

**University of Illinois
at Urbana-Champaign**

GEOSCIENCES

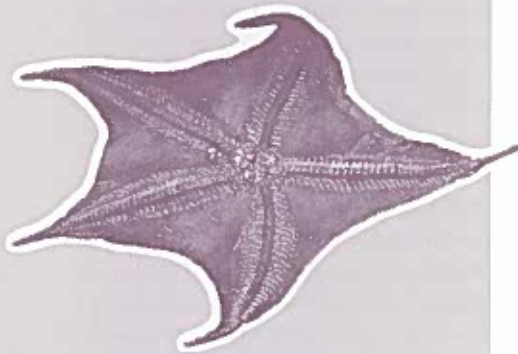


**Department of Geology
Alumni Newsletter
Fall 1998**

GeoSciences

Department of Geology Alumni Newsletter

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About Our Cover:

This is one of the most famous images of a fossilized brittle star, a member of the stelleroid fauna. Undergraduate Alex Glass has developed a passion for these marine creatures after studying with Professor Dan Blake. For more about Glass, see the story on page 9.

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GeoSciences is the alumni newsletter for the Department of Geology, University of Illinois at Urbana-Champaign. It is published in the fall and spring of each year.

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<http://www.geology.uiuc.edu/>

From the Department Head

Dear Geology Alumni,

As I take stock of my first year as department head, one of the most pleasant parts of the job has been the opportunity to meet so many of you throughout the country. At the AAPG meeting in Salt Lake City last spring, I was able to meet a number of our alumni, and I look forward to future opportunities to get to know you. We will continue to have alumni gatherings at professional meetings and other events around the country because your ideas and experience are a crucial asset to the success of the department.

We have ambitious plans for the department again this year. Our enrollments in geology courses remain high, and our department has developed a reputation for offering some of the highest quality teaching on campus. For the first time in many years, we offered summer courses this year (Planet Earth and History of Life) and they both had excellent enrollments, especially for new summer offerings. We are continuing to build a relationship with the College of Education on campus and the public schools in the community. Also, we are initiating two searches this semester for additional faculty: one is focused on geo-microbiology (a growing environmental field), and one is a broader search in several areas of "hard rock" geology (petrology/geochemistry/ geophysics). This is a truly exciting time of growth.



Jay D. Bass

classroom knowledge toward the solution of real geologic problems. In addition it gives the students the opportunity to present themselves at professional meetings, and it gives them a look at what lies ahead of them as they start their careers as geologists.

A research experience also sets our students apart from the crowd when it comes time to apply for a job or graduate school. We have many students who are distinguishing themselves in the research arena, and I hope you'll enjoy reading about the activities

of a few of our outstanding undergraduates in this issue. We are very proud of all they are accomplishing, and believe they are destined to keep up the tradition of achievement that so many of our past graduates have established.

To keep up with developments in the department, be sure to visit our web page at <http://www.geology.uiuc.edu/>. If you visit the University, make sure to stop by and visit the Natural History Building to see

what's going on in the department. We'd love to see you!

Sincerely,

A handwritten signature in black ink that reads "Jay D. Bass". The signature is written in a cursive, slightly slanted style.

Jay D. Bass
Department Head

We have ambitious plans for the department again this year. Our enrollments in geology courses remain high, and our department has developed a reputation for offering some of the highest quality teaching on campus.

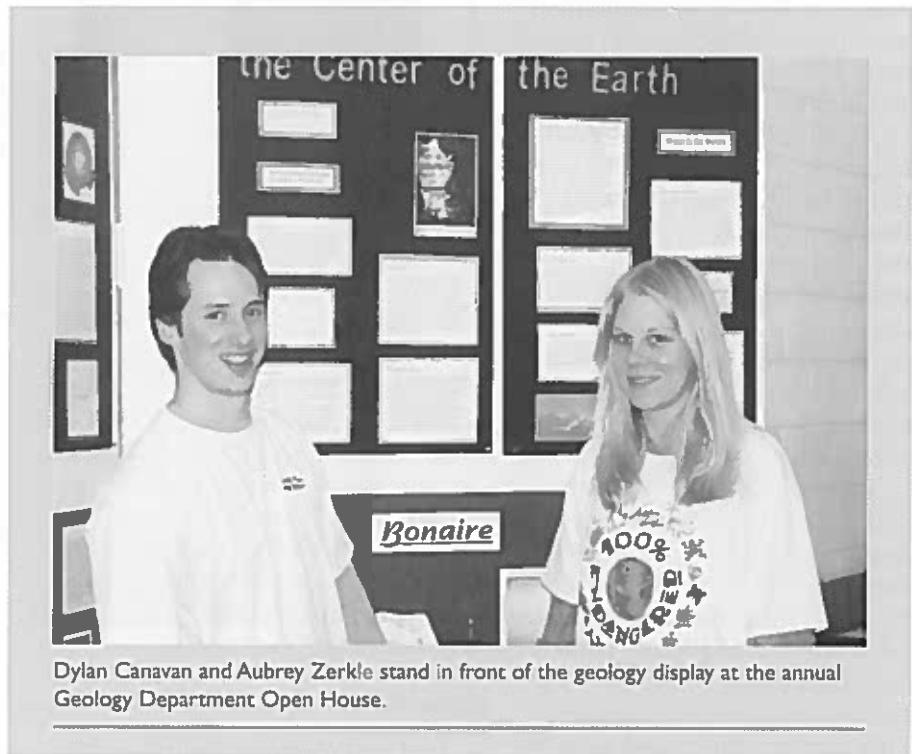
With all this activity, we remain focused on our main message of providing geology students with an education that is second to none. In addition to a firm background in all the basic geologic areas, we are putting more emphasis on involving our undergraduates in research. These undergraduate research experiences are an important way of letting the students apply all their

Check Us Out – <http://www.geology.uiuc.edu/>

Mid-America Earthquake Center Established

Members of the Geology Department have joined a multi-disciplinary effort based at the University of Illinois focused on reducing losses from earthquakes in the central and eastern United States. Funded by the National Science Foundation (NSF), the project is called the Mid-America Earthquake Center. This is the first coordinated effort of its kind to focus directly on engineering for earthquakes in the Midwest and is supported with \$2 million per year for five years from the NSF.

Daniel Abrams, professor of civil engineering, is director of the program. Professor Wang-Ping Chen, who has expertise in the study of intraplate tectonics, has been helping in the planning of the center. Professor Steve Marshak and John McBride, of the Illinois State Geological Survey, also have been involved. There are a total of seven universities involved in the Mid-America Earthquake Center. In addition to



Dylan Canavan and Aubrey Zerkle stand in front of the geology display at the annual Geology Department Open House.

Illinois, those are Georgia Institute of Technology, Texas A & M University, University of Memphis, Washington University in St. Louis, St. Louis University and Massachusetts Institute of Technology.

Sugar Creek Saga

"Sugar Creek Saga: Chronicles of a Petroleum Geologist," is an autobiography by Harold Scott, professor emeritus, that also examines the role of petroleum products in the dramatic changes that have taken place from the 1900s to the present. Copies of the book are available from the department for \$15. All the proceeds go to the Harold Scott Fellowship Fund for student support. Send your orders to Sugar Creek Saga, University of Illinois Department of Geology, 245 Natural History Building, 1301 W. Green Street, Urbana, IL 61801.

Geology Open House

For the first time, the Geology Department joined the College of Engineering for its annual open house for high school students. The event, which attracts thousands from area high schools, often brought by teachers, was held April 13 and 14 in the Newmark Civil Engineering Building. Students from the department set up several displays, including ones on field geology, luminescent materials, the Bonaire field trip (read article in the last Geosciences issue), a virtual field trip to Hawaiian volcanoes, earthquakes and dinosaurs and various posters on thesis work.

Faculty members Bruce Fouke and Steve Hurst helped oversee the open house and were also on hand to answer questions and promote the department. The geology department was the only non-engineering department included in the open house.

New Petroleum Geology Course Offered, Augmented by Software Grant

Steve Marshak is coordinating a new department course in petroleum geology this fall. The course, co-taught with Hannes Leetaru, Ph.D. '97, of the Illinois State Geological Survey (ISGS) is an opportunity for graduate students to learn geosciences applications in the petroleum industry. Marshak will augment the course by inviting several guest lecturers from the ISGS and the department to talk about their specific areas of expertise within the petroleum geology field.

Leetaru will be primarily responsible for creating hands-on applications dealing with problem sets. "We want to make this a practical course so that those who finish it will actually know what they would be doing in a career as a petroleum geologist," he says. "It's hard to understand what petroleum geologists do without having had a course like this."

The course also will use Landmark Company software to inter-



Steve Marshak (with beard) and Hannes Leetaru look at a cross section of an oil field in preparation for the new petroleum geology course.

Way to Go!



Barbara Elmore, a secretary in the department responsible for all student affairs, has been selected to receive a Chancellor's Distinguished Staff Award. This award is given annually to only a few staff members campus-wide. Great work Barb!

pret and display subsurface data. The Landmark software is part of a three-year renewable grant from the company to the ISGS and the department. Leetaru is the principal investigator on the grant.

"The survey and the department have been growing closer together over the last several years, and I saw this grant as another way to promote that collegiality," says Leetaru.

The grant includes more than \$300,000 worth of computer software that is primarily used for the petroleum industry. Landmark, one of the premier computer software developers for geology in general and petroleum geology in particular, is based in Houston, Tex. The software enables students and faculty to

Stephen P. Altaner was one of four faculty members on campus to receive the William F. Prokasy Award for Distinguished Teaching from the College of Liberal Arts and Sciences.

In the past academic year, eight people in the Geology Department have been included in the campus-wide Incomplete List of Teachers Rated as Excellent. They are professors **Steve Altaner, Bruce Fouke** and **Steve Marshak**; undergraduate **Alex Glass**; graduate students **Judy Becker, Michael Brudzinski, Michael Harrison** and **Joel Johnson**; and visiting lab teaching specialists **Dave Finkelstein** and **Mindy Tidrick**.

model geologic processes in three dimensions, including interpreting data concerning geologic cross sections, mapping, three-dimensional modeling and the better interpretation of seismic data used in subsurface mapping.

Possible recruits for the class of '16?

Graduate student Chris McGarry and his wife, Becky, have a new daughter, Amanda Michele McGarry. Amanda was born June 2 and weighed 8 lb. 9 oz upon arrival.

Professor Bruce Fouke and his wife, Ann, also have a new addition to their family: Kyle William Fouke. Kyle was born March 24 and weighed 8 lbs. 10 oz. At three months he was already 19 pounds. Fouke says, "I had better enjoy being the 'biggest' one in the family while I can!" Kyle has a big sister, Kaitlyn Elise, who is almost two years old.

Record Turnout for Annual Banquet

The annual awards banquet was a lively evening full of humor and gag awards, as well as serious awards. Department head Jay Bass was master of ceremonies for the evening, which primarily honored John Bredehoeft with the outstanding alumnus award (see related story).

The banquet was held April 24 at the Champaign Country Club, and more than 70 people attended. This was the biggest turnout for the banquet in recent years, in part because alumni awards were combined with the student awards ceremony.

"It's not an accident that we combined the student and alumni awards this evening," said Bass at the banquet. "Our alumni represent the best of what our students can accomplish, and they remind us of what the department is really trying to do. Tonight we celebrate what the department has provided to its students and what our students can aspire to."

The Estwing Award, sponsored by the Estwing Company, was given to outstanding undergraduate student Jeffrey Catalano. He received an Estwing Pick.

Maitri Venkataramani received the Outstanding Senior Award and a Brunton compass. Bass joked that Maitri also was voted the most likely to be department head—not to be confused with most likely to succeed!

Two outstanding teaching assistant awards were presented, one for each semester. Judy Becker received the award for the fall semester, and Joel Johnson received the award for the spring semester.

Limei Zhou was awarded the Outstanding Woman Graduate Student Award, which came with a cash gift made possible by a generous but anonymous donor who

wants to encourage women students in geology.

The Morris M. and Ada B. Leighton Award, established by Brud Leighton (B.S. '47, M.S. '48, Ph.D. '51), to honor his parents and to support student research, went



Clockwise from lower left: Lisa Noe, James Palko, Mike Brudzinski, John Baroffio (Ph.D.'64, GeoThrust committee member), Anna Sutton and Frannie Skomurski enjoy a laugh at the annual awards banquet.

to three students: undergraduate Dylan Canavan, and graduate students Michael Harrison and Judd Tudor.

For the first time, the department awarded a Midwest Alumni Research Scholarship Award, a new endowment established by the department's many loyal alumni in the Midwest. Kelcey Dalton, Megan Elwood, Lisa Whitenack and Aubrey Zerkle—all undergraduates—received support from this endowment.

Nine students received field camp scholarships. This award was established by alumni in the Rocky Mountain states to help undergraduates attend field camp. Students who received the award were Rebecca Ashton, Jeffrey Catalano, Aaron DeNosaquo, Alex Glass, Matthew Goddard, Peter Malecki, Jonathan Russell, Adam Scheiderer and Lisa Whitenack.

In addition to these awards, two faculty members also were recognized for receiving campus-

wide teaching awards. Steve Altaner received the William F. Prokasy Award for Distinguished Teaching from the College of Liberal Arts and Sciences, and Bass received the Campus Award for Excellence in Guiding Undergraduate Research. Bass graciously thanked the undergraduate students who worked with him in the lab, saying those students deserved most of the credit.

John Bredehoeft received the outstanding alumnus award, the highest honor the department can bestow on its alumni. The award recognizes a career of distinguished achievement in the field.

After the relatively serious part of the evening was finished, the students took over the microphone for a series of gag awards. Led by graduate student Judd Tudor and junior Dave Beedy, this segment of the awards evening elicited more laughter and embarrassment for various award recipients. In one of the segments, Tudor and Beedy showed candid photos of several faculty, including one that proved that Tom Johnson was really Ming the Merciless. Johnson responded with two awards of his own. Since this year's class was the first hydrogeology class he had ever taught, he presented them with the "Worst Class I've Ever Had" award, followed by the "Best Class I've Ever Had" award.

New Endowment Supports Field Camp

Ed Franklin, B.S. '56, recently established an endowment fund to help undergraduates afford field camp. He was motivated because of his own field camp experiences more than 40 years ago.

"Our field camp was the first time the University was at Sheridan, Wyoming," remembers Franklin. "It was a perfect time and we were taught really valuable information. Field



Carlton Chapman leading a field trip in 1941.

camp is something every working geologist should get a chance to do. At the end of my career I realized that field camp was key to my entire career, beginning with my first job in South America that was with a field party. That first summer I used almost everything I learned in field camp."

Franklin's career was spent entirely overseas, working primarily for what is now Exxon. He worked in Libya (for the company known then as Creole), Venezuela, Australia, Argentina, Thailand, Niger, Chad, Central African Republic, Egypt, Turkey, Spain, Portugal, Mozambique, China and Turkey. Franklin retired from Exxon in 1986 and immediately went to South Africa to drill some wells. After that he and his wife, who shared his peripatetic life, traveled around South Africa in a car. The

couple, who just returned to the states one year ago, has retired to Attica, Ind., where they are building a log home on 186 acres they inherited from Franklin's mother.

Franklin's gift is an example of the power of matching gifts. Exxon's policy is to match charitable donations by employees by a factor of three, up to \$5,000. So if a donor gives \$5,000, for example, Exxon gives that same organization \$15,000. Franklin is spreading his gift out over 10 years to maximize the contribution from Exxon. He hopes this will be enough of an endowment to make sure that every geology student is able to afford field camp.

"I still remember, when I was in school, a couple of kids could have really benefited from field camp, but they couldn't go. It was a real shame," said Franklin, who could attend because he was on the GI bill.

Franklin had established some scholarships for field camp several decades ago, but that effort petered out for various reasons. Once he retired he felt he wanted to do something, so last spring he met with Jay Bass and Morris (Brud) Leighton (B.S. '47, M.S. '48, Ph.D. '51), whom he knew from his years in Australia, to discuss the possibilities. It was Leighton who pointed out that Exxon matched gifts at a rate of three times the donor's level.

"I just wasn't aware of it," says Franklin.

That information spurred him on even more, because it meant that many more people could go to field camp with no strings attached.

Matching Gifts: Put Your Money To Work

Just like Ed Franklin, there may be other donors who are unaware that their employers match their own donations to certain charitable organizations. Not only are matching gifts a great way to magnify the power of your gift, it is a simple procedure. Just contact your human resources or personnel office to find out if they match employee gifts. If the answer is yes, your company will have a form, available from the personnel office, that you send in to the University with your check. We do the rest from there. So ask today if your company has such a program and watch your money go to work!

Undergraduates Gain Great Experiences Conducting Original Research

If you agree with the maxim, "those who learn best learn by doing," the undergraduates in the Geology Department have been doing lots of learning. At least 10 percent of undergraduates are doing original research in the department with many different faculty members.

Aubrey Zerkle, for example, is working with Bruce Fouke on new and innovative techniques in cathodoluminescence microscopy to examine near surface dolomitization processes. She is using these techniques in conjunction with detailed plane-light petrography and geochemical analyses to determine the timing of dolomitization and the composition of dolomitizing fluids within a sequence of partially dolomitized limestones from the Seroe Domi Formation in the Netherlands Antilles.

Zerkle aims to complete her B.S. thesis on this subject by the end of the fall semester and will then synthesize it with a similar thesis by her research partner, Kelcey Dalton. Zerkle spent last summer as Fouke's research assistant and preparing for her trip to Bonaire, Netherlands Antilles, in August. In Bonaire, she and Dalton completed the field work for their thesis projects. They hope to present their research at the 1998 Wisconsin Undergraduate Geology Field Conference at the University of Wisconsin this fall. Zerkle and Dalton were recipients of the Midwest Alumni Research Scholarships last spring.

"The undergraduate conference will be good experience for us," says Zerkle, "since we plan to present at the national level in 1999. My experience at the University of Illinois has been excellent. "Being able to do original research has definitely had an influence on my future plans. I have many high



Jay Bass, Megan Elwood and Jennie Jackson examine work at the Brillouin Laser Light Scattering apparatus which measures sound wave velocities in minerals.

school friends who attend schools around the country in the sciences, and none have been offered a chance like this to do real science."

Starfish and Dinosaurs

Lisa Whitenack, also one of the four recipients of the Midwest Alumni Research Scholarships, is participating in two areas of paleontological research. She is studying fossil starfish from the Paleozoic with Daniel Blake, and she is participating in the study of a new species of dinosaur discovered in the Morrison Formation of Wyoming. The tentative name of

this small diplodocid ("you can call him a dwarf brontosaurus, if you like," says Whitenack) is "Microseismus" (his field name is Malcolm). Whitenack spent part of the summer in Wyoming at the excavation, which involved removing at least four more pieces at the quarry where the dinosaur was originally discovered.

This project is directed by Robert T. Bakker, curator of the Tate Museum at Casper College in Casper, Wyo.

"After my experience this summer with Malcolm, I definitely plan on getting my master's in geology and maybe even a doctorate," says Whitenack. "I feel that those of us in the Geology Department are extremely fortunate. Many of my friends are in other departments where they are not encouraged to become friendly with the faculty and staff and therefore don't have the opportunities to become involved in research."

Alex Glass, who graduated this summer, spent his under-

graduate career researching stelleroids (starfish and brittle stars) with Daniel Blake (see related story). Glass traveled to Germany two summers ago to take part in the Nahecaris Project, a salvage operation run by the German government. Although other scholars have been recruited to the project, Glass was among the first to actually undertake the research, thanks to the Norman B. Sohl Award. He and Blake returned to Germany this past summer to continue the project. Glass presented results of this and other research at three different GSA conferences.

Gas Hydrates

Megan Elwood (also a recipient of a Midwest Alumni Research Scholarship) has conducted Brillouin spectroscopy work with Jay Bass for the past year and a half, studying the effects of water content in pyroxenes and measuring their elastic properties. This past summer she interned at Lawrence Livermore National Lab where she worked with gas hydrates, ice and hydrate deformation experiments. She also spent a month at the United States Geological Survey in Menlo Park, Calif., learning how to grow single crystals of gas hydrates. She hopes that this experience will enable her and Bass to do experiments with single crystals of methane hydrate.

"My summer work has given me a good idea of what to expect in a research field," says Elwood. "I'm really happy to have had the wide variety of experiences that I've had in the past two years. This summer, everyone I met was very surprised to hear I'm an undergrad," adds Elwood. "Especially that I'm just finishing my second year and already have one project done and am starting on a second."

Measuring Elasticity

Another of Bass' students, Jenny Jackson, is juggling several projects which will culminate in her senior thesis. Jackson, a senior majoring in math education and minoring in geology, has been trying to measure the elasticity of several materials by using an acoustic method. One project in-

volves measuring the density of aerogels, which are used for coatings on specific instruments that capture debris from comets in order to recover and study them. Using similar techniques, Jackson also is measuring ringwoodite, or spinel, a major component in the mantle's transition zone. Her research will provide information about the composition of the tran-

"Being able to do original research has definitely had an influence on my future plans. I have many high school friends who attend schools around the country in the sciences, and none have been offered a chance like this to do real science."

sition zone and whether the mineral velocities account for the seismic jumps seen in the transition zone. A third project Jackson is working on is measuring magnesium oxide at high temperatures. Magnesium oxide is a component in the hot lower mantle (deeper than 660 km), but nobody knows how much is there. Jackson's experiments will help answer that question. She is doing the experiments using a device that was invented by Bass' students.

Jackson hopes to present her findings at the AGU meeting in December and plans to attend graduate school to study mineralogy at Notre Dame, where she'll study with Peter Burnes (a visiting professor at the Geology Department who was profiled in the

Spring 1997 issue of *Geosciences*). She will focus on nuclear waste disposal problems at Yucca Mountain.

"As soon as I took a geology course I got really interested doing research," says Jackson. "I didn't have any idea in the beginning that I'd be doing so much. It's a real collaboration and I'm very much part of the lab."

Bass is quite pleased with the progress many undergraduates have made in their research projects. He recently received a supplementary National Science Foundation grant in the Research Experiences for Undergraduates Program that has helped him support undergraduate research in his laboratory. The University of Illinois recently recognized Bass' outstanding teaching and advising accomplish-

ments by presenting him with the Campus Award for Excellence in Guiding Undergraduate Research. One reason Bass received this award, he says, is because of the outstanding research Jackson, Elwood and other undergraduates have conducted with him in his lab.

"I've been blessed with some extraordinarily talented students from geology, physics and materials sciences," says Bass. "Some of the outside students switched to geology for their graduate work. Our students are as good as you will find anywhere ... no, better!! All you have to do is provide them with the resources and they achieve things you would never expect."

Profiles

Undergraduate Award Makes Life-Changing Research Possible for Alex Glass

Undergraduate awards can often have a fundamental impact on a student's professional career. For example, because of a 1997 Department of Geology award, Alex Glass, who graduated this summer, traveled to Germany and conducted research that he presented at two GSA meetings and summarized in an undergraduate independent research paper. His experiences will continue to influence his geology career.

Glass was the 1997 recipient of the Sohl award, which was established in the memory of one of the department's most distinguished alumni, Norman F. Sohl, B.S. '49, M.S. '51, Ph.D. '54, who died in 1993. Sohl spent much of his career at the Smithsonian Institute and was a leading authority on Cretaceous gastropods and biostratigraphy.

"Alex has done very high quality work," said his adviser, Dan Blake. "He learned an enormous amount, not only about the pale-

ontology, but geochemistry. He learned a body of work that really prepared him for graduate school, as evidenced by the fact that he got in everywhere he applied—with support. I've had colleagues say to me, 'gee, it's hard to believe he's an undergraduate.' He's presented at three different conferences."

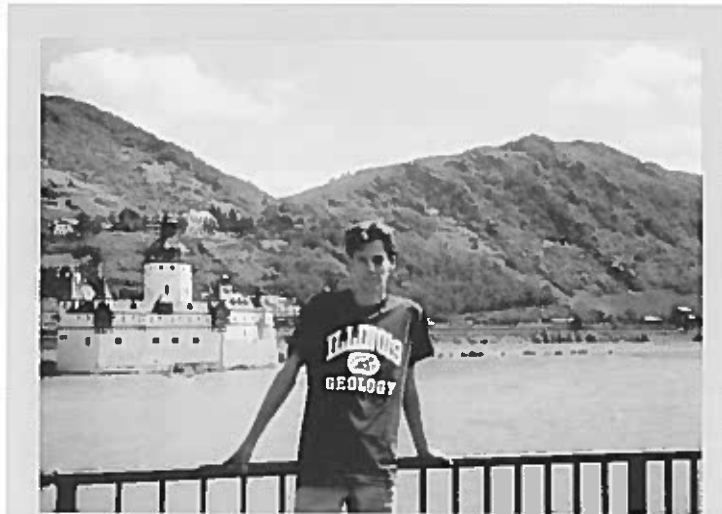
Hunsrueck Slate

Glass, a German native, has lived in the United States since 1989. When he was looking for a senior project, Blake suggested a project involving the Hunsrueck Slate found in the southern part of Germany. Blake had had a longtime interest in the stelleroid fauna (starfish and brittle stars) found in the slate, which hadn't been described since the 1950s. The Hunsrueck, which is in the Rhenish Slate Massif of Germany, has an enormous number of exquisitely preserved sea lilies, star fish, brittle stars and other marine animals. Fossils have been emerging from the region for more than 150 years, primarily as a result of mining operations.

The last fossil-bearing quarry has just ended slate production. Because fossils are primarily found during roof-slate production, further fossil finds are unlikely. Because of the lack of stratigraphic control—no

one ever knows exactly where the slates being processed for roofing purposes come from—Project Nahecaris was established.

Project Nahecaris, founded by the German government, has two parts: a synthesis and survey of all the fossils in various collections, primarily in Germany, but also in



(Above) Castle Kaup in the Rhine River near Bacharach. The roof is slate mined from the area. The hills in the background are black slate and part of the Rhenish Slate Massif. (Right) Glass stands in front of an x-ray photo of a brittlestar. This picture was taken at a traveling German exhibit of the fossils found in the slate.



the United States and Great Britain; and an excavation of 55 tons of slate from the Bundenbach Quarry in order to establish stratigraphic control.

Glass met Nahecaris project coordinator Christoph Bartels in 1996 while visiting his parents near Berlin and they discussed the possibility of Glass joining the project. All discussions were theoretical, however, because Glass had no financial means to get back to conduct research. He thought that perhaps in five years, maybe more, he could get some grant money to work on the project. A few short months later he received the Sohl award. One of the first things he did was call Bartels and tell him the news.

"I think he was kind of shocked," laughs Glass. "We were among the first to come and actually do work. The Sohl award was like a gift from heaven," Glass adds. "I had no idea it was coming, and I wouldn't have been able to do this research without it."

Treasure Trove

Glass' trip to Germany revealed a treasure trove of fossil specimens. Glass and Blake were expecting to find a few hundred specimens, and they ended up seeing a couple of thousand.

"Every time we pulled out a fossil, we'd be oohing and aahing. They are absolutely remarkable. There is a diversity in this single

area that you wouldn't find even today in such a small area," says Glass.

Glass and Blake catalogued and studied fossil specimens from seven museums and two private collections. As a result of his summer experience, Glass has become interested in the sedimentological processes that created the Hunsrueck, the geochemical pro-

"The Sohl award was like a gift from heaven. I had no idea it was coming, and I wouldn't have been able to do this research without it."

cesses involved in preserving the specimens, and the ecology of the area that encouraged such a diversity and abundance of life in such a small area, not to mention the roof slate industry.

Fossils Pyritized

Many fossils found before about 1980 were never prepared past a basic identification. One difficulty is that although they had become pyritized, the fossils were still quite fragile. Often in the process of preparing them, the delicate spines, for example, were damaged.

Techniques have been vastly improved over the last 15 years, and the quality of specimens collected since then is unbelievable, says Glass. Delicate spines, surfaces of skin and ossicles are all visible.

Also as a result of his research, Glass has become very interested in the geochemical processes involved in pyritization. Glass will continue his study of echinoderms and geochemistry as a master's degree student with Bill Ausich, B.S. '74, at Ohio State University. He hopes to return to the Hunsrueck—and perhaps the University of Illinois—for his doctoral research.

Although Glass is, by any measure, an outstanding student, Blake is quick to point out that the opportunities for this level of undergraduate research are readily available.

"If you're so motivated, you can do high level work here," says Blake.

Glass notes that it was great being in a small department.

"The geology department really did replace my family," which had moved back to Germany, says Glass. "And I'm grateful to Professor Blake for his unflagging support throughout my undergraduate career."

Glass' advice to other undergraduates is "don't wait for a project to come to you. The people here are approachable and friendly, so it is easy to have some great experiences, like I did."

Michael Harrison Brings Focus, Passion to his Research

Graduate student Michael Harrison works fast: after being at the University less than a year he has already passed his qualifying exams and is well into his dissertation research.

"I have been very pleased with Michael's progress," says Steve Marshak, professor of geology and Harrison's adviser. "He came in with a strong structural background, he thinks and operates independently, and he's made very rapid progress since he's been here."

Last spring, the Department of Geology recognized Harrison's accomplishments by awarding him the Morris M. and Ada B. Leighton Award, named for Morris (Brud) Leighton's parents. The award also went to Dylan Canavan and Judd Tudor.

"The Leighton award meant a lot to me because Dr. Leighton is a great geologist whose name is synonymous with professional dedication and quality science," said Harrison. "I was truly surprised when I heard my name called at the awards banquet."

Harrison's research focuses on the Appalachian mountains, to which he has always been drawn.

"I've always had a fascination with the Appalachian mountains," says the Pennsylvania native. "It seems like some geologists are looking for more 'sexy' projects, like the Rockies or Himalayan mountains, and others may think all the questions in the Appalachians have been answered, but that's really not the case. There are still lots of mysteries in those old, venerable mountains."



(At left) Michael Harris and his wife, Diane, at the annual awards banquet. (Above) Quarry highwall exposing the Pennsylvanian-aged Pottsville Formation (top) and Mississippian-aged Mauch Chunk Formation (bottom) contact.

Lackawanna Synclinorium

Harrison, who got his bachelor's degree at Kutztown State University (Penn.) and his master's at Bowling Green University (Ohio), has been researching the Lackawanna Synclinorium, a large geologic structure in northeastern Pennsylvania. The formation was first described in detail in the 1940s, yet is still an enigma. The 110-km-long trough is part of the Appalachian fold-thrust belt. Although many theories have been suggested for the formation, they have been highly speculative, says Harrison. He intends to develop a

working model by virtually "unfolding" the folds and moving back the faulted blocks to try to reconstruct how the trough became what it is today.

The first step in his project is to map the synclinorium, which is the size of an entire geological quadrangle (approximately 60-square miles). Harrison managed to map about 60 percent of the area last summer and plans to finish that part of the project next summer. He is working in cooperation with the Pennsylvania State Geological Survey, which is providing coal-mining data and supplies. His work is supported by a USGS grant and the Leighton award.

Now he's in the lab, examining thin sections in order to conduct

strain analysis and to determine how much shortening occurred in the rocks and in what direction they were shortened. This microscopic examination will help Harrison identify the deformation mechanisms present at the grain-scale level.

Large Changes, Small Scale

"I always like to keep in mind that even very large structures, like the Lackawanna Synclinorium, begin with deformation at the grain scale," observes Harrison.

Although Harrison works quickly, he is far from frenetic. In fact the ponytailed, self-confessed *Seinfeld* addict, has a balanced and relaxed approach to life in general and geology in particular. Friends and colleagues describe him as focused and interested in what he is doing.

"I don't think of research as working hard because I like it so much," muses Harrison.

Even as a child, Harrison was so laid back that Boy Scouts seemed too regimented.

"I just like going out and doing stuff, I was never interested in earning badges," he says with a shrug.

In addition to watching television, and conducting research, Harrison has a passion for philosophy and writing, both of which he discovered in college. His love of philosophy led him to minor in that field. Harrison also shares a love of opera with his wife, Diane.

"Being a philosophy minor helped me become a better scientist," says Harrison. "I'm better at making research decisions. Besides if you can get through Emmanuel Kant, you can read any dry piece of literature!"

Harrison took a year off as a junior to experiment with creative writing as a career. To support himself he took odd jobs, such as telemarketing for the Franklin Mint. "It was very humbling for me and it forced me to come to terms with what I wanted to do," says Harrison of that time. "It took me a while to realize you can be a good writer and still have scientific vocation and that you can be a popular writer and do research."

Harrison wasn't always so passionate about geology, or anything else for that matter. With no direction, his high school performance was "dismal," Harrison remembers. Even his first semester at college was a struggle. Harrison credits a single geology course and professor for turning everything around for him.

"When I took my first geology course with Ed Simpson at Kutztown, it was like taking the blinders off. All of a sudden, I knew, I just knew what I wanted to do. I guess I always had the potential, but Ed found the switch," says Harrison.

Simpson sees it differently.

"I had nothing to do with Michael's success," he says with a laugh. "Michael is an incredibly sharp guy and always had lots of potential as a student. He took his junior year off and when he came back he was exponentially a different person. As soon as he figured out what he wanted to do, you wouldn't want to stand in his way."

It was Simpson who encouraged Harrison to present his undergraduate thesis at the southeast conference of the GSA.

"Boy! That was really nerve-racking!" remembers Harrison. "But that experience was a reaffirmation that this was what I wanted to do and that I could do it."

Still wracked by insecurity, Harrison applied to seven schools for a master's program, hoping to be accepted to one or two. Instead, all seven accepted him and he was caught in an unexpected quandary. After his undergraduate experience, Harrison realized that, for him, having a good mentor was more important than going somewhere with a national reputation.

"For me, it's not about the university so much as it is about the person I'm going to work with."

After meeting faculty at each place, Harrison settled on Charles Onasch at Bowling Green State University. It was Onasch who urged Harrison to continue on to the doctoral level. When it came time to choose a doctoral program, Harrison used the same selection method.

"Once I met Steve Marshak, I knew I wanted to work with him," said Harrison.

Harrison hopes to end up in the East and to stay in academics, after having had a taste of teaching as a teaching assistant both here and at Bowling Green.

"I enjoyed the little rewards of seeing students become interested in the topic," says Harrison. "Part of me loves teaching because I want to inspire others the way I was inspired by my various mentors."

"Michael would make an excellent faculty member," says Simpson. "He is a really sharp guy with lots of humility and self-reflection. He also has quite eclectic and diverse interests. He is familiar with the 'fringe literature' like the philosophy of science kind of stuff. And, I think, as a consequence, he thinks a lot more about the implications of what he's doing."

John D. Bredehoeft Adds “Outstanding Alumnus” To His List of Honors

When John Bredehoeft, M.S. '57, Ph.D. '62, started out, ground-water hydrology was about helping people find water, and that appealed to him.

“Hydrology was a pretty stable business, and was conducted near cities. People always need water, particularly in the desert, like Los Angeles, or Tucson,” he said. “Besides,” he jokes, “other industries, like petroleum and mineral industries, took place in God-awful places, like the north slope of Alaska, Saudi Arabia—and even southern Illinois,” he adds with a grin.

But Bredehoeft's career, which began with a B.A. from Princeton in 1955 and included 32 years at the United States Geological Survey (USGS), has gone way beyond helping people find water. His personal research projects have become milestones of modern hydrology, and his work—published in more than 100 professional papers—has been widely recognized.

Last spring the Department of Geology awarded Bredehoeft the outstanding alumnus award in recognition of his lifetime achievements. He adds this to more than a dozen honors and awards he has received throughout his career. In 1997 alone, Bredehoeft received the Horton Medal from the American Geophysical Union, the Penrose Medal from the Geological Society of America and was voted a life member of the National Ground Water Association. Bredehoeft (along with last year's Geology Department outstanding alumnus, Paul Witherspoon) also is a member of the elite National Academy of Engineering (NAE),



John Bredehoeft receives his Outstanding Alumnus Award from Jay Bass at the annual awards banquet in April.

an organization with less than 2,000 elected members.

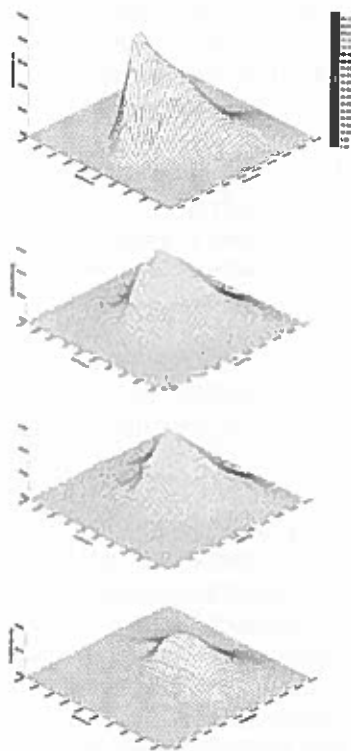
“John Bredehoeft's creativity and originality of thought, his insight and ability to identify the most critical and worthwhile problems of the day and his generous support and encouragement of young scientists combine to make him a role model for others to emulate,” said Leonard F. Konikow, research hydrologist at the USGS, in his speech awarding Bredehoeft the Horton Medal.

Always Fluids in the Subsurface

“John has a very inquiring mind; he's very intellectual and very, very capable,” says colleague and friend Keros Cartwright, Ph.D. '73, who is a principal scientist at the Illinois State Geological Survey (ISGS). “He has done an awful lot within the field of hydrogeology, including bringing hydrogeology into many other fields.”

Others also have cited Bredehoeft's research for its vastly interdisciplinary nature.

“I have moved around from topic to topic in my research, always with the focus on fluids in the subsurface. It always seemed



Series of plots illustrating the changes over time of an area contaminated with diesel fuel. The top image illustrates the initial contamination; the next plot shows the changes after one year; the next image shows changes after two years; and the bottom image shows the contamination levels after 10 years. (Visit the web site at <http://www.MediaCity.com-hydrogup/> to see the plots in color and animated!)

there was more to learn: that was the fun in this endeavor," said Bredehoeft.

Bredehoeft has linked ground-water hydrology with geophysics, geochemistry, tectonics, petroleum engineering, economics and numerical methods. He also was one of the key people to bring computers into geology, says Cartwright. His pioneering computer work included the first widely used numerical codes for simulating ground-water flow and transport.

Among the most "earth shaking" of Bredehoeft's projects was his contribution to the classic Rangley, Colo., experiments where earthquakes were created and controlled by high-pressure fluid injection. Bredehoeft also has examined the hydrodynamics of fluid movements in the deep subsurface and developed methods to measure tectonic strain by using water wells.

Over the last several decades, Bredehoeft has been very vocal about the handling of nuclear waste and has provided thoughtful criticism and analysis of the Department of Energy's (DOE) handling of geologic disposal. He also has served on several National Academy of Sciences/National Research Council committees concerned with issues surrounding Yucca Mountain and the Waste Isolation Pilot Project (WIPP) and has served as consultant on the Yucca Mountain project. As part of this research he created a three-dimensional model of the Yucca Mountain area's response to an earthquake.

"Although John appears to be a quiet guy, he is a very powerful proponent of his view, which is usually correct!" says Cartwright, with a laugh.

In addition to his skills in technical areas, Bredehoeft's colleagues have cited his extraordinary talents in management and administration of research organizations. His career at the USGS was augmented with teaching positions at the University of Illinois; the University of California, Santa Cruz; and San Francisco State University. He was

"I was lucky to go to the U. of I., where my major professor and mentor was Burke Maxey. He instilled in those of us who were associated with him a demand for excellence."

a consulting professor at Stanford University for eight years.

Bredehoeft's career also has enabled him to travel around the world. One country he spent a lot of time in was Russia, where he now has many friends and colleagues. In 1991 he was elected to the Russian Academy of Natural Sciences.

"Retirement"

In 1995 Bredehoeft was ready for a change.

"I was getting into my early 60s and was ready to do something else; but I enjoy working and I didn't see myself retiring, so I decided to go into business," said Bredehoeft.

His business has, logically, been an extension of his career. The main difference is that Bredehoeft now has "clients." The Hydrodynamics Group, which he founded three years ago, is not a large company, though he subcontracts with

other geologists when the need arises, he says. After spending 32 years in public service, Bredehoeft is pleased to now be in business and describes his venture with characteristic modesty as "pretty close to being successful."

Among his current clients are the New Mexico Attorney General's office which has hired him to oversee the work of DOE regarding WIPP. In a case between Wyoming and Nebraska, Bredehoeft is a consultant on the depletion in stream flow in the Platte River caused by ground-water developments in the drainage basin. This case will go to the Supreme Court in 1999. Bredehoeft's group also is doing the hydrologic study of the Upper San Pedro River in Arizona and Sonora that is threatened by ground-water development.

Bredehoeft credits University of Illinois and Professor Burke Maxey with giving him a strong start on his outstanding career.

"I was lucky to go to the University of Illinois, where my major professor and mentor was Burke Maxey," says Bredehoeft. "He instilled in those of us who were associated with him a demand for excellence. At the time, Illinois was one of the few places to study ground water, and a whole generation of ground-water hydrologists came from Maxey. It's because of Maxey, in large part, that the University has such a strong tradition of training ground-water hydrologists."

Bredehoeft has created his own legacy, as well.

"Just as Maxey was one of the most influential people in hydrogeology in his day, John is one of the most influential of Maxey's students," notes Cartwright.

Alumni News

Obituaries

William E. McCommons, B.A. '47, died March 14. He was 75. McCommons founded McCommons Oil Co. in 1955 and was chair of the company at the time of his death. Born in Orrville, Ohio, McCommons served three years with the 6th Army Infantry in New Guinea and the Phillipines and with the elite Alamo Scouts, the vanguard force in the occupation of Japan. He was awarded two Bronze Stars for valor, two Presidential Citations and the Purple Heart for wounds suffered from an enemy hand grenade during hand-to-hand combat.

McCommons had been active in the Boy Scouts since he joined in 1933. An Eagle Scout, he was a co-founder of Troop 800 and one of its leaders for 26 years. He and his wife Mary, who survives him, shared a passion for geology and archaeology. They traveled to Mexico, Central and South American and to the Middle East, Polynesia, Southeast Asia and China where they always took time to explore ancient cultures and civilizations. Several days before his death, McCommons

completed an historical novel on links between Mesopotamian and pre-Columbian South American cultures.

In addition to his wife, McCommons is survived by three sons, Bruce, Scott and Warren; his sister, Jean Garriott; his stepsister Doris Dale; his brother-in-law, Ralph Widener; and five grandchildren.

W. L. (Steve) Stevenson, B.S. '52, M.S. '55, died February 7. He was 66. He worked for many years for Shell Oil.

Dave McEachran, M.S. '85, died March 31. He had been battling Lou Gerhig's disease for several years. He did his thesis work on the Hudson Valley fold-thrust belt. After receiving his degree, McEachran worked for Rockware Inc., a computer software company in Denver that produces software for geological applications. He developed many programs, mostly for structural-geology applications, that are now used worldwide. He is survived by his wife and a three-year-old son.

Alumni News is divided by decade. Those who were affiliated with the Department during part of one decade through to the next are listed according to the last degree received. Within each decade, items are listed in yearly sequence, not alphabetically.

Fifties

William L. McKenzie, B.S. '50, is a retired petroleum consultant and licensed professional geologist with the State of Florida. His wife, Kathleen, passed away in 1996.

James Palmer, M.S. '56, president and owner of Sigma Consultants,

Inc. was recently appointed as a board member of the State Licensing Board for Geologists under the new Professional Geologist Licensing Act. As a board member he will help implement the new law and review applications for licensing by geologists who expect to practice in Illinois. Palmer taught at Eastern Illinois University for several years and later moved to the Illinois State Geological Survey where he accepted early retirement in 1985. He has practiced geology for more than 40 years, primarily in Illinois and the Illinois Basin. Palmer lives in Charleston, Ill., with his wife, Mary.

Sixties

After 35½ years with the Illinois State Museum, **Richard Leary**, Ph.D. '80, retired as of January 1st. "I am now 'curator emeritus' and will continue my research at my own pace," he writes. "There is still work to be done on the early Pennsylvanian non-swamp floras of western Illinois. With a son (and grandson) in Kirkland, Wash., and a daughter (plus granddaughter and grandson) in Vilnius, Lithuania, I will be doing a lot of traveling! Next week, my wife and I leave for a week-long cruise of the Greek islands. From there we travel to Vilnius for three weeks visiting and touring the Baltics and St. Petersburg, Russia. We are looking forward to many years of active nomadic life!" Leary can be reached at leary@museum.state.il.us

James D. Carl, M.S. '60, Ph.D. '61, has finished 30 years of teaching in the SUNY system at Potsdam, NY. He was professor of geology in a department with five faculty and about 50 majors. His research has been on the geochemistry of Precambrian igneous and metamorphic rocks in the northwest Adirondack Mountains. "I have had lots of contact with Canadian geologists who work on the shield," he writes. "And I've recently published a set of Civil War Letters of a New York State soldier." He and his wife, Susan, have four grown children, one of whom is a graduate student in geology. A daughter, Anita Beth, married in November of '97 and everyone gathered in Potsdam for the first time in seven years. Carl and his wife have three grandchildren. He can be e-mailed at carljd@potsteam.edu

Daniel A. Textoris, Ph.D. '63, says of the newsletter, "keep the newsletters coming, and I wish MORE alumni would respond."

Albert D. Glover, M.S. '64, is a geologist emeritus with the Pennsylva-

nia Geological Survey. He retired in 1996 as chief, western regional section, Geologic Mapping Division with more than 33 years of service. He works as a volunteer at the survey in completing the Jefferson County, Penn., coal report, and have 17 Survey publications. He writes, "The newsletter is great, why don't more alumni tell us about themselves?"

Louis W. Butler, II, Ph.D. '69, retired in 1996 after 37 years of federal, civilian and military service as an oceanographer and earth scientist. His principal activities were with the National Oceanic and Atmospheric Administration in many oceans, and finally, in Washington, D.C., behind a desk. He remarried in 1995 and has four children, six grandchildren and a seventh on the way. He is studying the history of art, master gardening, Scotland, Ireland and the Virginia/Maryland area. He works part-time as a master cruise counselor and still loves the sea. He is active in the local alumni chapter.

Seventies

William I. Ausich, B.S. '74, is professor and chair of the Department of Geological Sciences at The Ohio State University. He served as chair for the 1998 North-Central Section Geological Society of America Meeting held during March at The Ohio State University. He writes, "I was pleased to pass the leadership of this meeting on to Dennis Kolata, another U of I alumnus, for the 1999 meeting in Urbana!" Ausich can be e-mailed at ausich.1@osu.edu

Roy Spitzer, B.S. '71, M.S. '77, is associate and senior project engineering geologist with Rocky Mountain Consultants, Inc. He works primarily on geologic and geotechnical aspects of dams and reservoirs and tunnels in the Rocky Mountain west. He writes, "I enjoy the department news. It's fun to see the directions geoscience education

has taken—also fun to catch a glimpse of names I know in the alumni news."

Murry S. Gerber, M.S. '78, has been appointed president and chief executive officer of Equitable Resources, Inc. (ERI). He assumed his new position June 1. A 20-year Shell Oil Company veteran, Gerber will be leaving his position as chief executive officer of Coral Energy, a Shell affiliate he helped to create in 1995. While at Shell, Gerber also served as treasurer and led the strategic planning and financial activities for Shell's domestic exploration and production business. He also was responsible for managing various exploration programs in the U.S. and the offshore Gulf of Mexico.

Eighties

Gary Fleeger, M.S. '80, has been a hydrogeologist at the Pennsylvania

Geological Survey since April Fool's Day, 1996. After various jobs in private industry and government in Colorado and Pennsylvania over the last 18 years, he says he's finally "found a home."

"I started the day after Al Glover, M.S. '64, retired so that the Survey could maintain their quota of two Illinois graduates (Bill Sevon, Ph.D. '61, is still here, also)," he jokes. Fleege recently finished an educational book on groundwater in Pennsylvania, and a geologic guide to Moraine and McConnell's Mill State Parks. He's currently working on a statistical analysis of the hydrogeological characteristics of all the stratigraphic units on the state geologic map, and converting the recently completed park guide to a web page on the Survey web page (www.dcnr.state.pa.us/topogeo/).

Fleege is also now the secretary-treasurer for the Field Conference of Pennsylvania Geologists. The previous secretary-treasure (State Geolo-

We received numerous responses to Hilt Johnson's obituary, including the following:

James D. Carl, M.S. '60, Ph.D. '61, writes "I appreciate reading of Hilton Johnson and thanks for honoring a good man."

Roy Spitzer, B.S. '71, M.S. '77, writes that he "was saddened to read of Dr. Hilton Johnson's death. Dr. Johnson helped me find the ways to get through graduate school. In the classroom he challenged me, as an advisor he provided excellent guidance—he even helped me get an interview for a part-time job in geology while I was going to school. Besides all the help that he provided—even though I never got to know him well—I always felt that he was someone to be trusted and a 'really good human being.' I had always meant to write him and thank him for his help. I'm sorry I procrastinated. I'm sure there are many other former students with

similar stories. The University and the geology community will miss him."

Gary Fleeger, M.S. '80, writes, "I just got my alumni newsletter and was shocked to learn that Hilt Johnson had died. We had kept in touch periodically since I left in 1980, but hadn't since I last visited campus in 1994. I believe that the department should definitely replace Hilt. The department has a long history and outstanding reputation in glacial geology because of Hilt and George White. Because of that reputation, your prime location for the study of glacial sediments, and the presence of the ISGS on campus, the glacial geology program should continue. It's hard to imagine a major, Mid-western university geology program without glacial geology."

gist Don Hoskins) had held the job for 30 years. Fleegeer built the Field Conference web page (www.paonline.com/gfleegeer/fcopg/), and also one for the Harrisburg Area Geological Society (www.paonline.com/gfleegeer/hags/).

Fleegeer's daughter, Susannah, is now in first grade. "She's already smarter than the old man," he writes, "and seems to be teacher's pet at school. After 10 years, my wife Karen is starting to adjust to the East after living her first 34 years in the West. Hilt Johnson never could understand why I didn't like living in Colorado and wanted to move back east. Neither can Karen, but here we are!"

Fleegeer adds, "I'd like to see more news from alumni in the newsletter. Now that I have been gone (as has much of my hair) for almost twenty years, and most of the faculty and staff has changed in that time, the news from alumni holds the most interest for me."

Fleegeer can be reached at the Pennsylvania Geological Survey, PO Box 8453, Harrisburg, PA 17105-8453 (717) 787-2169 (work) (717) 957-0049 (home) or on line at: gfleegeer@paonline.com.

"I'd welcome hearing from any of my old friends," he says.

Susan (Frey) Collins, B.S. '83, is a technical support geophysicist at GX Technology. She had twins, Jonathan Randolph and Elizabeth Ann, on Feb. 18. She can be reached at scollins@gxt.com or (713) 789-7250.

Lawrence Fieber, B.S. '83, is the director of Environmental Assessments at Mostardi-Platt Associates, Inc. He manages 20 geoscientists performing environmental due diligence investigations. He also is serving as president of the Illinois Indiana Section of the American Institute of Professional Geologists (AIPG) and is a board member of the Lake Michigan States Section of the Air and Waste Management Association (AWMA). He can be e-mailed at: llfieber@aol.com or lfieber@mostardiplatt.com



In Memoriam: K.O. Emery

Kenneth O. (K.O.) Emery, B.S. '35, M.S. '39, Ph.D. '41, died April 12 following a brief illness. He was 83. Emery was scientist emeritus at the Woods Hole Oceanographic Institution (WHOI). He received the

University of Illinois Geology Department's Outstanding Alumnus award in 1996.

Emery believed the most important duty of a scientist was synthesis, which required broad knowledge. Throughout his lifetime, Emery's eclectic interests included English and French gun flints from the chalk on the two sides of the English Channel, and coins discovered in foreign ports that reflected marine themes, as well as subjects more within the realm of marine geology.

Emery participated in a U.S. Geological Survey study of the Bikini Atoll before the atomic bomb tests were conducted there. After the war, he taught geology for 16 years at the University of Southern California and did research in the Gulf of California.

In the early 1960s, Emery moved to Woods Hole Oceanographic Institute (WHOI), where his first project was the study of the entire Atlantic continental margin between Labrador and Mexico. Undertaken in conjunction with the U.S. Geological Survey (USGS), this effort ended in 1967 with the establishment of a marine branch of the USGS.

Emery was the Henry Bryant Bigelow Oceanographer from 1975 to 1979, and served as first dean of the Woods Hole Oceanographic Institution/Massachusetts Institute of Technology Joint Graduate Program. He officially retired in 1979, though his enthusiasm for ideas and his friendliness to students and peers continued unabated until his death.

A former Guggenheim Fellow, Emery wrote almost 300 articles and 15 books and was a member of many professional organizations. He received numerous honors, including election to the National Academy of Sciences and the American Academy of Arts and Sciences in 1971, The Prince Albert 1er de Monaco Medal from France in 1971, and the University of Illinois Alumni Achievement Award in 1977.

He is survived by two daughters, Barbara K. Wish of Randolph, Mass., and Charlet E. Shave of North Falmouth, Mass; a granddaughter, Rebecca A. Shave of Amherst Mass.; and two brothers, Almon C. Emery of Memphis, Tenn., and Harold B. Emery of Arvada, Colo., and Norman, Okla. His wife of 42 years, Caroline Alexander Emery, died in 1983.



Cyclotherm Club, May 1947 (photo submitted by James H. Fisher, B.S. '47)

Valla (Jones) Earl, B.S. '84, who wrote last time about her work with the Washington State Department of Transportation Construction, can be e-mailed at earlv@wsdot.wa.gov

Virginia (Ginny) Colten-Bradley, Ph.D. '85, began a new position at the Environmental Protection Agency last January. She is in the office of solid waste economics, methods and risk assessment division and is working on risk assessment and groundwater fate and transport modeling for municipal and industrial waste management units. Her husband, Michael Bradley (Ph.D. '82 in economics from the University of Illinois) is working on strategic planning for Freddie Mac. Their children, Anna (9) and Kara (6) are both happy and healthy. You can e-mail Ginny at colten-bradley.virginia@epamail.epa.gov

David B. Mitcheltree, B.S. '87, received his Ph.D. in geochemistry from the University of Tulsa last spring. He reports that he moved to Washington, D.C., in July. "If you're in town, get in touch!" he says. He can be reached at dbmtree@aol.com

Tom Zychinski, M.S. '89, works as a hydrogeologist for TetraTech EMI, a consulting firm in the metro Kansas City area. He and his wife, Shari, had a son, Henry Thomas on May

27, 1997. Tom says "Hi" to his old roommates Rob Lander, David Haymes and Dave Watso. He can be e-mailed at isabel2@aol.com

Nineties

Joseph P. Fagan Jr., B.S. '91, has been a geophysical engineer with Pearson, deRidder & Johnson Inc. of Lakewood, Colo., since 1993. His principal work involves merging potential field geophysics with other geophysical and geologic data to provide integrated interpretations for the petroleum and mining industries. He recently published an article in the *Oil & Gas Journal* titled "Aeromag interpretation technology helps chase Cambrian in New York." The article was co-written with David L. Copley.

Rod Padgett, B.S. '91, works for Bechtel performing construction engineering duties on environmental restoration projects at naval bases in the Jacksonville, FL., area. He and his wife, Jennifer Eunson, had their first child, Noah William, last December.

Steve Hageman, M.S. '88, Ph.D. '92, writes that he had a great trip to Norway to visit Rob Lander, Ph.D. '91, and Linda Bonnell, Ph.D. '90. He was very impressed with their operation (they are also husband and wife) and thought alumni would like to know there is a feature article about their company in the March *AAPG Explorer*. Hageman works in the office of academic affairs at Chicago's Field Museum of Natural History. His e-mail address is shageman@fmppr.fmnh.org

Donald J. Colby, B.S. '97, works at the University of Illinois Foundation as network analyst, hardware and software installation maintenance, user training, purchasing and student employee supervisor. He writes that he finds the newsletter "*Outstanding!*" Well done, informative, interesting and too short." His e-mail address is d-colby@uiuc.edu

Cathy Hier, B.S. '97, is working on her Ph.D. at the University of Minnesota. She is studying the lower crustal kinematics of the Caribbean/South American Plate Boundary. She recently received a three-year NSF Graduate Student Fellowship. Her e-mail address is chier@geolab.geo.umn.edu

Calling All Alums—Send Us Your Stories!

Have you noticed that the most frequent comment from alumni when they write to us is, "why don't more people write in and tell us what they're doing?!" So c'mon everyone, and drop us a line. Your classmates would love to read about what you are up to. We'd also like to inaugurate a section with your favorite memories and stories from your University of Illinois days. We'll include practical jokes, field trips gone awry, anecdotes about professors, or anything else that you remember about your student days.

REMEMBER: You can send your update for the Alumni News via e-mail: geology@uiuc.edu

Let's Keep In Touch

Please take a few minutes to let us and your classmates know what you've been doing: promotions, publications, election to office, marriage, parenthood, moving, awards. We'd all like to hear from you. Send your news to the Department of Geology, 245 Natural History Building, 1301 West Green Street, Urbana, Illinois, 61801; fax 217-244-4996; e-mail geology@uiuc.edu.

Name _____ Response date _____

Home address _____ Office address _____
(indicate if changed)

Home phone _____ Office phone _____

E-mail _____

Degrees from Illinois (with year) _____ Degrees from other universities _____

Present employer and brief job description _____

Other news you would like to share _____

Your comments on the alumni newsletter _____

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