNA, STEFANIE SUE TAUNTON, 6199 Crescent Rim Dr., Ozawkie, KS 66070. MS '92. Stay at home mom.

SYRUP, KRISTA, Moraine Valley Community College, 9000 W. College Pkwy, Palos Hills, IL 60465-0937. BS '92. Still enjoying teaching geology at MVCC. I was promoted to Asst. Professor last year, but the really big news is that Zeg and I had a baby boy, Seth, in February '07. I already started saving for his KU tuition.

WEBER, ROBERT J., 4709 Bluejacket Street, Shawnee, KS 66203. BS '92. Katy and I were married on May 19, 2007. The honeymoon was in Hawaii and was a wonderful experience. We're really enjoying our careers at the U.S. Environmental Protection Agency and life in Kansas City.

YOULE, JOHN, 1278 Fox Hill Drive, Longmont, CO 80501. MS '92. Working as a Partner for Sunflower Energy LLC.

1995

CUNNINGHAM, KEVIN, US Geological Survey, 3110 SW 9th Ave., Fort Lauderdale, FL 33315. PhD '95. Geologist.

KEISWETTER, DEAN, 205 Roebling Ln., Cary, NC 27513. PhD '95, MS '92. Senior scientist with Science Applications International Corporation (SAIC).

LUCZAJ, JOHN, 2743 Durham Rd., Green Bay, WI 54311. MS '95. I am currently working as an assistant professor at University of Wisconsin, Green Bay, and have continued my research on carbonate diagenesis and water and rock interaction. Betsy and I have been in Green Bay for two years, and we are very happy here. This summer we had a new addition to our family, bringing the total to four family members. Jenny is almost 3 years old, and Brian was born June 19, 2007. I'm working on several research projects, including the sedimentology of a glacial sediment-filled cave, lead isotopes from Wisconsin galenas and the hydrothermal diagenesis of northeastern Wisconsin's Paleozoic rocks. It was great to see many of you all again at the 2007 GSA meeting in Lawrence this spring. We wish you all the best of luck in the coming year!

1996

FILLMORE, ROB, 405 N. Iowa Street, Gunnison, CO 81230. PhD '96. I was promoted to professor at Western State College of Colorado in 2007. I was chairman of Rocky Mountain Section, Geological Society of America in 2006. Currently finishing second book on geology of southern Utah, including San Juan River area, Canyonlands, Arches and Book Cliffs areas. I have two boys: Everett (9) and Henry (6).

LINDGREN, ED, 3911 W. 100th Terrace, Overland Park, KS 66207. MS '96. Senior geologist for Burns & McDonnell Engineering Co., Inc. in Kansas City.

SMITH, GEOFFREY, 4800 Queal, Shawnee, KS 66203. MS '96, BS '85. Senior manager for Environmental Health & Safety with AT&T.

STEINLE (BOYD), ANDREA S., 7181 McIntyre Ct., Arvada, CO 80007. MS '96, BS '90. Still working U.S. exploration for EnCana. Had a fun family vacation this summer digging dinosaur bone from Jurassic rocks in northern Wyoming. We unearthed seven sauropod femurs along with good spine and pelvic bones, all of which will be donated to the Omniplex Museum in Oklahoma City.

1997

CASTELINE, JANE M., 517 N. West St., Alexandria, VA 22314. BS '97. Program manager for the Water Environment Research Foundation.

1999

FRANKLIN, STEVE, 3133 N. Doris Ln., Appleton, WI 54911. MS '99. Chemistry teacher, Appleton West High School. At this point I now have two artificial hips, and I love 'em. If your hips ever go bad; don't wait, the technology is there!

2001

CUNDIFF, JESSICA, 10 Wendell St. #21, Cambridge, MA 02138. MS '01. It was really great to see some of you at the South-Central and North-Central Section GSA meeting in Lawrence. I was happy to have the opportunity to return to KU and be a part of the symposium honoring Roger's many contributions to paleontology. I continue to enjoy my work with invertebrate paleontology collections at the MCZ and have applied for the position of curatorial associate, hoping to become Fred Collier's successor. In June, I graduated with a masters of liberal arts in museum studies from Harvard Extension School. Harvard graduation is indeed something to experience, but my fondest memories of graduation are still of my walk down the hill at KU. With that Jayhawk pride, I remain active in the Boston KU Alumni Club as club leader and enjoy planning basketball watch parties and other events for the KU faithful in Boston. Rock Chalk and Best Wishes.

DARBY, SARAH SANTEE, Samson, 2 W. 2nd St., Tulsa, OK 74103. BS '01. I am working as an associate geologist at Samson in Tulsa. My husband, Ryan, and I are expecting our first little one in October. Look for him or her on campus around 2026!

HEMPHILL, LLOYD, PO Box 29, Lecompton, KS 66050. BS '01. Hydrogeologist with Quad State Services, Inc.

HIEMSTRA (PULLIAM), CHRISTY, 26714 Twilight Grove Ln., Cypress, TX 77433-1624. BS '01. Husband Erik has continued to work at ConocoPhillips in Houston, TX as a geologist, where he has continued to travel both domestically and internationally working on a variety of different projects. Christy continues to work at Marathon Oil as an HR Consultant traveling domestically to a variety of different field locations and working on different projects. We are expecting our first child at the beginning of February 2008. We're looking forward to becoming parents of a future KU alum!

JOHNSON, CHRIS, 467 66th Street, Oakland, CA 94609. MS '01. Doing consulting in the Bay Area is great! Climbing a lot in the Sierra and having fun adventures. Thinking about you all. Keep in touch!

ROHS, C. RENEE, 538 W. 2nd, Maryville, MO 64468. PhD '01. The past year has been an enjoyable but busy one. In July 2006 I took the position of interim faculty assistant to the provost here at northwest Missouri State University. Now, a year later, I am returning to my full-time faculty position with knowledge and experience that will serve me well in the years to come. I'm looking forward to moving some research projects from the back burner to the front. My family is doing well and my children are growing quickly (Lillian, 6; Finn, 3). I thoroughly enjoyed the time with faculty and alums at both the national GSA and combined NC-SC GSA meetings this year. It was a good year.

2002

HEATH, W. SCOTT, 2931 South Dinwiddie St., Arlington, VA 22206-1405. MA-Museum Studies '02, MS '01. Consultant associate for Informal Learning Experiences, Inc. in Washington D.C.

VINSON, MICHAEL, 13903 Bay Gardens Dr., Sugar Land, TX 77478. BS '02. Received Ph.D in earth science from Rice University, Houston, Texas; "Crystal Dissolution Kinetics: Linking Surface Processes at the Solid-Solution Interface over Multiple Length Scales," January 2007. Thesis won the Leroy Caleb Gibbon Award in geology for best-conceived and written thesis, 2007. My wife, Amy, and I are expecting our first child in September 2007.

2003

MALTESE, ANTHONY, 2343 Silent Rain Drive, Colorado Springs, CO 80919. BA '03. Working as a curator in the Rocky Mountain Dinosaur Resource Center.

PYLE, JULIE, 624 Downing Street, Denver, CO 80218. B.S. '03. Working as a geologist for Pason Systems.

2004

HIEMSTRA, ERIK, 26714 Twilight Grove Ln., Cypress, TX 77433. MS '04. See Hiemstra, Christy ('01) above.

STIGALL, ALYCIA, 7675 N. Blackburn Rd., Athens, OH 45701. PhD '04, MS '01. We have had an exiting year. This past December, we were married in a beautiful outdoor ceremony in Sedona, Ariz. Surrounded by mountains of red Permian sedimentary rocks was the perfect place for two paleo-Jayhawks to get married. We continue to enjoy working in the Geological Sciences Department at Ohio University; 2007-2008 will be Alycia's fourth academic year and Dan's third. Starting this upcoming fall, Dan will be transitioning from a post-doc/lecturer into a tenure track position, which is really exciting. This past year we've had the good fortune to travel to some exciting places such as the Canary Islands for meetings and Alaska for fun, but (almost) equally exciting was the NC-SC GSA meeting in Lawrence; it was great to come home and visit.

2005

HEMBREE, DAN, 7675 N. Blackburn Rd., Athens, OH 45701. PhD '05, MS '02. See Stigall, Alycia ('04) above.

JENNINGS, DEBRA S., 1800 S. 8th Street, Apt. 123, Waco, TX 76706. In the process of finishing a PhD at the Baylor University Department of Geology with Dr. Steven Driese. Taught one semester (last fall) at Hill College, Hillsboro, TX.

VINCENT, PAUL, 1115 Le Green Street, Houston, TX 77089. MS '05, BS '03. Paul and Stacie had a little girl, Ramona, in November 2006. Paul finished his second year with Chevron in May and is currently operations manager for an acquisition research project in the Gulf of Mexico. Stacie has her hands full trying to keep a step ahead of Ramona, whose sense of adventure outpaces her co-ordination.

2006

PELLEGRINI, RODRIGO, 338 W. State St. #1, Trenton, NJ 08618. MA '06, MS '03, BS '98. I was recently confirmed by the state of New Jersey as the State Museum's Natural History Registrar, a position that is ideal for me. I get to do field work in paleontology, research and be the collections manager for the Natural History Bureau. In addition, I can choose to help out in educational programs. In other words, I get to do everything I always wanted in a museum setting. I only wish the state was a little easier on traveling; it is difficult to get permission to attend conferences. Also, most of the results of my MS thesis research were recently published in the *Transactions of the Kansas Academy of Science Journal.*

Memorials

William L. Adams

Former Chairman of the Geology Associates Advisory Board

The Department of Geology and the Geology Associates Advisory Board lost a great friend and loyal supporter with the passing of William L. "Bill" Adams in February of 2007, following a chronic illness.

The retired chairman and CEO of Union Pacific Resources Co. was 78 years old. His wife, the former Betty Ann Froehlich, died five months later after a long illness.

A strong and brilliant leader in the upstream oil and gas industry, Adams was always true to his Kansas roots. He grew up on a farm near Clay Center, the sixth of eight children in a close family. Farming in central Kansas in those days following the Great Depression created a strong work ethic.

In his undergraduate days at KU, he developed a passion for geology that lasted a lifetime. He graduated from KU in 1951 with a geology degree and joined the Navy, serving as an officer in the Pacific during the Korean War. While in the Navy, Lt. Adams met and married Betty in Los Angeles, Calif. Bill and Betty had four sons: Glenn, Craig, Drew and Kenneth and 14 grandchildren.

After finishing a master's degree in geology at UCLA in 1956, Adams joined Stanolind Oil Co., which later became Amoco Production Co. Working out of Stanolind's Liberal, Kan., office, Adams quickly showed his talent as a geologist and leader.

His research on the Morrowan rocks in the Anadarko Basin led Amoco to drill and develop major natural gas reserves in the Morrow sandstones at intermediate basin depths. He won the best paper award at the American Association of Petroleum Geologists convention in 1964 with a presentation on diagenesis of Morrowan sandstones. From the onset of his career, Adams recognized the importance of "understanding the rocks."

As a supervisor and manager, Adams emphasized the importance of well-documented geology linked to creativity and timely decision making. His keen intellect and business acumen catapulted him up the ranks of management. However, Adams always respected and emphasized geology as the foundation for exploration. Attending a management committee meeting run by Adams could be both intimidating and exhilarating. He demanded that geologists, geophysicists and engineers be well prepared when making recommendations. He could absorb and synthesize the essence of a problem or opportunity with lightning speed, make quick, but sound decisions, and provide direction that allowed projects to be implemented rapidly. Adams was a great believer in the application of new technology to the right geology. Under his leadership, Amoco was successful in many exploration programs.

Adams advanced to the positions of vice president of exploration in the Chicago general headquarters of Amoco and to vice president and regional manager of the New Orleans region office.

Legendary executive William T. "Bill" Smith brought Adams to Champlin Petroleum Co. in 1981 as executive vice president. A former Amoco vice president, Smith had put together what some called the "deal of the century," which allowed for the exploration of 7 million acres along the Union Pacific Land Grant.

Adams served as president and chief operating officer of Champlin before becoming chairman and CEO. He was instrumental in changing Champlin's name to Union Pacific Resources Co. in 1986. During Adams tenure at the helm, the company became the leader in applying horizontal drilling technology successfully to the Austin Chalk trend in Texas and Louisiana, which generated record earnings.

Adams believed in the value of higher education and particularly in the Department. He served as chair of the Geology Associates board from 1995 to 2000. He was generous in his support of the board's fund raising – an effort that has helped the Department achieve national ranking in competition with larger departments.

He also convinced the Union Pacific Foundation to establish a distinguished professorship in geology.

When it appeared the department might lose the lease to the Canon City, Col., field camp, Adams helped faculty members search for a new site and arranged for Union Pacific to donate a full section of land for another camp in Wyoming. Although the department was able to purchase the Canon City site, the location near Rawlins, Wyo., is available for future use by KU.

One of Adams fondest KU memories was of his experience in field camp. Adams believed field geology was the most important component of geological training.

The Adams tradition of exploration is continued today by sons Glenn and Craig, who are officers and owners of ADEXCO, a successful independent company headquartered in Fort Worth, Texas.

Adams was a great friend and supporter of KU geologists, and he often mentored and encouraged young people in the industry. I will always remember him saying: "The will to succeed is what makes the difference".

- William D. Pollard

William Meredith Merrill

Former Department of Geology Professor and Chair

The KU Department of Geology lost a pioneering leader on March 6, 2007, when William Meredith Merrill died in Baldwin City, Kan., after a short illness. Professor Merrill was 88.

Awarded the G-Hawker Medal in 2004, Merrill founded the Geology Associates Program and helped lead the Department into a new age. Merrill came to the Department in 1963 to begin what would turn out to be a 20-year career at KU. An expert in stratigraphy and sedimentology, he served as chair until 1972.

"His achievements were critical to KU Geology," Chair Bob Goldstein says. "He initiated the Geology Associates Program that, in many ways, led to the Department's long-term success. He hired the core faculty of the mid-1960s – Randy Van Schmus, Pat Bickford, Roger Kaesler, Curt Teichert and Bert Rowell. They paved the way for continued development of the Department's strong reputation."

Many count the Geology Associates as one of Merrill's greatest accomplishments.

"Bill was instrumental in getting together with Merrill Haas and other alumni and in setting up the first Geology Associates meeting," Van Schmus says.

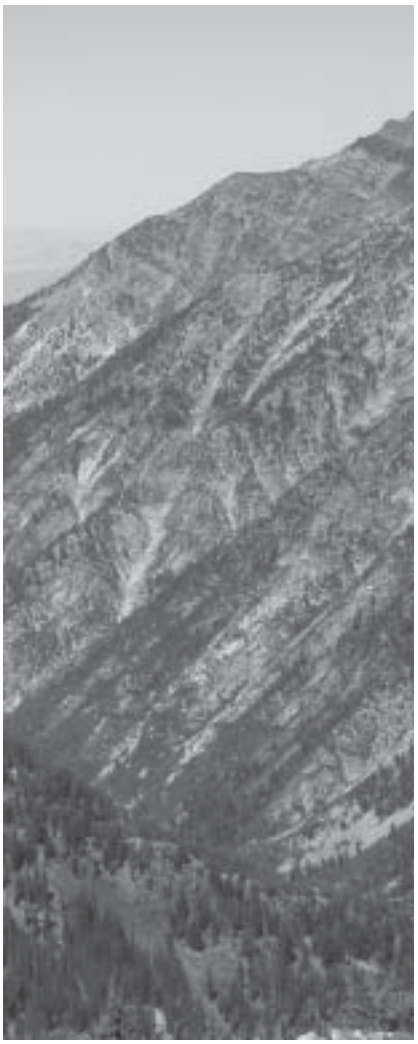
Described as "quiet and intense" by Emeritus Professor Ernest Angino, Merrill's former students called him a tough but fair professor.

Larry Brady, a senior scientific fellow at the Kansas Geological Survey, earned a master's in 1968 and a doctorate in 1971 under Merrill's keen eye.

"He was a good person to me," Brady says. "I enjoyed his company. He was very critical in his reviewing and editing of my thesis work. That's the sort of thing that's always a shock to a graduate student, but it was certainly important that he was. It helped my writing. It was hard at the time, but it was a valuable lesson."

Professor Merrill graduated from Michigan State University in 1940. During World War II, he served in combat as a U.S. Army tank commander in North Africa, Italy and France and retired with the rank of major. He received a PhD from Ohio State University in 1950 and served on the faculty of the University of Illinois and Syracuse University before coming to KU.

William Merrill's survivors include his sons, Russell, Woody, Douglas and Timothy.



Emmet C. Barney (MS '59), of Fayetteville, Ark., lost his five-year battle with chronic leukemia on Jan. 11, 2006. Barney was a retired exploration manager for Enstar Petroleum Co. He is survived by his wife, Bonnie, daughter Rebecca and sons Stewart and Robert.

Karl E. Becker, 90**,** died Oct. 14, 2006, at his home in Wichita. A retired independent petroleum geologist, Becker was a former member of the Geology Associates Advisory Board and a past president and honorary member of the Kansas Geological Society. He earned his undergraduate degree from Miami University of Ohio. During World War II, Becker served as a captain with the 8th Army Air Force in England. He pursued graduate studies at the KU Department of Geology in the late 1940s. He is survived by his wife of 64 years, Virginia; brother William; children Karl Jr., Paul, Ruthie and Bruce and many grandchildren.

Ray G. Ellis (BS '50), passed way April 3, 2007, of Parkinson's disease. Ellis was a geological engineer. His wife, Wanda, reports that he died very peacefully at home.

Neil John "Jack" McMillan (PhD '55) died Nov. 7, 2006, after a long battle with Parkinson's disease. He was 80. McMillan earned an undergraduate degree from the University of Manitoba and a master's from the University of Saskatchewan. As a field officer for the Geological Survey of Canada, he participated in the mapping and assessing of the petroleum potential of Canada's Arctic Islands. He is also remembered for his discovery of fossil forests in the Arctic, research pioneering petroleum exploration off the coast of Labrador and his presidency of the Canadian Society of Petroleum Geologists. He is survived by his children David, Elizabeth Anne and Paul; his grandchildren, Christopher, Matthew, Stirling and Duncan; and his brothers, Bob and Bill.

Warren J. Wahlstedt (MS '64), of Golden, Colo., died Dec. 19, 2006. Wahlstedt earned an MBA from KU in 1967 and an MS in computer science from the University of Denver in 1989. A geologist, systems analyst and computer programmer, Wahlstedt was retired from Cities Service Oil and Gas Corp, a subsidiary of Occidental Petroleum Corp., and the U.S. Department of the Interior. For several years in the 1980s, Wahlstedt was in charge of the Data Center for Occidental. He was active in the Civil Air Patrol in Colorado and an active volunteer at the Center on Deafness, at a support group for people who were losing their vision and at the retinitis pigmentosa Foundation Fighting Blindness. He is survived by his wife, Judy, and daughter, Angeli.

Robert "Bob" L. Walters (BS '62, MS '84), 69, passed away March 29, 2007, after a long illness. Walters worked at KU for more than 34 years, starting as a graduate student and later working at the Space Technology Center. Walters ended his career as manager of research facilities for the KU Center for Research. He served on the Lawrence City Commission for four years, as mayor from 1989 to 1990 and was involved with the Sister Cities program. Walters is survived by his wife of 42 years, Anne; and sons Andrew, Christopher and Michael.

Thomas P. Wingate (BS '83), 45, died Jan. 29, 2007, at his home in Kingwood, Texas. After attending KU, Wingate earned a masters degree from Wichita State University. He maintained a perfect 4.0 grade point average at both KU and WSU. He pledged Phi Kappa Psi while at KU and continued to be actively involved in the fraternity after graduation. He is survived by is wife of 20 years, Brenda; his daughters, Laura Ann and Julie Ann; his parents, Garold and Diane Wingate; brothers, Tim, Steve and Mike.

Looking for Lost G-Hawks

The former geology students listed below are all lost as far as the alumni database is concerned. Please look through the list to see if you recognize anyone. If you have news of them, let us know. We're interested in addresses, name changes, employer names and addresses or anything else you can tell us. We'd love to retire these folks from the land of the lost.

1931-1940
Frank H. Alexander, BS'40,MEng
Ralph E. Hinkel, BA'32
Frank Wood Jones, '32
Charles S. Rohrer, BS'34, MEng
Howard Winn, BS '39

1941-1950
Ted Beaver, BS '50
Robert M. Castator, BS'49
James D. Chappell, BS'41, Meng
Albert J. Hanners, '43
Walter L. Hurt, '48
Robert James Mann, '45
Ernest E. Pelzer, '50
George H. Spivey, '50

1951-1960
Neal R. Alleman, BS'52
Roger Arbour, '60
Allen N. Bates, '57
Charles E. Beardslee, '60
William L. Brown, MA'54
John Vincent Combi, '56
Victor C. Cope Jr., BS'56
Darrell E. Davis, MS '59
Thomas L. Downs, BA'56
Robert John Emmanuel, '51
James Ray Fasbender, '54
William Gordon George, '57
Randall Kay Graber, BS'52
Lewis Donald Gurman, '60
Julian W. Hawryszko, MS'57
Robert W. Heil, BS'59
Lonnie J. Hopkins, '59
George R. Huebner, BS'57,MEng
Gerald Arlo James, '54
William K. Johnston, '56
Robert H. Kuckelman, BS'53, MEng
Jean Lacasse, '60
Donald Lee Lamar, '53
Arthur David Lapadat, '60
Arthur A. McGinnis, BS'51, Meng
Jack Morelock, '55
Mary Jo Moyer, BA'57
Fred Charles Myers, Jr., '51
Jesus Ojeda Rivera, '59
Dale Romaine Olson, '54
Reed H. Peterson, '51
George W. Plant, BS'52
Homer U. Ries, '51
Herman Ewers Simpson, '59
Charles J. Sloanaker, MS'51
John Willis Strickland, '51
Robert Lowell Tedrick, BS'60
Verna Mae Torres, '60
Patricia (Morgridge) Tucker, BS '56
Cleo E. Vague, BS '51
Ivo George Vonderwell, '59
Dwight E. Waddell, '59
Ned Wellborn, BS'53
Jay D. Whiteford, BS'54
Wayne P. Wright, BS'51
William A. Wycherley, '54

1961-1970
Ibrahim Abd El Wahid, MS'63
Jimmie Dean Bowman, '61
Eugene O. Bowser, '61
David S. Brumbaugh, '68
Dean K. Bryson, '63
Earl H. Budke Jr., '68
John J. Coble, '68
Anthony E. Corcoran, BS'64
Faramarz Frouzan, '63
Robert Jacob Garrecht, '64
Karl Lesley Geller, '67
Carolyn Lee Griffin, '68
Reginald V. Hicks, MS '62
Peter W. Huelsenbeck, '64
John Huh, BA '68
Philip M. Knighton, '66
Robert Clement Koch, '64
Miriam Larson, BS '69
Paul Lerner, '64
Tommy R. McKellar, MS'62
Mustafa A. Mitwalli, '61
Harry W. Mueller III, '68
Theodor Neague, '69
Tomohide Nohara, '67
Albert F. Noonan, '70
Jin Sang Oh, '67
Yacoub Ahmad Qandil, BA'59, MS'61
Charles G. Roberts, '69
Richard Harvey Roda, '63
Luis R. Rodriguez, MS'65
Malcom B. Roy, MS'66
Tyson D. Runnels, BS'69
Dennis Wayne Slater, '69
Paul Lewis Steineck, '63
Bruce Allan Thompson, '61
Thomas L. Teer, '69
Howard C. Thornton, Jr., BA'67
Clyde T. Williams, BA'62

1971-1980
Yacoub Y. Alhajji, '74
Gholamhosien Bangali, '73
Faustin Bangole Yenvou, BS'75
Carlos A. Belfort, '71
Bipinkumar Bhatt, '74
J. Dennis Brewer, '80
Jean M. Bridges, BS'70, MS'74
Andra D. Cohran, '72
Roy E. Cox, '76
Jafar Dirin, '73
Maria B. Edwards, '74
Abdurrazak A. Endisha, BS'79
Susan L. Fezie, '76
James Hontos, '73
Dale D. Hudson, BS'74
Daniel T. Jenkins, '76
Edward L. Leanhard, BS'79
Sandra R. Malmberg, '80
James E. Mathewson, '75
Stephen McGie, '79
Marvin B. McKinney, '73
J. Peter Mills, MS '65,PHD '74
Adam Morawski, BS '77
Francois R. Nguene, MS '78
Yaw Ntiamoah Agyakwa, '79
Adeleke Odutola, BS '72
Kyle D. Parker, '80
Robert E. Plump, BGS'75
Maryette Hanson Rogers,'75
Sigfrido P. Santiago, '72
David F. Schmidt, '76
Takeshi Setoguchi, '71
Ali Seyrafian, MS'78
Lyle R. Silka, '74
Betty Jean Socha, '76
Benja Songsirikul, MS'78
Robert H. Teifke, MS'72
Elizabeth Trainor, '75
Michael C. Whisler, '80
Robert S. Woods, '78
David T. Wilson, BS'73
Leonard L. Woolsey, MS'71

1981-1990
Talat Younis Abdullah, MS'84
Zulkifly Ab Rahim, BS'85
Keyvan Aliabadi, '89
Gregory Bown Andersen, '82
Cihat H. Basocak, '81
Victoria Bennett, '90
Barbara Biggers, '85
Carol Dixon Brinton, '81
Jeffrey A. Burk, '84
Mehemmed A. Busifi, BS'82
Edward Le Carper, '85
Scott Dennis Coon, '83
Randy Louis Corey, '81
Bruce A. Cox, '82
Richard James Cox, '81
Troy Randal Curran, '85
David C. Daniel, '82
Rodziah Haji Daud, BS'86
Pablo Alfonso Delgado, '86
Ute Doring, '90
Mary Wier Dossett, '83
Rene Christine Elwood, '81
Brett Edward Engel, '83
Usama M. Fergiani, '82
Eric D. Goldman, '86
Mark Wayne Grommesh, '82
Alexander Hagens, '89
Donald H. Harrison, Jr., '81
Jason C. Heath, '90
Dennis G. Hitz, '81
Hann Chen Huang, '80
Steve Kuoyi Huang, '82
Dan R. James, '82
Robert M. Joeckel, '86
Jeffrey Lee Jones, '89
Susan C. Kent, '81
David Alan Kvam, '82
Mastura Abdul Malik, BS'86
Jeffery Scott McCoy, '83
Andrea Lou McEachern, '82
Kevin Earl McFarland, '82
Kamal T. Moghadam, '85
Muftah Giuma Mohamed, '83
Ali Muftah Mshirab, '82
Russell King Murphy, BS '83
Soheila Nasseri, BS '83
Rebecca D. Oswald, '83
George C. Outlaw, '83
Mitch R. Powers, '90
Reyes Jacobo Quesada, '86
Kim G. Rightmire, '87
Charles E. Schabel, '82
Monsef A. Swedan, BS'81
Chandra D. Tiranda, BS'88
Milos Velechovsky, MS '85
Michael A. Wheeler, '84
Stephen E. Wiseman, '81
Di Zhou, PhD'85
Mark Hamilton Ziegler, '81
Timothy J. Zolnowski, '81

1991-2000
Todd Alan Campbell, '91
Tyan-Ming Chu, PhD'96
Aaron W. Cox, '95
Joseph John Keeling, '92
Margaret S. Mills, MS '92, PhD '94
Stephanie Ann Ruegnitz, '92
Alan Wade, MS '92

Coming Events

AAPG 2008
April 20-23 – San Antonio, TX

Alumni reception on Monday, April 21, 2008. See convention program for specific time and location.

GSA 2008
October 5-9 – Houston, TX

Alumni reception on Monday, October 6, 2008. See convention program for specific time and location.

AAPG 2009
June 7-10 – Denver, CO

Alumni reception on Monday, June 8, 2009. See convention program for specific time and location.

GSA 2009
October 18-21 – Portland, OR

Alumni reception on Monday, October 19, 2009. See convention program for specific time and location.

The University of Kansas
Department of Geology
1475 Jayhawk Blvd., Rm. 120
Lindley Hall
Lawrence, KS 66045

Nonprofit Org.

U.S. Postage

PAID
Lawrence, Kansas
Permit No. 229

Address Service Requested